The World List of Threatened Trees

World Conservation Press 1998
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Compiled by

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Founded in 1948, The World Conservation Union brings together States, government agencies and a diverse range of non-governmental organizations in a unique world partnership: over 895 members in all, spread across some 137 countries.

As a Union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The World Conservation Union builds on the strengths of its members, networks and partners to enhance their capacity and to support global alliances to safeguard natural resources at local, regional and global levels.
FOREWORD

I welcome this publication from WCMC of The World List of Threatened Trees. The importance of this unique document is reflected in the comprehensive collection and methodological analysis of information of the conservation status of tree species worldwide. The preparation of this work, which documents the threatened status of around ten percent of the world's tree species, is an impressive task, made possible through a collaborative and networking approach. WCMC has worked closely with the Species Survival Commission of the World Conservation Union and has successfully drawn together herbarium taxonomists, field botanists, forest genetic resources specialists, foresters and conservation biologists to pool their collective expertise on the world's trees in a remarkably short space of time.

Through its forest genetic resources programmes initiated in 1991, IPGRI has forged linkages with WCMC on this work, particularly in the process of the collection of information through workshops in collaboration with and for the benefit of national programmes. Some elements of IPGRI's activities on forest genetic resources which will benefit from the information in this publication are:

- Setting priorities for forest genetic resources conservation and use.
- Assessing patterns of species distribution, genetic variation and threats in forest ecosystems.
- In situ conservation: methodologies for assessing impacts of anthropogenic pressures in forest ecosystems and trees.
- Ex situ conservation: practical procedures for seed handling, storage and germination of species of high economic value in tropical forest ecosystems.
- Regional collaboration: networking and training activities in forest genetic resources.

Given the range and scale of threats to global forest biodiversity, the scope of forest conservation is clearly broad and activities that focus on conservation of ecosystems, species and intraspecific genetic diversity are all required. Within this broad approach, realistic targets are needed through focusing on priority species, priority populations and the level and extent of genotypic variation. In the location and assessment of diversity in forest ecosystems, IPGRI is looking at patterns of genetic diversity and levels of genetic erosion. These vary according to the nature of different forest ecosystems in different geographic regions and find their expression in the diversity of tree species. We need systematic decision making for forest conservation and the collection of species information is of great relevance in setting forest conservation priorities.

Information is needed on the kinds of species, threats and levels of threat, conservation status of species, in situ and ex situ conservation activities and requirements. Economic data are also needed. WCMC has made major strides forward in locating this information on tree species and encouraging others to develop more detailed national information.

I hope that the information contained in this publication and the supporting data management resources developed by WCMC will make an important contribution to the planning and implementation of forest conservation and sustainable management worldwide. We need to go further in refining and developing the information but with this impressive start and working in partnership with all key organisations we can give tree conservation the importance it deserves in the twenty first century.

Abdou-Salam Ouédraogo
Forest Genetic Resources, IPGRI
Chairman, African Tree Specialist Group
ACKNOWLEDGEMENTS

The World List of Threatened Trees is the principal report from a three year project entitled the Conservation and Sustainable Management of Trees, generously funded by the Government of the Netherlands. We are most grateful for this financial support, and would like to express our thanks in particular to Ton van der Zon, Gerrie Willems and Felix Hoogveld of the Netherlands Ministry of International Affairs.

The Conservation and Sustainable Management of Trees project has been undertaken by a team working at WCMC in collaboration with SSC Groups and other experts worldwide. The WCMC team consisted of Sara Oldfield, Project Leader; Charlotte Lusty, Data Management Officer; Martin Sneary, Information Analyst; Amy MacKinven, Research Assistant and Julie Reay, Project Administrator. Many other staff members at WCMC have supported the development of the project and particular thanks are due to Tim Johnson who supervised the project and to Harriet Gillett, Manager of the Threatened Plants Database. Sam Kanyamibwa and Javier Beltran have assisted with translation and communication with experts involved in the project in French and Spanish speaking countries. In addition the following volunteers, temporary staff and students have worked on the project at WCMC: Harriet Elson, Alejandro Flamenco-Sandoval, Kevin Holohan, Bill Oates, Liz Porter, Gemma Smith and Simon Reeve.

Charlotte Lusty has compiled the majority of species entries contained within this book and has reviewed the species data received from experts. She designed the standard data collection form incorporating ideas from David Hunt, Susan Iremonger, Valerie Kapos and others at WCMC. Martin Sneary has been responsible for the design and development of the Tree Conservation Database from which the species summaries have been produced as direct outputs, with support from Cardinal Consultants. Julie Reay has undertaken the formatting of this document for publication. The species summaries were proof-read by Margaret Deith.

Fifteen consultants, either institutions or individuals, have been involved in the Conservation and Sustainable Management of Trees project, evaluating and reviewing tree species data under contract to WCMC. We are grateful for all their work on the project. Joaquina Pires-O’Brien played an important role in coordinating input from experts on the Brazilian flora. Dennis Johnson coordinated the collection of data on palm species drawing on an extensive network of contacts. Collaborative contracts with various national institutions proved to be successful in ensuring linkages with the development of national biodiversity datasets. The contribution from experts in a voluntary capacity has, in addition, been of major significance with, for example, many herbarium botanists generously contributing their time to this tree conservation initiative.

SSC Groups have been closely involved in implementation of the project. Members of the Conifer Specialist Group, Charied by Aljos Farjon, have held a series of meetings in the UK funded by the project. They have used the standard data collection form to compile information on about 300 conifer species and have decided to continue this procedure for future updating. Members of the Temperate Broadleaved Trees Specialist Group, Chaired by Vicomte Philippe de Spoelberch, have provided data on selected genera and species and have prepared detailed species case studies for publication in Broadleaves, the Group’s newsletter. Wendy Strahm has provided liaison between the project and the plant conservation activities of IUCN and we are grateful for her support.

Craig Hilton-Taylor, of the National Botanical Institute (NBI) of South Africa has coordinated the assessment of Southern African trees. To do this he has drawn on the responses of 11 amateur and professional botanists and combined this with information from NBI’s Southern African Threatened Plants Database (SARARES) and literature references. This contribution is gratefully appreciated.
The experts listed below have all made invaluable contributions to the project and we are most grateful for the information and expertise they have provided. For the provision of moral support, guidance and encouragement throughout the project we would like to express our particular gratitude to Peter Ashton, Aljos Farjon, William Hawthorne, David Hunt, Jon Lovett, Adrian Newton and Abdou Salam Ouédraogo.

We also acknowledge with gratitude the institutional support provided by leading botanical and forestry institutes. Leiden’s Rijksherbarium/Hortus Botanicus and Missouri Botanical Garden have been major sources of taxonomic and conservation status information on tree species of Southeast Asia and Latin America respectively. Links with botanists working in the field have also been facilitated greatly by contact with these two institutions. A wide range of organisations responded to the user needs survey undertaken in the early stages of the project and their information and suggestions were all appreciated.

The Forest Resources Division of FAO has been supportive of the project and a Memorandum of Agreement has been developed between WCMC and FAO covering tree species conservation data exchange. The International Plant Genetic Resources Institute (IPGRI) has also been involved in the development of the project and we are grateful for the support of these two organisations.

The Plant Resources of South-East Asia (PROSEA) project has been an invaluable source of information particularly on the uses of tree species. We are grateful for the cooperation with this project particularly through its office at Wageningen Agricultural University in the Netherlands.

The Center for Plant Conservation has generously provided information and advice with regard to trees of North America. The California Native Plant Society (CNPS) kindly provided a dataset of rare trees of California for inclusion in The World List of Threatened Trees.

Information compiled by WCMC for the 1997 IUCN Red List of Threatened Plants formed an important starting point for the World List of Threatened Trees. Harriet Gillett and Kerry Walter, the editors of the Red List are thanked for their help with the Conservation and Sustainable Management of Trees Project. The IUCN Red List was compiled in partnership with the following organisations: Nature Conservancy (TNC); National Botanical Institute (NBI), South Africa; Smithsonian Institution; Environment Australia; Royal Botanic Garden; Royal Botanic Gardens, Kew and NYBG – The New York Botanical Garden.

Acknowledgements


We record with great sadness that Salmon Okelo Achieng’ was tragically killed during the time he was collecting data on the conservation status of endemic trees of Kenya. He was an enthusiastic field worker and contributed considerably to the discussions at the regional workshop for the project held in Harare in July, 1996, the first time he travelled out of his home country. We will remember Salmon with gratitude for his contribution to African tree conservation.

We are grateful for the help extended by the staff of the libraries at WCMC, the Department of Plant Sciences, Cambridge University, and at the Cory Lodge, Cambridge Botanic Gardens.

Tony Miller kindly supplied the cover photograph used in the cover design.

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INTRODUCTION

The conservation of biodiversity and its sustainable management are internationally recognised as vital global concerns. Identification of the components of biodiversity and the threats they face are important steps in planning for conservation action. Tree species are ecologically, culturally and economically valuable components of biodiversity and their conservation is essential to the well-being of people in all countries of the world. With increasing general pressures on ecosystems and selective pressures on species, it has become apparent that many tree species are threatened with extinction. Information on the degree and extent of threat has, however, previously been scattered and scarce. The World List of Threatened Trees presents the results of the first survey of the conservation status of trees species worldwide.

Assessment of the conservation status of the world’s tree species is a major task given the overall number of trees believed to exist. The world’s tree flora is estimated to total around 100,000 species. It is not yet possible to give a precise figure because definitions of the term “tree” vary as do species concepts. One definition of “tree” which is commonly followed in temperate regions is a woody plant growing on a single stem usually to a height of over two metres. This definition has been adopted by the IUCN/SSC Temperate Broadleaved Tree Specialist Group. The Group recently compiled a list of temperate woody plant genera and estimated the number of tree species within these genera. This was undertaken to establish the scale of the task of conservation evaluation for temperate tree species. The tentative result was that there are 21,000 species in plant genera which are predominantly woody and temperate in distribution (Hunt, 1996). The richness of the world’s tropical tree flora is certainly much greater and is also in greater need of taxonomic attention. In reality we can only make an informed guess at the total number of tree species. Nevertheless there is an urgency to document all available information on the growing number of tree species which are of conservation concern.

In evaluating the global conservation status of tree species the new IUCN Red List categories and criteria have been followed. The general aim of the new IUCN system of categorising threat is "to provide an explicit, objective framework for the classification of species according to their extinction risk" (IUCN, 1994). The IUCN categories and criteria have been applied to a broad selection of restricted range and exploited tree species as part of a major collaborative information gathering and evaluation exercise. In pre-selecting tree species for conservation evaluation, species from all parts of the world and most taxonomic groups were considered. Certain taxonomic groups were, however, excluded for pragmatic reasons. These include tree ferns in the families Cyatheaceae and Dicksoniaceae, tree species in the cycad families Cycadaceae and Zamiaceae, and arborescent members of the Cactaceae family. It was anticipated that the conservation status of species in these families would be evaluated in parallel exercises by the appropriate SSC Plant Specialist Groups.

As part of the conservation evaluation, the taxonomy and nomenclature of each of the tree species categorised as globally threatened have been checked, wherever possible, against current literature or by appropriate experts. Supporting information has been collected on the distribution, threats, conservation measures, the habitat type of the species, the uses of the species, level of use and ecological information. This more detailed information is available in electronic form in the Tree Conservation Database supplementing the summary information on individual species provided in The World List of Threatened Trees.

Over 7300 tree species are documented as globally threatened in this publication (see Table 2), based on the 1994 IUCN categories and criteria. In addition, in the Appendices, supplementary lists of globally threatened trees are given. Appendix 1 is a list of Australian globally threatened trees prepared for this publication by Lyn Meredith, Threatened Species and Communities Section, Environment Australia. Appendix 2 provides a list of Japanese tree species taken from the 1997 Red List of Japanese Vascular Plants compiled by the Threatened Species Committee, Japan Society of Plant Taxonomists (Yahara, T. 1997). Unfortunately this publication was not available in time to prepare
species summaries for inclusion in the main text of the book. Appendix 3 provides a supplementary list of tree species from other parts of the world which are included as globally threatened in the 1997 IUCN Red List of Threatened Plants but which have not yet been evaluated against the new IUCN categories and criteria. Generally this reflects lack of current information on the species concerned.

Taking all this information together, nearly nine percent of the world's tree flora is documented as globally threatened with extinction. Given the economic and local value of tree species and their role in defining ecosystems, this represents a profound diminution of the world's biodiversity. The availability, for the first time of consolidated tree species conservation information should have a significant impact on international conservation policy and planning. It is hoped that this book will highlight the need for sustained efforts to conserve maximum tree species diversity for the benefit of people worldwide.

Evaluating the global conservation status of the world's trees is clearly a major undertaking and has only been possible through collaboration with a wide range of experts and institutions with local knowledge of tree biodiversity. A full list of contributors is given in the acknowledgements section and the assessors of the conservation status of individual tree species are noted with the species summaries. The identification of a network of botanists willing to contribute their expertise to the conservation of tree species is in itself an important factor in the promotion of global biodiversity conservation.

WHY SPECIES INFORMATION IS NEEDED

The need for sound biodiversity information on which to base conservation policy is now widely accepted. The need for biodiversity information to support policy and management objectives for tropical forests is, for example, highlighted in Box 1. Biodiversity is generally considered at three levels: the ecosystem, species and genetic resource level. As a broad indicator of the expression of biodiversity on a global scale, ecosystems are generally considered and ecosystem diversity is taken as a measure of species and genetic diversity. This is partly because of the sheer complexity of biodiversity below the ecosystem level, the lack of consistent and comparable information for most groups of organisms and the need to make rapid progress in biodiversity assessment for conservation action. Species information can, however, when organised in a coherent manner, following accepted information standards, reinforce ecosystem information and provide a crucial link with information on the component genetic resources. Various recent initiatives (SBSTTA, 1996; Van Bueren and Duivendoorn, 1996) have recognised that tree species diversity in particular can be used as a surrogate for overall species diversity in forest ecosystems given the relatively good availability of tree species information. Information on the distributions and convergences of restricted range species can be used to determine patterns of biodiversity.

Information on the threat status of species is essential in planning for conservation and sustainable management of individual species and also for use as an indication of ecosystem status. Information on threatened species is becoming increasingly available, at least for selected taxonomic groups. For plants in general, many national lists of threatened species and plant Red Data Books have been produced and recently the first international Red List of plants was published by IUCN (Walter and Gillett, 1998). This global list represents many years of effort to record and collate the names, conservation status and distribution of rare and declining plants. The database from which the global list was produced and national Red Lists and databases vary in the extent to which they record habit. Information on the habit, in other words whether the plant is a tree, shrub or herb, can provide an important indication of the ecological role of the species. Information on tree species has been seen as a particular requirement to support forest conservation policy but has not, until now, been readily available at an international level.
Box 1. Biodiversity information for conservation and wise use of tropical forests

Biodiversity information is needed to support the following policy and management objectives:

- Land use planning for conservation and sustainable use of forest land
- Designation and management of totally protected natural forest areas
- Protection and reintroduction of endangered species
- Support, adoption and documentation of indigenous management of tropical rain forests
- Use and valuation of non-timber forest products
- Sustainable timber production
- Rehabilitation and productive use of secondary forests

Van Bueren and Duivenvoorden, 1996

COLLECTION AND RECORDING OF INFORMATION

The starting point for the collection of information on the conservation status of trees has been data holdings in the Threatened Plants Database maintained by WCMC. This records information on the distribution, global and national conservation status of plant species worldwide and has been used to produce the 1997 IUCN Red List of Threatened Plants. Important sources of conservation status information within this database include the IUCN/SSC Plant Specialist Groups, individual experts, national red lists and Red Data Books and, of major importance, the partner organisations listed in the acknowledgements section of this book.

Information on the conservation status of trees included in the Threatened Plants Database was derived from various studies in addition to the general information sources referred to above. The conservation status of temperate tree species was, for example, reviewed by WCMC in collaboration with the International Dendrological Society (IDS) and a Threatened Temperate Tree List was published in 1990 (Lear, 1990). This was updated for an IDS Symposium held in 1994 (Lear and Hunt, 1996). Information on the conservation status of conifer species has been developed by the SSC Conifer Group (Farjon, Page and Schevellis, 1993, Farjon, 1996) and made available for incorporation in the Threatened Plants Database. Information on the conservation status of tropical timbers in trade was collected for the International Tropical Timber Organisation with data collection concentrating on timber species of Southeast Asia and Africa (Oldfield, 1991). Collection of data on trees of Latin America was subsequently undertaken by WCMC with support from the UK Government.

When the tree species conservation survey was initiated, the Threatened Plants Database maintained by WCMC contained records of about 5000 tree species, 4,000 of which are tropical and 1,000 temperate in distribution. Over 600 of these species were recorded as globally threatened using the old IUCN categories of threat. Initial tasks in preparation for The World List of Threatened Trees were to identify and flag tree species in the Threatened Plants Database and to add a significant number of tree species name and distribution records from various parts of the world. Main geographical areas for which tree name and distribution records were added initially include Ghana, Nigeria, East Africa, Madagascar and Indonesia. Additional tree species name and distribution records were added through the electronic data merges in preparation for the 1997 IUCN Red List of Threatened Plants. In the first
year of data collection, tree species records were increased from 5000 to 14,000. A list of 3200 tree species recorded as globally threatened according to the old IUCN categories of threat was prepared for review at a Technical Workshop held in Wageningen in November 1995.

Following the Technical Workshop, a data collection form was designed for experts to provide updates to existing data holdings on tree species in the Threatened Plants Database, and to record new information on species of conservation concern. This is reproduced in Appendix 5. Species were selected for review if they were believed to be single country endemics, threatened in significant parts of their distribution ranges or known to be widely exploited.

Standard data collection forms were sent to over 300 botanists or foresters with expertise in a particular geographical area or taxonomic group of trees. In addition a series of meetings, workshops and interviews was held to discuss the conservation status of tree species and to assign the IUCN categories. Four international workshops were held. The first was the Technical Workshop held in Wageningen which was successful in refining the scope, objectives and methodology for data collection. Three regional workshops have subsequently been held in Zimbabwe, July 1996; Costa Rica, November 1996 and Viet Nam in August 1997. These workshops provided an opportunity for participants to present and discuss national case studies on the conservation status of trees, to discuss conservation status in relation to sustainability issues and to work on species conservation assessments in small working groups. Training in the application of the IUCN categories and criteria was provided. The conservation assessments focussed on relatively widespread, exploited species which are difficult to evaluate without information from a significant proportion of the species’ range. The evaluations were based on preliminary species profiles prepared by WCMC.

At the regional workshop held in Zimbabwe a draft list of globally threatened tree species occurring in Africa was reviewed. A follow-up meeting was held during the AETFAT Congress in February 1997 to review African data collection and hold an inaugural meeting of the SSC African Tree Specialist Group. Also following the Zimbabwe regional workshop, assessment of the conservation status of trees of Southern Africa was coordinated by Craig Hilton-Taylor of the South African National Botanical Institute. Data sheets for all tree species considered to be threatened in southern Africa were sent to 23 amateur and professional botanists situated in Namibia, South Africa and Swaziland. Documentation explaining how to fill in the data sheets and how to use the new IUCN Red List Criteria and Categories was provided. Each person was asked to fill in data sheets for those species which they were familiar with in the field. Eleven people responded. Information from the replies was combined with information from the National Botanical Institute's southern African Threatened Plants Database (SARARES) and information from the literature to obtain an overall assessment.

Discussions held with botanists at the Rijksherbarium, Leiden and Missouri Botanic Garden have also enhanced the tree conservation evaluation process. Botanists at the Rijksherbarium provided information on the taxonomy and conservation status of trees in Southeast Asia. Assistance provided by Missouri included information from various major checklist projects notably for Peru (Brako and Zarucchi, 1996) and Ecuador (Jorgensen and León, in prep.) and the facilitation of contacts with botanists working in many Latin American countries.

Collection of tree conservation information was also facilitated by collaborative arrangements with national agencies. These have both provided information for the global tree conservation dataset and stimulated the collection of data for national use. Examples include:

Production of A Draft Red List of Woody Plants of Uganda through a contract with Makere University Institute of Environment and Natural Resources, Uganda.

Support for the collection of information on endemic trees of Kenya by the Plant Conservation Programme, National Museums of Kenya.

Collection of data on endemic tree species of Peninsular Malaysia through a contract with Dr Lillian Chua, Forest Research Institute of Malaysia.
Compilation of data on the conservation status of Panama’s trees by Martin Mitré, Smithsonian Tropical Research Institute, Panama.

Compilation of data on the endemic and indigenous tree species of the Seychelles by the Conservation Section of the Ministry of Foreign Affairs, Planning and Environment, Seychelles.

Provision of information from a Mexican tree specimen database and conservation evaluation by Dr Mario González-Espinosa and Neptali Ramírez-Marcial, ECOSUR, Chiapas following agreement with CONABIO.

Preparation of a list of rare and threatened trees of Suriname by Marga Werkhoven, National herbarium of Suriname, updating the Rare and Endemic Plant Species in Suriname from the Conservation Action Plan for Suriname (1990) and subsequent 1997 list of Rare and Endemic Plant Species in Suriname.

Provision of information on threatened trees of Viet Nam at the regional workshop and decision by Vietnamese botanists represented to adopt the new IUCN categories of threat and apply them through the continuation of a national working group.

The SSC Plant Specialist Groups have been a major source of information and conservation evaluations for The World List of Threatened Trees. Members of the Conifer Specialist Group have used the standard data collection form to compile information on about 300 conifer species and have adopted this procedure for future updating of conservation status information. Members of the Temperate Broadleaved Trees Specialist Group have provided data on selected genera and have prepared detailed species case studies for publication in Broadleaves, the Group’s newsletter. In addition over 300 palm species, identified as trees from an initial list of threatened palms, have been evaluated using the standard data collection form by members of the Palm Specialist Group, coordinated by Dr Dennis Johnson.

In order to supplement the information provided by experts, WCMC has reviewed a wide variety of data sources including electronic databases, published Floras and Monographs, Red Data Books and grey literature. On the basis of this information, conservation evaluations have been undertaken by WCMC for species apparently of significant conservation concern. Wherever possible these have been sent out for expert review. Compilers at WCMC also recorded supplementary information on ecology and uses of species, drawing heavily for Southeast Asian species on the excellent PROSEA publications (Soerianegara and Lemmens, 1993; Lemmens, Soerianegara and Wong, 1995).

STORING INFORMATION

Following the Technical Workshop in Wageningen, a new database was designed to record tree species conservation information, resulting from the completed standard data collection forms. Amendments to the species and distribution records were initially recorded in the Threatened Plants Database maintained by WCMC, to ensure consistency with the broader global plant conservation dataset. Subsequently tree species scientific and common names, distribution records and in some cases use records were transferred electronically to a new Tree Conservation Database. The design of the Tree Conservation Database took into account a user needs survey of 500 organisations carried out prior to the Wageningen Technical Workshop, and discussions with FAO and IPGRI concerning tree conservation data management. The potential for harmonised data management with the following data management systems was an important consideration.

REFORGEN database system, developed by the Forest Resources Division of FAO, is a global database system designed to house information related to the world’s forest genetic resources.
TREESOURCE, a global information system on forest genetic resources, represents a collaborative effort between FAO, CIFOR, ICRAF and IPGRI, and has been designed to provide readily, reliable and accessible information on forest genetic resources.

A further key consideration was the requirement for a distributed database which could be made widely available in support of tree conservation initiatives. The database has been implemented using the latest generation of Microsoft Windows based software. It is designed to be simple to use and intuitive in operation, as well as conforming to recognised Windows standards. The choice of software tool was further influenced by the ability to link with other applications, including mapping tools. In addition, a Windows-style searchable help system has been developed. The system is implemented in Microsoft® Visual Basic and Access.

The species summaries recorded in The World List of Threatened Trees have been derived directly from the Tree Conservation Database which also records a considerable amount of supplementary information on each tree species.

APPLICATION OF THE IUCN THREAT CATEGORIES AND CRITERIA

IUCN categories of threat have been in use for over thirty years and are widely recognised as a standard for indicating the conservation status of individual species. The revised categories and criteria published in 1994 (IUCN, 1994) were developed to make the threat categories more quantitative, objective and equally applicable to all higher taxa of plants and animals. Under the new system, a category can only be assigned to a species if one or more of five criteria apply. Thus in order to qualify as Critically Endangered, Endangered or Vulnerable, evidence is needed to demonstrate that a species is experiencing, to various degrees, at least one of the following:

Criterion A  Population is seriously declining, or is expected to decline, at a defined rate.
Criterion B  Population is localised, within defined limits, fragmented and declining.
Criterion C  Population is small, according to specified numbers, and either declining at a defined rate or declining and with a specified population structure.
Criterion D  Population is very small, according to specified numbers, and acutely restricted, within defined limits.
Criterion E  Quantitative analysis showing the probability of extinction.

The use of criteria helps both to guide the assessor and to give transparency to the evaluation process. The rules for applying the IUCN categories and criteria are set out with explanatory notes in Appendix 4. Various criteria can be applied to any one species. The extent to which different criteria have been used in the tree species evaluations is summarised in Table 1. The use of Criterion E has been negligible for trees.

Table 1. Use of Criteria

<table>
<thead>
<tr>
<th>Criterion</th>
<th>A Population decline</th>
<th>B Population localised</th>
<th>C Population numerically small</th>
<th>D Population very small &amp; restricted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of criteria applications</td>
<td>22</td>
<td>56</td>
<td>6</td>
<td>16</td>
</tr>
</tbody>
</table>

At the outset of data collection for The World List of Threatened Trees experience with the application of the new categories was very limited. The new system differs quite radically in its method of application from the previous IUCN categories with which most botanists and conservation agencies have become familiar. Concerns were expressed initially about the applicability of the categories to tree species, mainly because of the lack of knowledge of reproductive biology and population numbers.
for the majority of tree species. Furthermore it soon became apparent that the longevity of tree species poses a particular problem in application of the categories, with regard to interpretation of rates of decline. Guidelines were prepared by Charlotte Lusty to assist expert evaluations for tree species and to help ensure consistency in application of the categories by different assessors, especially those working in isolation. The guidelines for trees were developed from recommendations made by William Hawthorne, following a detailed review of the application of the categories to Ghanaian tree species, and incorporated suggestions from other botanists using the categories for trees. The guidelines provide both assistance with interpretation of the criteria through suggested supplementary definitions of terms relevant to tree species and suggestions as to how different sources of information can be used to aid the evaluation process.

In order to qualify as globally threatened based on population reduction (A Criterion), *the population of a species should have an observed, estimated, inferred or suspected reduction of at least 20 percent over the last 10 years or three generations*. The expression of generation time as specified by IUCN, 1994 is the average age of parents in the population. Defining the generation time of a tree species is very difficult given that the capability of reproduction in tree species varies widely according to the age/size class of individuals. For evaluation purposes, the guidelines for trees suggest that where no information is available the generation time should be taken as 50 years for most tree species, 10-20 for pioneer species or small trees, 100 years or more for slow-growing trees. Following this estimation very many tree species potentially fall within at least the Vulnerable category given the rates of deforestation, and therefore implied population decline, or the rates of exploitation of mature timber trees, over the past 150 years.

Linking tree species distribution data with knowledge of the extent and decline of the ecosystem in which the species occurs has been the means by which the IUCN categories have been most commonly applied to trees. Criterion B and D are appropriately used for such cases where the threat status is based on the geographical restriction of species.

GIS (Geographical Information System) analysis of species distribution information has proved to be a very useful tool in applying Criterion B and Criterion D, Where species point localities, ideally based on verified specimen data, can be stored in a GIS, data can be very successfully manipulated to assess whether their AOO (Area of Occupancy) or EOO (Extent of Occurrence) are within the limits set by the Criteria B and D. David DuPuy and Jonathan Hughes have evaluated the conservation status of a subset of Madagascan leguminous trees in this way, combining species distribution data with vegetation and substrate data in a GIS application.

The guidelines encourage evaluators to use all available sources of secondary information to assess the situation faced by a particular species. In ideal circumstances information from verified herbarium specimens and field survey of populations would be combined with general knowledge of vegetation types and decline throughout the range of a tree species, together with information on levels of exploitation through time where appropriate. Where such information is not available, however, it has been possible, by examining geographical and altitudinal ranges, and habitat requirements of the species, to make preliminary evaluations of the conservation status.

In general the categories have not been applied using fully quantifiable information. This is fully compatible with the guidance provided by IUCN, 1994 which states that, *the absence of high quality data should not deter attempts at applying the criteria, as methods involving estimation, inference and projection are emphasised to be acceptable throughout*. Furthermore, given that data are rarely available for the whole range or population of a taxon, it may often be appropriate to use the information that is available to make intelligent inferences about the overall status of the taxon in question. In cases where a wide variation in estimates is found, it is legitimate to apply the precautionary principle and use the estimate (providing it is credible) that leads to listing in the category of highest risk.

Although the new IUCN Red List Categories are much more objective than their predecessors, there is inevitably considerable scope for subjectivity. Different expert assessors have applied the categories with differing levels of confidence with regard to available information and different
degrees of optimism regarding future trends. This has even applied when different assessors looked at the same species, where some, for example, have used Data Deficient and others have applied Critically Endangered. Some assessors have felt that they should use Data Deficient unless there have been recent field assessments of the species. This approach may be more appropriate where there are active conservation monitoring programmes but generally a greater degree of inference has been necessary. In such cases of divergent views the compilers have acted as referees and applied the category which appeared more appropriate in consultation with the assessors.

The use of the Lower Risk categories has also varied according to the opinion of different assessors. It is not always clear how much inference is appropriate to decide whether a species is Lower Risk or Vulnerable, particularly with regard to Criterion A. The category Lower Risk: conservation dependent should only be used for those species where a species-specific conservation measure ensures that the species does not qualify for Vulnerable, Endangered or Critically Endangered. Inclusion in a protected area is considered to be a sufficiently secure conservation measure to prevent a species being in a higher risk category by some assessors but there has not been uniformity of opinion on this issue.

Some assessors have probably followed the IUCN rules more rigidly than others. After careful consideration, the compilers decided not to apply a blanket standardisation of the categories and criteria across all tree species following the application by experts, although in some cases adjustments to particular species have been made through consultation. The compilers do not have the intrinsic knowledge of species in particular geographic regions and taxonomic groups which may have contributed to the expert evaluations. The listing of species should be seen as a fluid process, with scope for re-evaluations of species as more information becomes available, and as further debate on the categorisation process takes place.

Particular mention needs to be made concerning the dipterocarp trees of southeast Asia. Over 250 of these species have been listed in the most threatened category of Critically Endangered, using Criterion A. The basis for this assessment is the very rapid rates of forest loss in southeast Asia. Criterion A measures decline rates for long-lived species, such as trees, over a period of three generations. This amounts to at least 150 years for the dipterocarp species. Thus over 250 species of dipterocarp are believed to have lost over 80 percent of their forest habitat over the last three generations and are therefore listed as Critically Endangered. These listings might seem somewhat out of place alongside most other species listed as Critically Endangered, which tend to occur in tiny populations, sometimes of only a small number of individual trees. However, it is very important to be clear that extinction times scale with a species' generation time, and not with absolute time. All other things being the same, a long-lived species takes longer to go extinct than a short-lived species. If one considers a time window that is short relative to the lifetime of the species, one might miss the fact that it is in trouble, even if it is heading inexorably to extinction. To take a simple example, if one counts the numbers of a short-lived species with four generations per year and declining at 50 percent per generation, the population will have declined to 6.25 percent of the starting number after one year. Conversely, a species with a long generation time (say 100 years), but also declining at 50 percent per generation will exhibit almost no detectable decline as measured over a one-year period. The listing of the dipterocarps is therefore more logical and appropriate than appears at first sight.

Nevertheless, there is controversy concerning the use of Criterion A in this manner, and this is being studied as part of the SSC's ongoing review of the Red List Criteria. Three areas are currently being considered for possible revision of Criterion A: a) whether or not there should be a maximum time-limit set for estimates of generation-time, to make inference and projection more restricted in time for long-lived species and therefore more reliable; (b) the extent to which listing should incorporate information on whether or not the decline is controlled or managed, and therefore how likely it is to continue into the future; and (c) whether or not the current decline rates specified in the criteria are appropriate.
GAPS IN INFORMATION

The three year time period for preparation of *The World List of Threatened Trees* has allowed for rapid assembly and review of currently available information on the conservation status of trees. There are, however, clear information gaps. These result from lack of identified expertise on particular taxa or geographical areas or lack of time for information to be compiled where experts were contacted in the later stages of the data collection process. For some parts of the world and certain taxonomic families information is not yet available on which to base sound conservation assessments. The design of the data management system, the involvement of a wide network of experts and the further coordinated development of the SSC Plant Specialist Groups, with capacity to manage their own decentralised data, will allow continual updating of the global *Tree Conservation Database*.

**Taxonomic uncertainty**

In some cases it has been very difficult to apply categories because of taxonomic uncertainty. This is the case for example with the genus *Ardisia* in the family Myrsinaceae. In Panama, alone, about 110 species have been described mainly on the basis of original collections which often did not have flowers or fruiting material. There is a need for taxonomic revision taking into account the wealth of unverified herbarium specimens. The situation is similar for many other genera of trees.

**Areas which are poorly known**

Papua New Guinea provides an example of a biodiversity rich country which remains poorly explored. As outlined by Frodin (1997) a relatively intense phase of biological study took place within the country from 1946 through the 1980s. This generated various major publications on vegetation, biogeography and ecology but there has subsequently been a general decline in new research work and particularly in botanical exploration in Papua New Guinea (Conn, 1994). Frodin (1997) notes that at the present time, there is no critical and effective study of trees for Papua New Guinea and little prospect of one without substantial outside support. Given the low current exploration rate and the serious research and documentation backlog in general the conservation status of tree species is one of "data deficiency". Enough is known, however, about certain timber species to apply the IUCN categories and criteria and species summaries are included in the book for such species.

**Scientific reluctance**

In general there has been overwhelming support from the botanical community for the preparation of *The World List of Threatened Trees*. There have, however, been instances where botanists were reluctant to share unpublished information. This has resulted in some cases from a sense of frustration with the difficulty of securing resources for the publication of taxonomic work and equally with concerns about incorporating new species names which have not been previously validly published in the scientific literature. In other cases herbarium botanists did not feel they had sufficient field knowledge to make conservation evaluations.

**Time constraints**

Locating and compiling information on the conservation status of trees has proceeded rapidly in preparation of *The World List of Threatened Trees* but unfortunately it has not proved possible to develop or incorporate all the information located. More comprehensive evaluation of the conservation status of tree species for many countries would add significant numbers of species to the list of globally threatened tree species. Countries for which very little new information has been compiled include Cameroon, Dominican Republic, Fiji, Guatemala, Haiti, Korea, the Philippines and Thailand. In some cases this was because of lack of time to establish contacts within the countries.

Information on African tree species, compiled in the early stages of data collection, has been subject to a more extensive period of review. Less time was available to incorporate and review the more extensive tree data for other tropical regions. Examples of countries for which data has only been
The World List of Threatened Trees

partially processed for this publication include Bolivia, Costa Rica, Japan, Mexico, Peru and Viet Nam. To provide one specific example, the specimen database provided by ECOSUR provided a very rich source of data. This database contains data from 14000 herbarium specimens for Mexican tree species, with information on vegetation type, associated genera, and altitude. For each tree species recorded in the database the new IUCN category was added by experts at ECOSUR and, with approval from CONABIO, this data was provided to WCMC. Information has been added to the Tree Conservation Database for endemic trees of Mexico but there has been no time to seek information on the wider distribution and conservation status for non-endemic trees.

THE SPECIES SUMMARIES

The main body of this book is the compilation of conservation summaries for the 7388 tree species which have been evaluated as globally threatened. The summaries are arranged alphabetically by genus. In order to reduce the size of the species accounts, scientific authorities for species names and common names are not given although these are recorded in the Tree Conservation Database.

The threatened tree species included are those which have been evaluated as Critically Endangered, Endangered and Vulnerable. Species which have been evaluated as Lower Risk: near threatened and Lower Risk: conservation dependent are also included because, in most cases, the supporting information suggests that these trees are of equal conservation concern to species in the Vulnerable category. Furthermore summaries are also included for species evaluated as Data Deficient where it is apparent that the species are in a precarious situation even though some verification is needed of the taxonomic status or further field investigation is desirable. Frequently these species have been referred to as threatened elsewhere in the literature.

For each species the following information is given:

Botanical family name  The standard followed for family and generic names is Brummitt, 1992.

IUCN Red List category and criteria  These are reproduced in full with the explanatory notes in Appendix 4.

Distribution  The complete geographical distribution of species is recorded, as far as is known. Biological Recording Units are generally given, following Hollis and Brummitt, 1992. The only changes from this standard are for the Provinces of South Africa, Eritrea and the Democratic Republic of Congo (the former Zaire).

Conservation summary  This is based primarily on information provided by experts in the standard data collection forms (see Appendix 5), or from literature sources. In some cases the summary has been prepared by the expert who has evaluated the species and in other cases by the compilers at WCMC. Words which are preceded by an asterisk are further defined in the glossary.

Assessor  This is either the expert whom, or organisation or regional workshop which, has assigned the IUCN category and criteria.

References  The references relate either to botanical literature linked to the taxonomy, nomenclature and distribution of the species or to the source of conservation information including the conservation assessment.
SUMMARY OF RESULTS

Table 2. Summary of the number of tree species assessed according to the 1994 IUCN threat categories for inclusion in *The World List of Threatened Trees.*

<table>
<thead>
<tr>
<th>Globally threatened tree species</th>
<th>1994 IUCN Threat Category</th>
<th>Number of trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extinct</td>
<td></td>
<td>77</td>
</tr>
<tr>
<td>Extinct in the wild</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Critically Endangered</td>
<td></td>
<td>976</td>
</tr>
<tr>
<td>Endangered</td>
<td></td>
<td>1,319</td>
</tr>
<tr>
<td>Vulnerable</td>
<td></td>
<td>3,609</td>
</tr>
<tr>
<td>Lower Risk: near threatened</td>
<td></td>
<td>752</td>
</tr>
<tr>
<td>Lower Risk: conservation dependent</td>
<td></td>
<td>262</td>
</tr>
<tr>
<td>Data Deficient</td>
<td></td>
<td>375</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td><strong>7,388</strong></td>
</tr>
<tr>
<td>Lower Risk: least concern</td>
<td></td>
<td>1,971</td>
</tr>
<tr>
<td>Not evaluated</td>
<td></td>
<td>732</td>
</tr>
<tr>
<td><strong>Total number of species reviewed</strong></td>
<td></td>
<td><strong>10,091</strong></td>
</tr>
<tr>
<td>Globally threatened Australian tree species</td>
<td></td>
<td>141</td>
</tr>
<tr>
<td>Globally threatened Japanese tree species</td>
<td></td>
<td>202</td>
</tr>
<tr>
<td>Additional globally threatened species – old IUCN threat categories</td>
<td></td>
<td>1,022</td>
</tr>
<tr>
<td><strong>Total number of globally threatened tree species</strong></td>
<td></td>
<td><strong>8,753</strong></td>
</tr>
</tbody>
</table>

Note: Numbers of species given in the supplementary tree species lists in the Appendices are also included to give a global total.

The reasons for the decline and rarity for these tree species are varied. In addition to the threats mentioned in the species summaries, supplementary threats to each species are recorded in the *Tree Conservation Database.* In general, the threatened status of tree species results from processes of habitat modification and destruction. Specific threats may also result from direct exploitation of the species for timber or other products at rates which are unsustainable. The threats most commonly recorded in the *Tree Conservation Database* are summarised in Table 3.

Table 3. Most frequently recorded threats to globally threatened tree species

<table>
<thead>
<tr>
<th>Threat</th>
<th>CR</th>
<th>EN</th>
<th>VU</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felling</td>
<td>168</td>
<td>360</td>
<td>762</td>
<td>1290</td>
</tr>
<tr>
<td>Agriculture</td>
<td>127</td>
<td>232</td>
<td>560</td>
<td>919</td>
</tr>
<tr>
<td>Expansion of settlement</td>
<td>119</td>
<td>209</td>
<td>423</td>
<td>751</td>
</tr>
<tr>
<td>Grazing</td>
<td>97</td>
<td>122</td>
<td>198</td>
<td>417</td>
</tr>
<tr>
<td>Burning</td>
<td>50</td>
<td>77</td>
<td>158</td>
<td>285</td>
</tr>
<tr>
<td>Invasive plants</td>
<td>88</td>
<td>78</td>
<td>79</td>
<td>245</td>
</tr>
<tr>
<td>Forest management</td>
<td>12</td>
<td>61</td>
<td>141</td>
<td>220</td>
</tr>
<tr>
<td>Local use</td>
<td>13</td>
<td>55</td>
<td>105</td>
<td>173</td>
</tr>
<tr>
<td>Mining/exploration</td>
<td>19</td>
<td>31</td>
<td>101</td>
<td>151</td>
</tr>
<tr>
<td>Tourism/leisure</td>
<td>23</td>
<td>51</td>
<td>60</td>
<td>134</td>
</tr>
</tbody>
</table>

Threats have been recorded primarily as a basis for determining the required actions needed to reverse the decline of individual species. The threats to tree species are based on personal observations and assumptions and there will be a bias according to the geographical areas where most species
information has been collected. The relative importance of different threats implied by the above table should therefore be read with a degree of caution. It is interesting to note, however, the perceived impact of felling as a major threat to tree species. This threat includes both clear felling and selective felling. The fact that over 1000 tree species are considered to be globally threatened as a result of felling reinforces the need for timber harvesting regimes to be managed on a sustainable basis taking into account the impact on non-commercial species.

USES

Information on use and level of use of tree species is recorded in the *Tree Conservation Database*. The information collated on globally threatened tree species illustrates that 25 percent have at least one recorded use. The use data remains incomplete but nevertheless Table 4 indicates the utility value of the tree species which are threatened with extinction.

Table 4. The recorded uses of globally threatened tree species

<table>
<thead>
<tr>
<th>Use</th>
<th>CR</th>
<th>EN</th>
<th>VU</th>
<th>DD</th>
<th>LR nt</th>
<th>LR cd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>257</td>
<td>281</td>
<td>535</td>
<td>49</td>
<td>184</td>
<td>45</td>
</tr>
<tr>
<td>Fuel</td>
<td>17</td>
<td>46</td>
<td>141</td>
<td>8</td>
<td>34</td>
<td>8</td>
</tr>
<tr>
<td>Medicinal</td>
<td>17</td>
<td>33</td>
<td>91</td>
<td>12</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>Food</td>
<td>26</td>
<td>45</td>
<td>105</td>
<td>14</td>
<td>43</td>
<td>8</td>
</tr>
<tr>
<td>Oil, gum, resin</td>
<td>43</td>
<td>40</td>
<td>60</td>
<td>7</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

THE CONSERVATION OF TREE SPECIES

The assignment of conservation categories can be an important step in deciding priorities for conservation action. As has already been noted a particularly wide range of tree species fall within the Vulnerable category as a result of the decline of their forest ecosystems over the past 150 years and the longevity of individual trees within this time frame. Furthermore, the rate of exploitation of mature individuals of timber species over this period inclines the species to the Vulnerable category. It is suggested that in developing priority conservation actions for tree species based on the categories of threat, the development of sustainable use rather than protection mechanisms *per se* should be the focus for economically valuable species which are categorised as Vulnerable based on levels of exploitation.

Most of the species categorised as Vulnerable are those which have a restricted range and are found in habitats which are fragmented and declining (Criterion B); or have very small and restricted populations (Criterion D). For these species *in situ* protection is particularly important either within areas set aside for conservation or as protected stands within areas, for example, of agricultural or forestry land use. Clearly where the locations of restricted range and threatened tree species converge, these sites should be protected to conserve the maximum number of threatened trees. Tree species which are Critically Endangered or Endangered are those for which remedial conservation action should be a priority to prevent further decline towards extinction. Where more widespread species fall into these categories because of the rates of decline (Criterion A), however, as with the dipterocarp species, sustainable use initiatives may be equally appropriate. Information in the species summaries indicates those species for which immediate rescue attention is needed.

Measures to secure the conservation of tree species include research into the reasons for decline, protective legislation, *in situ* protection within designated conservation areas, management of populations in their natural habitats, ecological restoration measures, control of invasive species, and *ex situ* conservation in botanic gardens, arboreta and seed banks. Where *in situ* and *ex situ* conservation measures are already known to be in place for globally threatened tree species, this
information is recorded in the Tree Conservation Database. It is apparent, however, that the majority of globally threatened species are not subject to any specific conservation measures.

It is also apparent that many more tree species will be evaluated and recorded as globally threatened as more information becomes available. The preparation of botanical checklists is a very important step in the evaluation of conservation status. There is also a great need for more field data on the conservation status and distribution of tree species.

Major efforts are needed to prevent tree species extinctions. The primary focus for action needs to be at a national level through the actions of government agencies, NGOs and local resource managers. International conservation instruments should reinforce these efforts and provide a broader policy context for activities on the ground.

INTERNATIONAL POLICY IMPLICATIONS

International policy for the conservation and sustainable use of forest biodiversity has generally concentrated on ecosystem prioritisation and action. In order to prevent the loss of tree species diversity there is a need to shift the emphasis towards a complementary species-based approach. The World List of Threatened Trees and Tree Conservation Database provide the information resource to start doing so. The information now available can be used to refine implementation of policy through, for example, the selection of conservation sites based on tree species diversity and threat, the development of species indicators of ecosystem condition and the development of sustainable use initiatives for economically valuable components of forest biological diversity.

Convention on Biological Diversity (CBD)

The objectives of CBD are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. Biological diversity, as defined by this Convention, includes diversity within species, between species and of ecosystems. Forest biodiversity is recognised as a current priority.

Forests are the most biologically diverse terrestrial ecosystems. Although still rich in absolute and relative terms, the biological diversity of all types of forests has been diminished by the impacts of human societies. Those impacts are greater now than at any time in human history and they are still increasing. They are eroding contemporary forest biological diversity and challenging the processes which maintain it in forest communities and their constituent populations. (SBSTTA, 1997).

Parties to the Convention have agreed that the ecosystem approach to the conservation of forest biodiversity should be the primary framework of action to be taken under the Convention. Within this framework priority activities relating to tree species include:

i. assessment of methodologies which improve the long-term persistence of genetic variability within and between the populations of forest species.

ii. development of methodologies for reporting on the distribution of fragile species.

More broadly, Article 7 of the Convention calls for the identification by Parties of components of biodiversity important for conservation and sustainable use having regard to:

Species and communities which are: threatened; wild relatives of domesticated or cultivated species; of medicinal, agricultural or other economic value; or social, scientific or cultural importance; or importance for research into the conservation and sustainable use of biological diversity, such as indicator species.
Article 17 of the Convention calls for the facilitation of the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity, taking into account the special needs of developing countries.

Actions to be taken to conserve biological diversity, in accordance with the provisions of CBD, include the development of national strategies, plans or programmes for the conservation and sustainable use of biological diversity (Article 6); establishment of protected area systems where special measures need to be taken to conserve biodiversity (Article 8); adopt measures for the ex situ conservation of components of biodiversity, preferably in the country of origin (Article 9); promote and encourage public awareness and education on the importance and measures required for biodiversity conservation.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The main objective of CITES is to protect species of wild fauna and flora against overexploitation through international trade, by means of international cooperation. Species which are covered by the provisions of the Convention are included in appendices. To qualify for Appendix I, taxa must be "threatened by extinction" and "are or may be threatened by trade". Species included in Appendix II are those which "although not necessarily now threatened with extinction, may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilisation incompatible with their survival".

In 1994, the Parties adopted new criteria for amendment of Appendices I and II, and specified information requirements for amendment proposals (Wijnstekers, 1995). The CITES listing criteria were developed at the same time as the development of the 1994 IUCN Red List Categories and are loosely related to them.

The CITES appendices include around twenty tree species which are traded internationally as timber. They also include other tree species which yield medicinal products or which are in genera listed because of the threat from commercial horticultural collection, for example succulent Euphorbia spp. and Aloe spp. The provisions of the Convention and subsequent guidance on species listing do not generally distinguish between different species groups in their application. There has, however, been international debate about the suitability of the Convention as a tool to help conserve particular species groups. Increased interest in the use of CITES for timber species over recent years has contributed to this debate. Various amendment proposals have been submitted to CITES for timber species and have been considered by the Parties at the Eighth and Ninth Conferences, prior to the adoption of the 1994 amendment criteria.

The CITES Timber Working Group (TWG) was formed at the Ninth Conference of the Parties to review implementation issues relating to timber species, notably the control of parts and derivatives of listed species, and relationships with other international organisations dealing with the conservation and sustainable use of timber. The final report of TWG was endorsed by the Tenth Conference of the Parties in Harare, June 1997.

In its final report the TWG recommended that: many internationally traded timber species, boreal, temperate and tropical, can be managed on a sustainable basis through the application of appropriate silvicultural techniques, but that for other timber species such knowledge is currently lacking; and that there may be timber species which are under threat because of detrimental levels of use and international trade.

Consequently the TWG recommended that: The range states should pay particular attention to internationally traded timber species within their territories for which knowledge of biological status and silvicultural requirements indicates concern.
International Tropical Timber Agreement (ITTA)

The preamble of the ITTA, 1994 which came into force on 1 January 1997 notes the commitment of all members, made in Bali, Indonesia, in May 1990, to achieve exports of tropical timber products from sustainably managed sources by the year 2000. One of the objectives of the Agreement is: To encourage members to develop national policies aimed at sustainable utilization and conservation of timber producing forests and their genetic resources and at maintaining the ecological balance in the regions concerned, in the context of tropical timber trade.

With regard to cooperation and coordination with other organisations, Article 14 of the Agreement states that the Council (ITTC) shall make arrangements for consultation and cooperation with the United Nations and its organs, intergovernmental organizations including CITES and NGOs. The Organization (ITTO) shall, to the maximum extent possible, utilize the facilities, services and expertise of existing intergovernmental, governmental or non-governmental organizations, in order to avoid duplication of efforts in achieving the objectives of the Agreement.

THE NEXT STEPS

Political

At an international level, mechanisms for promoting the conservation of individual tree species and areas of maximum tree species richness and diversity within forest ecosystems, need to be developed. The CBD is currently the most appropriate policy instrument given the commitment of parties to the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. Furthermore CITES can be used to ensure that commercially valuable globally threatened trees are traded internationally at sustainable levels and ITTA can be used to ensure that sustainable forest management and trade in forest products promotes the conservation of tree species.

The emphasis on implementation of CBD, CITES species selection and ITTA policy development and projects is at a national level with international exchange of information, financial support and technical expertise where appropriate. Subsets of information from the Tree Conservation Database will be made available as tools for the development of national threatened tree lists on which to base national policy and action. Convergence of national and international systems for collection of information and categorisation of threat needs to be considered further identifying, for example, which data elements are common requirements and guidelines for rapid collection of such data. There is a need for flexibility and incremental development of conservation information systems based on available knowledge.

Scientific

The sharing of information between scientific and conservation institutions is important to build on the results of the tree species conservation assessments and fill in current gaps on tree species information as new scientific data becomes available. Baseline field survey is urgently required for many areas and the collection of additional distribution data for species known or suspected to be of concern. The spatial accuracy of current data can be significantly improved, and the application of the IUCN threat categories reinforced, by the use of GIS linking herbarium, species inventory and forest cover data. Enhanced use of distribution data will be particularly valuable in planning in situ conservation measures for trees.

Research is urgently needed on the population biology and autecology of globally threatened tree species. For practical application, research and information exchange are also needed on aspects of sustainability relating to tree species utilisation, particularly for those species categorised as Vulnerable. Silvicultural research and exchange of information on silvicultural techniques should
be components of this. The links between forest certification initiatives and the sustainability of tree species should also be considered further.

Networking

Collaboration with international, regional and national agencies is essential in collecting information on the conservation status of trees. The preparation of The World List of Threatened Trees has fostered good links with international and national organisations, IUCN/SSC Specialist Groups and individual experts. Further collaboration with IPGRI and FAO in relation to information systems for tree species and their genetic resources (in turn linking with ICRAF and CIFOR) will be very valuable. National herbaria are an essential source of primary information on the conservation of tree biodiversity. Networking of information and expertise needs to be maintained and developed.

Education and awareness raising

A strong message to emerge from the preparation of The World List of Threatened Trees is that tree species are threatened with extinction throughout the world. Numerically more species are threatened in tropical regions reflecting the greater tree species richness in these regions. Nevertheless, the potential for tree species loss is a universal problem and needs to be tackled in all countries and at all levels. Information products are needed to convey the information in this book to a wide audience including the managers of natural resources in rural communities. Local people may not always appreciate that a species they harvest has a narrow geographic distribution and is wholly dependent on local wise use for its conservation.

Conservation action

Above all The World List of Threatened Trees should be used to develop conservation action on the ground. Urgent attention is needed to reverse the progression towards extinction for Critically Endangered and Endangered tree species. Attention is also needed to prevent Vulnerable species moving into the higher categories of threat. In some instances ex situ measures may provide important back up. In situ mechanisms are generally the most appropriate way to conserve tree species either within designated conservation areas or through sustainable use initiatives in the wider environment.

The threats to tree species are increasing and conservation actions must consequently be intensified. As Dallmeier, 1998, points out,

The loss of even one species diminishes the earth's store of biological diversity, for once eliminated, a species cannot be recovered or regenerated. All possibilities the species had for bettering life are gone, including its potential to provide the basis of life-saving medicines or new or improved foodstuffs to feed a burgeoning human population. Species losses are also felt at the genetic, community and landscape levels. When a species is gone so is its genetic heritage.
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Abarema abbottii
Leguminosae  VU B1+2c
Dominican Republic
A tree restricted to broadleaved woodland on limestone soils in north-east Dominican Republic.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema alexandri var. alexandri
Leguminosae  LR/nt
Jamaica
One of two varieties of this Jamaican endemic, occurring in remaining areas of woodland or thicket on limestone soils.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema alexandri var. troyana
Leguminosae  LR/nt
Jamaica
One of two varieties of this Jamaican endemic, occurring in remaining areas of woodland and thickets on limestone soils.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema bigemina
Leguminosae  VU A1c
Sri Lanka
A species confined to the lowland wet evergreen forests of south-west Sri Lanka. This tree was found in 33 forest localities in the recent National Conservation Review, including Sinharaja Biosphere Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 19112

Abarema callejasii
Leguminosae  VU D2
Colombia
A small tree of montane rainforest only known from the east slope of the Cordillera Central in Antioquia.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema centiflora
Leguminosae  VU B1+2c
Bolivia
A small tree known only from humid montane forest on the east slope of the Bolivian Andes.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema cochleata var. moniliformis
Leguminosae  VU B1+2c
Brazil (Amazonas)
This variety is extremely local in *terra firme* forest in Manaus.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema cohliacarpus
Leguminosae  VU B1+2c
Brazil (Bahia, Espirito Santo, Paraíba)
A tree or arborescent shrub of the Atlantic coastal forest, disjunctly distributed from Paraíba to Bahia. In Bahia, this species is also found inland on disturbed *mata do cipo, *cerrado* or *campo rupestre*, sometimes reaching an altitude of 1100m.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema curvicarpa var. rodriguesii
Leguminosae  VU B1+2c, D2
Brazil (Amazonas)
This forest tree is only known from the Reserva Ducke near Manaus, central Amazonian Brazil.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema filamentosa
Leguminosae  VU B1+2c
Brazil (Bahia, Espirito Santo)
A formerly common tree found in lowland wet Atlantic forest and *restinga* along the coast of Bahia and Espirito Santo.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema ganymedea
Leguminosae  VU D2
Colombia, Ecuador
A lowland wet forest species, known only from two disjunct collections, one gathered from North Antioquia, Colombia, the other from Esmeraldas, Ecuador.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema josephi
Leguminosae  VU D2
Colombia
A small tree known only from the type locality. It was found in montane woodland near the west boundary of Comisaría del Caquetá.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema killiptii
Leguminosae  VU D2
Colombia, Ecuador
A small tree known from a single collection from Caldas, Colombia, and from two localities on the eastern slope of the Ecuadorian Andes. It occurs in submontane and montane forest, meadows and open hillsides. Trees sometimes survive forest clearing.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema lehmannii
Leguminosae  VU D2
Colombia
A tree restricted to the margin of humid montane forest in the Cordillera Central in Antioquia.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema leucophylla var. vaupesensis
Leguminosae  VU D2
Colombia
A small tree or shrub restricted to an area along Río Vaupés and Apaporis in Vaupés.
Assessor: World Conservation Monitoring Centre
Refs: 5994
Abarema longipedunculata
Leguminosae
Venezuela
Endemic to Bolívar in the Venezuelan Guayana, this tree or shrub grows on rocky summits, cliff ledges and in gullies in the sandstone table mountains.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema obovata
Leguminosae
Brazil (Minas Gerais)
A tree confined to wooded hillsides in east and north-central Minas Gerais.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema oxyphyllidia
Leguminosae
Honduras
Known only from a single collection dating from 1964, this tree occurs in mixed montane forest in the Cordillera Guayjiquio, south-west Honduras.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema racemiflora
Leguminosae
Costa Rica
This tree is known only from wooded hills near Turrialba in Cartago and Villa Quesada in Alajuela.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema turbinata
Leguminosae
Brazil (Bahia)
A species restricted to the remnants of Atlantic coastal forest and *restinga along the coast of Bahia between 14° and 16°S.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abarema villifera
Leguminosae
Brazil (Amazonas), Venezuela
A tree localised to periodically inundated riparian forest in the upper tributaries of the Río Negro in Venezuela. An unconfirmed variant of the species is also found growing in *terra firme forest in the lower Río Negro basin in Brazil.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Abdulmajidia chaniana
Lecythidaceae
Malaysia (Peninsular Malaysia)
A small tree found in the lowlands and hill forests of Pahang and Johore, up to 570m. Increasing settlement is the principal pressure exerted on this already rare species.
Assessor: Chua, L.S.L.
Refs: 19073

Abdulmajidia maxwelliana
Lecythidaceae
Malaysia (Peninsular Malaysia)
A small tree occurring on steep ridges and hillsides in submontane forest, at approximately 600m. The species is confined to Maxwell Hill in the state of Perak. The main threats to the tree come from expanding settlements and tourism.
Assessor: Chua, L.S.L.
Refs: 3630, 11725, 11847

Abies beschanzuensis
Pinaceae
China (Zhejiang)
Only five living specimens are known in the wild. The species occurs in mixed forest on Baishanzu Mountain. Expansive agriculture and fires, coupled with poor regeneration, are thought to have largely been responsible for the decline of the species.
Assessor: SSC Conifer Specialist Group
Refs: 3650, 13041, 19193

Abies bracteata
Pinaceae
USA (California)
Confined to mountain ridges, the species is now known to be more widespread in the Santa Lucia Mountains than originally thought. Fire is a threat but the area is generally inaccessible to grazing animals.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041, 19193

Abies cephalonica
Pinaceae
Greece (East Aegean Is)
The species is known to occur on Cephalonia, Euboea and Peloponnnesos.
Assessor: SSC Conifer Specialist Group
Refs: 13041

Abies chengii
Pinaceae
China (Yunnan?)
The populations in the wild remain unknown. The species was described from a specimen in cultivation at Hilliers, UK. Repeated attempts to discover the whereabouts of the wild population have failed.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Abies chensiensis
Pinaceae
China (Gansu, Henan, Hubei, Shaanxi, Sichuan?)
The distribution of the subspecies is fairly wide and unresolved. Populations are scattered and confined to areas of dense montane forest. Levels of exploitation of the forest habitat have been high throughout the area. Regeneration does not appear to be good.
Assessor: SSC Conifer Specialist Group
Refs: 374, 1818, 18751

Abies chensiensis ssp. yulongxueshanensis
Pinaceae
China (Yunnan)
A relatively recently published name. The taxonomy remains questionable. The population is restricted to a small area of forest. Its status is not presently known but Lijiangshan is one of the best preserved areas.
Assessor: SSC Conifer Specialist Group
Refs: 374, 7610, 13041
Abies cilicica ssp. isaurica
Pinaceae
Turkey
The species appears to be endemic to Isaurian Taurus.
Assessor: SSC Conifer Specialist Group
Refs: 4863, 11888, 13041

Abies durangensis var. coahuilensis
Pinaceae
Mexico (Coahuila)
Occurring in a sparsely populated area, there are no obvious threats to the two or three subpopulations that exist. These are restricted to wet north slopes in two river valleys.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Abies fanjingshanensis
Pinaceae
China (Guizhou)
A relict species occurring only in inaccessible areas on Fanjing Mountain. It grows on northern slopes at an elevation of 2100–2300m, forming pure or mixed stands. The populations are not obviously threatened but there are unlikely to be more than 250 mature trees.
Assessor: SSC Conifer Specialist Group
Refs: 374, 11847

Abies forrestii var. georgii
Pinaceae
China (Sichuan, Xizang, Yunnan)
Chinese taxonomists refer to this taxon as a species. Extensive forests of it were known to occur above 3000m in south-west Sichuan and north-west Yunnan. Large-scale deforestation and replanting with commercial species have since taken place in the area and populations have declined.
Assessor: SSC Conifer Specialist Group
Refs: 374, 11191, 13041

Abies fraseri
Pinaceae
USA (North Carolina, Tennessee, Virginia)
Populations are known from six peaks, including the Smoky Mountains National Park. They are small, windswept and unhealthy. Regeneration appears to be poor.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Abies guatemalensis var. guatemalensis
Pinaceae
El Salvador, Guatemala, Honduras, Mexico
The Guatemalan Fir is the southernmost member of its genus. It was reported to be common until the 1940s and large populations may still remain in Honduras. There has been heavy timber exploitation throughout the range. There is disputable evidence that the remaining stands in Guatemala extend no more than 3ha. Isolated stands continue to be exploited heavily by local inhabitants and the deep fertile soils, on which the tree grows, are attractive to agricultural development. Cone crops are irregular and germination is poor. Programmes to improve its status are being run by CAMCORE. Felling is prohibited in some countries and the species is listed in *CITES Appendix I.
Assessor: SSC Conifer Specialist Group
Refs: 374, 3951, 13041

Abies guatemalensis var. jaliscana
Pinaceae
Mexico (Jalisco)
The taxonomy of the variety is based on fallen cone material. It is common but found at lower altitudes, which may leave it more vulnerable to exploitation. The species is listed in *CITES Appendix I.
Assessor: SSC Conifer Specialist Group
Refs: 374, 3951, 5287, 13041

Abies guatemalensis var. tacomensis
Pinaceae
Mexico (Chiapas)
The species is restricted to forest areas up to 3000m or more. The taxonomy of the variety may be questionable. The species is listed in *CITES Appendix I.
Assessor: SSC Conifer Specialist Group
Refs: 6541, 10722, 13041, 19161

Abies hickelii var. hickelii
Pinaceae
Mexico (Guerrero, Oaxaca)
A variety which is found in very low densities and continues to suffer from extensive logging and habitat loss.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6541, 13041

Abies hickelii var. oaxacana
Pinaceae
Mexico (Guerrero, Oaxaca)
A variety which occurs in very low densities and continues to suffer from extensive logging and habitat loss.
Assessor: SSC Conifer Specialist Group
Refs: 374, 10722, 11191, 13041

Abies Kawakamii
Pinaceae
Taiwan
The species is widespread but appears to suffer from frequent fire damage.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6409

Abies koreana
Pinaceae
Russia, South Korea
The species is recorded from Cheju Island, Chiri-san, Halla-san and Tokyu-san in South Korea and from the Sikhote Alin range in Russia.
Assessor: SSC Conifer Specialist Group
Refs: 11117, 13041

Abies nebrodensis
Pinaceae
Italy (Sicily)
Endemic to Sicily, the species is known from a small population containing less than 20 individuals. Only a fraction of them appear to be reproductively capable. A propagation programme is under way.
Assessor: SSC Conifer Specialist Group
Refs: 374, 4506, 7222, 19021

Abies nordmanniana ssp. equi-trojani
Pinaceae
Turkey
This taxon presently includes ssp. bornmuelleriana, which stands as a separate taxon in Turkey. Populations...
are restricted to the northern mountain slopes in Kaz–Dagh and Ulu-Dagh. The stands appear to be reasonably extensive and healthy. 

**Abies numidica**

Pinaceae  
Algeria

This species is restricted to Mount Babor and Tababor, and is highly scattered where it occurs. Recent collecting expeditions in the area uncovered only one plant.

**Abies pinsapo var. marocana**

Pinaceae  
Morocco

Although this variety is less threatened than the Spanish variety, it is restricted to the Rif Mountains and is vulnerable to overgrazing.

**Abies pinsapo var. pinsapo**

Pinaceae  
Spain

Three healthy populations are known. One in Grazelema National Park consists of a few thousand trees. Overgrazing by goats, droughts and the threat of fire affect the survival of all three populations.

**Abies pinsapo var. tazaotana**

Pinaceae  
Morocco

This variety is locally common, perhaps numbering 2500 individuals, but restricted to between 1600 and 2000m on Mount Tazaot.

**Abies recurvata var. recurvata**

Pinaceae  
China (Sichuan)

A rare variety with a very restricted range confined to Songpan. Var. ernestii appears to be more widespread in the west of Sichuan Province.

**Abies sibirica ssp. semenovii**

Pinaceae  
China, Kyrgyzstan

The known populations are confined to Talasskij Ala Tau but they are suspected to extend into China. The species as a whole is considered threatened in China.

**Abies squamata**

Pinaceae  
China (Gansu?, Qinghai, Sichuan, Xizang)

A species confined to forest in an area which is experiencing high levels of deforestation and habitat degradation.

**Abies veitchii var. sikokiana**

Pinaceae  
Japan

This variant is known from Shikoku Island. There are no obvious threats at present.

**Abies vejarii ssp. mexicana**

Pinaceae  
Mexico (Coahuila, Nuevo León)

The taxonomy of this subspecies is questionable. It occurs in the Sierra Santa Catarina, in a single locality that probably extends less than 100km².

**Abies yuanbaoshanensis**

Pinaceae  
China (Guangxi)

A relatively recently discovered species confined to Yuanbao Mountain., which is outside the general range of fir species. There are in the region of 100 individuals mostly over 100 years old. Young trees are very rare and regeneration is hampered by long coning intervals, seed predation by squirrels and competition with Sinarundinaria species. Effective protection of the population is given by the Forest Department.

**Abies ziyuanensis**

Pinaceae  
China (Guangxi, Hunan)

An endemic of the Nanling range, where the species occurs in middle elevation mixed forest on Mount Yinzhulao, Mount Shanhuang and Mount Erbaoding. As with A. yuanbaoshanensis, the distribution lies outside the general range of fir species. Population density is low and regeneration is poor because of the long coning interval and competition with other plants.

**Abutilon sachetianum**

Malvaceae  
French Polynesia (Marquesas Is.)

Only recorded from the Marquesas, the species is found in small populations on the islands of Eiao, Hatutaa, Hiva Oa, Mohotani and Nuku Hiva. Those on Eiao and Hatutaa are in a notably critical state. The species has been propagated at the Museum of Natural History in Washington, D.C. in the USA.

**Assessor:** Florence, J.  
**Refs:** 14513
Acacia albicorticata  
Leguminosae  
VU B1+2c  
Argentina, Bolivia  
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.  
Assessor: Prado, D.  
Refs: 19122

Acacia ankobib  
Leguminosae  
LR/nt  
Somalia  
A species of restricted range, only known from semi-desert bushland, usually in rocky places on limestone in north-eastern Somalia. The habitat is vulnerable to degradation. The tree is an important local source of gum.  
Assessor: Thulin, M.  
Refs: 7550, 18665

Acacia aulacocarpa  
Leguminosae  
LR/nt  
Australia, Indonesia (Irian Jaya), Papua New Guinea  
In New Guinea, this tree of savanna and monsoon forest up to an altitude of 50m is restricted to Digul District in Irian Jaya and the Oriomo River area in the Western Province of Papua New Guinea. Part of the range is subject to logging. Continued exploitation and habitat destruction have reduced the number of mature individuals and, if not halted, will render the species as a whole vulnerable. More information is needed on populations in eastern and northern Australia.  
Assessor: Eddowes, P.J.  
Refs: 19114

Acacia belairioides  
Leguminosae  
CR B1+2c  
Cuba  
A very rare tree up to 7m tall, confined to the serpentine outcrop of Holguin in north-eastern Cuba. The habitat is severely degraded in most places, mainly due to grazing and urbanisation.  
Assessor: Areces-Mallea, A.E.  
Refs: 9522, 11637, 19149

Acacia bucheri  
Leguminosae  
EN B1+2c  
Cuba  
An uncommon tree up to 8m in height occurring in woodlands and dry forests over limestone and serpentine bedrocks in the provinces of Guantánamo, Baracoa and Holguin.  
Assessor: Areces-Mallea, A.E.  
Refs: 9522, 11403, 19149

Acacia campbellii  
Leguminosae  
VU A1cd  
India (Andhra Pradesh)  
A small tree distributed throughout much of Andhra Pradesh in deciduous forest or thorny scrub, often on black cotton soils. It has been heavily collected as a fuelwood and its habitat has also declined in extent.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799

Acacia caraniana  
Leguminosae  
LR/nt  
Somalia  
A Somali endemic known only from areas of sparse vegetation on gypsum hills in the north-east. The habitat is vulnerable to degradation.  
Assessor: Thulin, M.  
Refs: 7550, 18665

Acacia cernua  
Leguminosae  
LR/nt  
Somalia  
A species which is endemic to northern Somalia in a habitat which is vulnerable to degradation.  
Assessor: Thulin, M.  
Refs: 18665

Acacia conyloclada  
Leguminosae  
LR/nt  
Ethiopia, Kenya, Somalia  
Restricted to limestone outcrops, this tree, characterised by its peeling bark, is known from two collections west of Ramu in Kenya, from parts of the Ogaden in Ethiopia and from northern Somalia.  
Assessor: Thulin, M.  
Refs: 1330, 6396, 10961, 12067

Acacia crassicarpa  
Leguminosae  
VU A1cd+2cd, B1+2abcd  
Australia (Queensland), Papua New Guinea  
A tree of savanna woodland, monsoon forest and gallery-type forest at altitudes of between 10 and 30m restricted to the Western Province, Papua New Guinea, and to Queensland, Australia. Logging is occurring and the timber is actively sought-after.  
Assessor: Eddowes, P.J.  
Refs: 19114

Acacia daemon  
Leguminosae  
EN B1+2c  
Cuba  
A fairly uncommon tree, up to 5m tall, confined to the rocky serpentine hillsides of Habana, Matanzas, Villaclara and Camagüey Provinces. These areas are under constant pressure from cutting and clearing.  
Assessor: Areces-Mallea, A.E.  
Refs: 9522, 11403, 19149

Acacia densispina  
Leguminosae  
VU B1+2c  
Somalia  
Known only from central Somalia, this small tree is restricted to Acacia-Commiphora bushland in limestone areas. Large-scale charcoal production is causing the loss and degradation of the habitat.  
Assessor: Thulin, M.  
Refs: 8697, 18665

Acacia dolichostachya  
Leguminosae  
LR/nt  
Guatemala, Mexico (Campeche, Quintana Roo, Yucatán)  
Endemic to the Yucatán Peninsula, this rainforest tree is an important component of the canopy. The habitat is generally disturbed and declining in extent.  
Assessor: World Conservation Monitoring Centre  
Refs: 5993, 19124, 19162
Acacia etilis
Leguminosae
VU B1+2c
Argentina, Bolivia
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122

Acacia ferruginea
Leguminosae
VU A1c
Sri Lanka
This tree was commonly found in the dry zone of Sri Lanka but it is now very rare. The wood is used for its medicinal properties.
Assessor: World Conservation Monitoring Centre
Refs: 18796, 19110

Acacia flagellaris
Leguminosae
VU B1+2c
Somalia
A tree of exposed limestone ridges in low vegetation, known only from north-eastern Somalia. It occurs in an area less than 20,000km² and its habitat continues to be degraded and destroyed by overgrazing and overcutting.
Assessor: Thulin, M.
Refs: 8697, 18665

Acacia gaumeri
Leguminosae
LR/nt
Mexico (Campeche, Quintana Roo, Yucatán)
A weedy tree, abundant in but confined to semi-evergreen forest and secondary formations in the Yucatán Peninsula.
Assessor: World Conservation Monitoring Centre
Refs: 19162

Acacia koa
Leguminosae
VU A1ce
USA (Hawaii)
A taxon which is included in the wider concept of A. koa. This is a small and gnarled form found in small numbers in dry and open habitats on Molokai, Lanai, Maui and Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Acacia manubensis
Leguminosae
VU B1+2c
Somalia
Confined to semi-evergreen bushland on limestone in the Al Miskat Mountains, this tree has the same common name and valuable gum as A. ankokib but it is ecologically distinct, occurring at higher altitudes.
Assessor: Thulin, M.
Refs: 7550, 8697, 18665

Acacia mathuataensis
Leguminosae
CR D1
Fiji
Only known from the type collection of 1947, the species was found in dense thickets on the summit ridge of Mount Numbula, east of Lambasa, Vanua Levu.
Assessor: World Conservation Monitoring Centre
Refs: 18818

Acacia mogii
Leguminosae
LR/nt
Somalia
A shrubby spreading tree known only from Acacia-Coniphora bushland on limestone, south of Beled Weyne. This habitat is vulnerable to degradation.
Assessor: Thulin, M.
Refs: 18665

Acacia montis-usii
Leguminosae
LR/nt
Namibia
A graceful tree, often branching from the base. It occurs on granite outcrops, ridges and inselbergs from the Brandberg to southern Kaokoveld. Trees in the Twyelfontein area are infested with insects, which may have some effect on recruitment and population size and structure. Many mature trees died during the severe drought in the 1980s. However, healthy levels of recruitment are observed in some subpopulations.
Refs: 689, 7550, 19218

Acacia ochracea
Leguminosae
LR/nt
Somalia
Numerous trees were recorded in 1990 in the southwest, where the species is endemic. It occurs in Acacia-Coniphora bushland, usually in shallow soil over limestone. Habitat destruction because of charcoal production and overgrazing is a continuing threat.
Assessor: Thulin, M.
Refs: 18665

Acacia origena
Leguminosae
LR/nt
Eritrea, Ethiopia, Yemen (Former North Yemen, Former South Yemen)
A species from the Welo and Hararge highlands of Ethiopia, west Eritrea and also across the Red Sea in Yemen. It occurs in upland wooded grasslands above 1700m.
Assessor: World Conservation Monitoring Centre
Refs: 1330

Acacia pachyceras var. najdensis
Leguminosae
LR/nt
Egypt, Iraq, Israel, Jordan, Kuwait, Oman, Saudi Arabia
An important component of and often the sole tree species in desert wadis and hilly areas, extending from Egypt through Arabia into southern Iraq. The tree is very vulnerable to overcutting and overgrazing and appears to have become extinct in Kuwait. In the Negev Desert in Israel mortality rates have been observed to be as high as 60%, largely because road building has cut off vital river beds. In other areas, such as the northern mountains of Oman, populations are well established and not threatened.
Assessor: World Conservation Monitoring Centre
Refs: 1517, 2863, 5100, 6988

Acacia pennvenia
Leguminosae
VU D2
Yemen (Socotra)
A tree of submontane dry woodland. The population is stable and there are no immediate threats.
Assessor: Miller, A.G.
Refs: 2354, 7550, 19083
Acacia prasinata
Leguminosae
VU B1+2c
Ethiopia
A species known only from areas of dry woodland or semi-desert bushland in Afar and Shewa in Ethiopia. Its habitat is vulnerable to overgrazing and cutting for fuelwood.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 18523

Acacia pseudogigas
Leguminosae
VU D2
Ethiopia
A species with a very restricted range known only from a limestone area of succulent shrubland on the track to Kelafo in the Ogaden. The area, although susceptible to degradation, is relatively unthreatened.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 5654, 7550, 18523

Acacia purpurea
Leguminosae
VU D2
Mozambique
A poorly known species, collected from waterside localities on the plains on the southern side of the Zambezi.
Assessor: World Conservation Monitoring Centre
Refs: 7401, 7550

Acacia robynsiana
Leguminosae
LR/nt
Namibia
A bushy tree, frequently with upright or drooping whip-like branches, occurring on granite outcrops, ridges and inselbergs in Outjo and Kaokoveld Districts. General habitat degradation through poor land management, coupled with recent droughts may have affected population size and recruitment. The species is not protected within any designated protected areas, although it is given some protection on land registered as conservancies or as hunting concessions. Its range extends up to the Angola border but, so far, it has not been recorded from Angola itself.
Refs: 689, 7401, 7550, 19218

Acacia roigii
Leguminosae
CR B1+2c
Cuba
Very restricted in range, this endemic tree, up to 8m tall, is restricted to the dry evergreen forests of Puerto Padre in north-eastern Cuba. The habitat is severely degraded in many places because of cutting, grazing and settlement.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Acacia sarcophylla
Leguminosae
LR/nt
Somalia, Yemen (Socotra)
A species found in northern Somalia and also on the island of Socotra. Habitat degradation largely from overcutting and charcoal production is a threat.
Assessor: Thulin, M.
Refs: 7550, 18665, 19083

Acacia schlechteri
Leguminosae
DD
Mozambique
A species which is taxonomically unconfirmed and poorly known. It may represent A. burkei.
Assessor: Bandeira, S.
Refs: 5117, 7550

Acacia venosa
Leguminosae
VU A1c+2c
Eritrea, Ethiopia
A woodland species confined to parts of west Eritrea, Tigray and Gondar on the high plateau where the majority of the Ethiopian population lives. The northern forests have diminished most noticeably because of the expansion of farmed land and human habitation and overcutting for fuelwood.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 18523

Acacia villosa
Leguminosae
VU B1+2c
Jamaica
Found only in St Andrew and St Thomas Parishes, the species is locally common in thickets on gravel.
Assessor: Bellingham, P.
Refs: 6057, 7980, 19116

Acacia zapapensis
Leguminosae
EN B1+2c
Cuba
An endemic shrub, sometimes a small tree, confined to the Peninsula de Zapata, Matanzas Province in eastern Cuba. Development for tourism is currently the major threat to the species.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Acalypha hontauyuensis
Euphorbiaceae
VU D2
Taiwan
An ornamental shrub confined to Lanyu Island, where it is locally abundant in areas of dry scrub. None of the populations are protected and, in places, they are susceptible to increasing settlement and cultivation of the land.
Assessor: Pan, F.J.
Refs: 3295, 7933, 19050

Acalypha lepinei
Euphorbiaceae
VU B1+2c
French Polynesia (Society Is.)
Populations are recorded from Bora Bora, Raiatea and Tahiti, where the species is most seriously threatened.
Assessor: Florence, J.
Refs: 14513

Acalypha raivavensis
Euphorbiaceae
CR B1+2c
French Polynesia (Tubuai Is.)
A shrub or shrubby tree recorded from Raivavae and Tubuai.
Assessor: Florence, J.
Refs: 14513
Acalypha rubrinervis  
Euphorbiaceae  
EX  
St Helena  
Formerly a rare shrub or small tree of thickets on the central ridge above 600m. It became extinct in 1870.  
Assessor: Cronk, Q.C.B.  
Refs: 19081

Acalypha suirenbensiis  
Euphorbiaceae  
VU D2  
Taiwan  
Only known from the Taitung coast, this shrubby species occurs abundantly in dry scrub in a single small location. There are no conservation or protection measures in place and habitat clearance for agriculture or housing threatens much of the area.  
Assessor: Pan, F.J.  
Refs: 3295, 6469, 19050

Acanthopanax malayanus  
Araliaceae  
LR/cd  
Malaysia (Peninsular Malaysia)  
A small tree inhabiting montane rainforest in Pahang (Cameron Highlands) and Kelantan (Gunung Stong). The species is given a degree of protection, where it occurs within the permanent forest estate.  
Assessor: Chua, L.S.L.  
Refs: 8464, 19073

Acanthophoenix rubra  
Palmae  
CR B1+2c  
Mauritius, Réunion  
A palm tree of mixed moist forest, occurring between 250 and 650m in Réunion and south-west Mauritius. On the latter island only a single population of 150 mature individuals in Étoile valley in the eastern range remains viable. Regeneration is occasional and seed production is monitored. This species is widely cultivated in gardens in Mauritius.  
Assessor: Page, W.  
Refs: 19118

Acanthosyris asipapote  
Santalaceae  
VU D2  
Bolivia  
A recently described species, known only from very few sites in Santa Cruz. It appears to be a relict species, occurring in the outskirts of a rapidly growing city.  
Assessor: World Conservation Monitoring Centre  
Refs: 19180

Aceca lanuginosa  
Myrtaceae  
VU B1+2c, D2  
Peru  
A shrub or small tree known from only a few, possibly only three, localities of low forest up to 2700m on the eastern slopes of the Peruvian Andes.  
Assessor: World Conservation Monitoring Centre  
Refs: 5435, 7980

Acer buergerianum ssp. formosanum  
Aceraceae  
CR C2a, D1  
Taiwan  
Only two populations are known, confined to small areas of lowland evergreen forest in Wanli and Yingshihchien in the north of Taiwan. The species is mainly threatened by the uprooting of whole plants for ornamental use.  
Assessor: Lu, S.Y. & F.J. Pan  
Refs: 3295, 6469, 8507, 19050, 19051

Acer caesium ssp. caesium  
Aceraceae  
DD  
China, India (Himachal Pradesh, Jammu-Kashmir, Uttar Pradesh), Nepal, Pakistan  
A large tree, relatively poorly known but distributed over a relatively large area from Pakistan to Western China. It was once common in the Western Himalayas, usually found in open grassy places and in moist patches of broadleaved forest. Overexploitation of the timber for commercial and local use has caused a decline in population numbers. Seeds and plants are also present in the ornamental trade.  
Assessor: World Conservation Monitoring Centre  
Refs: 2538, 5995, 8507

Acer duplicatoserratum  
Aceraceae  
VU B1+2ab  
Taiwan  
Populations are scattered in central to northern parts of Taiwan in submontane broadleaved forest. Declines in numbers have been caused by the illegal digging up of whole trees for the trade in ornamental plants. No conservation or protection measures are in place in any part of the species’ range. A variety of the species occurs in Anhui, China.  
Assessor: Pan, F.J.  
Refs: 8507, 19050

Acer erythranthum  
Aceraceae  
LR/nt  
Viet Nam  
A large tree occurring in Thua Thien-Hue, Gia Lai, Kon Tum and Lam Dong Provinces, usually in evergreen forests above 500 m on deep fertile soils. Natural regeneration does not appear to be good, despite good fruit crops. The fine timber is used for construction and making household appliances.  
Assessor: World Conservation Monitoring Centre  
Refs: 11530, 15357

Acer longipes ssp. catalpifolium  
Aceraceae  
VU A1cd  
China (Guangdong, Sichuan)  
This subspecies is recognised as a species in China. It is recorded infrequently in the Chengdu Plain in Sichuan and also in Guangdong. Apparently valuable as a timber, the species is threatened with overcutting and loss of habitat.  
Assessor: World Conservation Monitoring Centre  
Refs: 8507, 11847

Acer miyabei ssp. miaotaiense  
Aceraceae  
VU B1+2ce  
China (Gansu, Shaanxi, Zhejiang)  
A forest tree known from two main populations which occur disjunctly and were previously known under two different species names, A. miaotaiense and A. yangjuechi. The former is confined to the Qinling and Bashan Mountains occurring singly or in small groves showing poor regeneration and under some threat from forest clearance. The second population contains two individuals on Xitianmu Mountain to the east in
Zhejiang. Although the seeds appear to be frequently sterile, the population is given protection from felling or damage.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1818, 8507, 11847

**Acer negundo ssp. mexicanum**  
Aceraceae  
GUatemala, Mexico (Chiapas, Jalisco, Oaxaca, Tamaulipas, Veracruz)

A dioecious species, which grows along watercourses and streams in mountain areas, between 1500 and 2400m. It is observed to be relatively abundant in Veracruz but in Jalisco it occurs only in state forest outside Tapalpa. Throughout the range it is suffering from habitat loss.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 8507, 15436, 16907, 19068, 19161

**Acer oblongum var. membranaceum**  
Aceraceae  
India (Uttar Pradesh)

One of the several varieties of a widespread species. It has been collected only a few times, from a single locality on the upper ridges of the Mussoorie Hills, near Dehra Dun in Uttar Pradesh. It does not appear to have been seen in the wild for 40 years.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2538, 4799

**Acer oblongum var. microcarpum**  
Aceraceae  
Colombia

Specimens from this tree were collected just once during colonial times from sub-tropical pine forest in the Mishnee Hills, Lohit District. The area is relatively remote but there is some concern that the forests have become vulnerable to clearance for jhum or agriculture.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2538, 4799

**Acer undulatum**  
Aceraceae  
Turkey

A tree of montane scrub, endemic to a small area in Babadag, near Fethiye in Mugla.

**Assessor:** Guner, A.  
**Refs:** 3489, 4863, 19165

**Acidocarpon gentryi**  
Euphorbiaceae  
Colombia

An endemic to Cundinamarca.

**Assessor:** Calderon, E.  
**Refs:** 19069

**Acidocarpon verrucosus**  
Euphorbiaceae  
Jamaica

Known only from Clarendon and Trelawny Parishes, the species occurs in rare and local populations in remaining areas of woodland on limestone rocks.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 7980

**Acioa cinerea**  
Chrysobalanaceae  
Cameroon

This species has been collected only from lowland rainforest, around the Bipindi area. It is not known whether the population still exists. There has been much habitat loss through expanding agriculture.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 12597

**Acioa dichotoma**  
Chrysobalanaceae  
Nigeria

A species for which there is little information. Like A. eketensis, it is apparently endemic to the Eket area, where oil exploration operations have caused the extensive, if not complete, destruction of the habitat.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 450, 2773

**Acioa eketensis**  
Chrysobalanaceae  
Nigeria

As with A. dichotoma, this species is poorly known and endemic to Eket in south-east Nigeria, where the effects of oil exploration operations have caused the extensive, if not complete, destruction of the habitat.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 450, 2773

**Acmapyle sahniana**  
Podocarpaceae  
Fiji

The species appears to be restricted to forested ridges on two mountain tops in central Viti Levu. Very few individuals have been found and there is little evidence of regeneration.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 9631, 13041, 18818, 19125

**Acidocarpus socotranus**  
Malpighiaceae  
Yemen (Socotra)

A small tree or shrub, occurring as scattered solitary individuals in dry woodland or shrubland. There are no immediate threats.

**Assessor:** Miller, A.G.  
**Refs:** 2354, 19083

**Acranchia porteri**  
Rutaceae  
Malaysia (Peninsular Malaysia), Singapore

Occurring throughout Peninsular Malaysia, this tree, of up to 40m height, is found in moist forest up to an altitude of 1060m. A protected population is contained within Taman Negara National Park.

**Assessor:** Chua, L.S.L.  
**Refs:** 9199, 11647, 19073

**Acropagone aoupiniensis**  
Sterculiacaeae  
New Caledonia

**Assessor:** Jaffré, T. et al.  
**Refs:** 10351
Acropogon bullatus
Sterculiaceae  VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Acropogon damatifer
Sterculiaceae  VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Acropogon fastiosides
Sterculiaceae  VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Acropogon megaphyllus
Sterculiaceae  VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Acropogon veillonii
Sterculiaceae  EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Acsmishia vitiense
Cunoniaceae  EN D1
Fiji
A small gnarled tree growing in thickets on ridges and crests in upland areas. The species represents the easternmost member of the genus with definite occurrences on Viti Levu, Ovalau and Vanua Levu. There are few trees in each location and the total population consists of less than a hundred individuals.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Actinodaphne albifrons
Lauraceae  VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 17195

Actinodaphne bourneae
Lauraceae  EN B1+2c
India (Tamil Nadu)
A small tree known from only a small area of *shola forest above 1600m in the Palni Hills. Declines in the habitat have resulted in subpopulations becoming further restricted.
Assessor: World Conservation Monitoring Centre
Refs: 14276, 19144

Actinodaphne campanulata var. campanulata
Lauraceae  VU B1+2c
India (Tamil Nadu)
A small tree of evergreen forest between 1200 and 1800m. The main concentration of populations occur along the Agasthyamalai range. A collection has also been made in an outlying area in the Elamalai.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Actinodaphne campanulata var. obtusa
Lauraceae  EN B1+2c
India (Kerala)
Recorded only from the type locality, this variety occurs on the Agasthyamalai Hills in evergreen forest between 1000 and 1300m. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood but about 1000km² of forest are protected within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 4627, 19144

Actinodaphne cuspidata
Lauraceae  CR B1+2c
Malaysia (Peninsular Malaysia)
Known only from Ulu Bera in Perak, a single collection of this small tree was made in the last century. It is uncertain whether the collection locality is still forested as there has been much settlement and forest clearance in the area.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Actinodaphne elliptichaca
Lauraceae  VU D2
Viet Nam
A small tree endemic to a single high mountain locality, Sa Pa in Lao Kai Province in north Viet Nam. It occurs in subtropical open forests at about 1500m.
Assessor: World Conservation Monitoring Centre
Refs: 848, 15357

Actinodaphne fragilis
Lauraceae  VU D2
Malaysia (Peninsular Malaysia)
Restricted to the Ulu Bubong Hills, this tree of lowland forest has been collected twice only.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Actinodaphne johorensis
Lauraceae  VU B1+2c
Malaysia (Peninsular Malaysia)
Known from very few collections from Pahang and Johore, this species occurs in lowland forest, which is threatened by land conversion for agriculture.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Actinodaphne lanata
Lauraceae  CR B1+2c
India (Tamil Nadu)
Endemic to the Nilgiri Hills, where the only recorded population occurred in *shola forest between 1500 and 1800m. There have been no records since 1889.
Assessor: World Conservation Monitoring Centre
Refs: 14276, 19144

Actinodaphne lawsonii
Lauraceae  VU B1+2c
India (Karnataka, Kerala, Tamil Nadu)
A small tree of evergreen forest, known from scattered populations in the Western Ghats. It has been collected mostly from isolated peaks in the Nilgiris, occurring up to 2500m. Populations have also been recorded from outlying areas, mainly at high altitudes, from South Kanara in Karnataka and the Anamalai range. The
habitat is threatened in places with clearance for the cultivation of commercial crops.

Assessor: World Conservation Monitoring Centre
Refs: 14276, 19144

Actinodaphne salicina
Lauraceae EN B1+2c
India (Kerala, Tamil Nadu)
Only two collections of the species appear to have been made. The type specimen was found in the Nilgiri Hills in Tamil Nadu. A second occurrence has been recorded from the north of the Travancore range in Kerala.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Actinokentia huerlimannii
Palmae LR/cd
New Caledonia
A species of south-eastern New Caledonia, occurring on serpentine soils in wet forest at an altitude of 850–880m.
Assessor: Jaffré, T. et al.
Refs: 10351, 19118

Actinostrobus acuminatus
Cupressaceae LR/nt
Australia (Western Australia)
A shrubby tree which is confined to Western Australia. It is not heavily exploited but if fires were to increase the species might become threatened.
Assessor: World Conservation Monitoring Centre
Refs: 374, 8843

Actinostrobus pyramidalis
Cupressaceae LR/nt
Australia (Western Australia)
A shrubby tree confined to Western Australia. There are no obvious threats to the species other than its sensitivity to fires.
Assessor: World Conservation Monitoring Centre
Refs: 374, 10488

Adansonia madagascariensis
Bombacaceae LR/nt
Madagascar
Occurring in dry or moist forest, the species extends from Antsiranana to the Sambirano region and perhaps Soalala. Occurrences in the south-east of the country appear to be Adansonia za. Little is known of the conservation status but the clearance of the habitat has been extensive in places.
Assessor: World Conservation Monitoring Centre
Refs: 15649

Adansonia perrieri
Bombacaceae EN B1+2c, C2a
Madagascar
Confined to the northern tip of Madagascar the species is known from just five sites. Although further locations are likely to be found the known populations are evidently very small; only one, at Ambondromifhey, contains more than a dozen individuals. This region of northern Madagascar is considerably disturbed by fire and the extraction of firewood and timber. Seed predation by rats also appears to be limiting the chances of population recruitment.
Assessor: World Conservation Monitoring Centre
Refs: 11959, 15649

Adansonia rubrostipa
Bombacaceae LR/nt
Madagascar
The species extends along the west coast from near Itampolo in the south-west to Soalala in the north-west, occurring in spiny and dry forest. This wide distribution ensures the species is conservationally secure, although populations north of Toliara are threatened with destruction for charcoal production. There has been considerable population declines in the past because of the dramatic rate of habitat loss. The long generation time of baobabs makes them more vulnerable. This species plays a significant role in providing important resources for humans, lemurs, insects and other animals.
Assessor: World Conservation Monitoring Centre
Refs: 15649

Adansonia suarezensis
Bombacaceae EN B1+2c
Madagascar
Until recently the species was thought to be restricted to the northern tip of Madagascar around the Baie d'Antsiranana. A population has since been found further south in Mahory forest between Ankarana and Analamera Reserves. Its natural habitat is deciduous forest on limestone, although small trees are also found in disturbed sublittoral scrub. Individuals are found in local abundance but are regenerating healthily only in Mahory. The forest's proximity to a rapidly growing mining town leads to intensive wood and charcoal extraction, grazing and hunting. Populations elsewhere are smaller, show few signs of regeneration and are threatened by the rapid depletion of the habitat through charcoal and timber production. The trees are protected from cutting, in places, because of their valued uses.
Assessor: World Conservation Monitoring Centre
Refs: 14208, 15649, 19024

Adansonia za
Bombacaceae LR/nt
Madagascar
A species of dry or spiny forest, savannas and scrubland from Andohahela and the Mandrare River in the south-west through southern and western Madagascar to the Boina region and the Sambirano River basin. It is less abundant and restricted to riverine areas in the north-west. The abundance and the wide range of the species ensures that it is relatively safe. However, several populations are threatened with forest clearance and, given the long generation time of the baobab and the dramatic habitat loss that has occurred in the past, the
species may be more vulnerable. It is a key species in providing nesting holes and perches for various animals, as well as food for insects, birds and lemurs.

**Adelobotrys panamensis**
Melastomataceae CR B1+2c Panama
Endemic to the mountains of El Copé in Coclé Province, the species occurs in cloud forest, mostly on riversides, to the north of the community. It appears to be common in this small area. The forest here has been much reduced by the increasing settlement of the area.

**Adenanthera bicolor**
Leguminosae VU A1c Sri Lanka
An endemic tree restricted to the lowland wet evergreen forests of south-west Sri Lanka. It was discovered in 25 forests during the recent National Conservation Review, including the Sinharaja Biosphere Reserve.

**Adenanthera intermedia**
Leguminosae VU A1cd Philippines
A timber tree, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

**Aedium obesum ssp. socotranum**
Apocynaceae VU D2 Yemen (Socotra)
A succulent tree which is widespread on the plains, foothills and limestone plateau. It is very common in some areas and because of its poisonous nature is avoided by grazing animals.

**Adenopodia rotundifolia**
Leguminosae VU B1+2c Somalia, Tanzania
This species is known from southern Somalia and eastern Tanzania. It occurs in deciduous bushland or woodland in seasonally flooded areas. It is highly restricted in occurrence, in a habitat which is experiencing declines because of overcutting for charcoal production and grazing.

**Adinandra angulata**
Theaceae LR/cd Malaysia (Peninsular Malaysia)
A small tree of cloud forest, distributed between 1700m and 1800m, confined to Pahang on Gunung Tahan, where it is protected within Taman Negara National Park.

**Adinandra corneriana**
Theaceae VU B1+2c Malaysia (Peninsular Malaysia)
A small tree occurring in lowland forest, hill forest and occasionally along sandy river banks in Terengganu, Pahang (Gunung Tahan) and Johore.

**Adinandra forbesii**
Theaceae LR/nt Indonesia (Irian Jaya), Papua New Guinea
A tree scattered in monsoon forest, savanna woodland and lower montane forest up to 1200m. In Papua New Guinea, the population has suffered from logging activities over recent years in the Oriomo River area, Western Province, where the species was once fairly common.

**Adinandra griffithii**
Theaceae EN A1c, B1+2c India (Meghalaya)
A small tree confined to Cherrapunji and Shongpung forests. At Cherrapunji a cement factory has caused the loss of habitat. The species has not been recorded since 1938 and has clearly suffered from habitat declines.

**Adinandra integerrima**
Theaceae LR/cd Malaysia (Peninsular Malaysia), Singapore
Occurring in lowland, submontane and hill rainforests of Kedah, Perak, Penang, Pahang, Johore and Singapore, this species can be found in state parks.

**Adinandra parvifolia**
Theaceae LR/cd Malaysia (Peninsular Malaysia)
This rare tree inhabits cloud forest between 1500 and 2000m in Kedah, Perak and Pahang. It receives a degree of protection within the permanent forest estate.

**Adonidia merrillii**
Palmaceae LR/nt Philippines
A palm tree occurring in open forest on steep limestone slopes in coastal areas of Coron, Palawan Island. The species is protected by its inaccessible location. The supply of plants and seeds in the nursery trade appear to be abundant.

**Aegiphila cunea var. hirsutissima**
Verbenaceae VU D2 Peru
A variety known only from the type collection taken from lowland Amazon forest in the department of Loreto.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 15649

**Assessor:** World Conservation Monitoring Centre

**Refs:** 16772

**Assessor:** Mitré, M.

**Refs:** 19112

**Assessor:** Eddowes, P.J.

**Refs:** 19114

**Assessor:** P.J.

**Refs:** 2538

**Assessor:** Chua, L.S.L.

**Refs:** 5550, 9199, 11647, 19073

**Assessor:** Chua, L.S.L.

**Refs:** 8464, 19073

**Assessor:** Johnson, D.

**Refs:** 19118

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1984
Aegiphila fasciculata
Verbenaceae
VU A1c, C2a
Guatemala, Honduras, Nicaragua
A tree of middle elevation, occurring in areas of humid forest, which are reduced in extent and continue to be extensively degraded.
Assessor: Nelson, C.
Refs: 4861, 4974, 13995

Aegiphila ferruginea
Verbenaceae
VU B1+2c
Ecuador
This endemic tree of the Ecuadorean High Andes inhabits montane and upper montane cloud forest between 2500m and 3900m.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Aegiphila monstrosa
Verbenaceae
VU A1c, C2a
Belize, Guatemala, Honduras, Mexico
A small tree or treelet of wet thickets within thin forest or in second growth, principally in the Atlantic lowlands. The habitat is reduced through conversion to agriculture.
Assessor: Nelson, C.
Refs: 13995

Aegiphila monticola
Verbenaceae
VU B1+2c
Ecuador
An endemic tree of Ecuador, inhabiting montane cloud forest at altitudes between 2200 and 3000m in Cotopaxi and Bolívar.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Aegiphila panamensis
Verbenaceae
VU A1c
Belize, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama
Although widespread, the species is never abundant, occurring in remaining areas of lowland rainforest and thickets, often in marshy places.
Assessor: Nelson, C.
Refs: 13995

Aegiphila purpurascens
Verbenaceae
VU B1+2c
Ecuador
This Ecuadorean endemic inhabits cloud forest at altitudes between 2440 and 2950m. It is currently known only from Azuay Province.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Aegiphila rimbachii
Verbenaceae
VU B1+2c
Ecuador
This endemic tree of Ecuador inhabits cloud forest at 2600m altitude in the High Andean areas of Bolívar Province.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Aegiphila skutchii
Verbenaceae
VU C2a
Guatemala, Honduras, Mexico
An uncommon species of humid forest, occurring at medium elevation.
Assessor: Nelson, C.
Refs: 13995

Aeguatorium asterotrichum
Compositae
VU B1+2c
Ecuador
A species which is confined to upper montane forest of the Ecuadorean Andes.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Aeguatorium rimachianum
Compositae
VU D2
Peru
So far the species is known only from the type collection taken from rocky slopes between 2500 and 3000m in the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Aerisilvaea sylvestris
Euphorbiaceae
EN C2b, D1
Tanzania
The species is confined to an area no greater than 0.1km² within swamp forest in Kimboza Forest Reserve (4km²).

Aesculus wangii
Hippocastanaceae
VU A1a, B1+2a, C1+2a
China (Yunnan), Viet Nam
Populations are known from south Yunnan and Lào Chi Province in north Viet Nam. Trees occur singly or in groves in remaining areas of semi-evergreen broadleaved forest on limestone mountains. The present knowledge of the species distribution is not complete but significant habitat declines are occurring in the areas where the species is known, largely because of encroaching agriculture but also logging for timber.
Assessor: Rushforth, K.
Refs: 1818, 6163, 11847, 19055

Aextoxicon punctatum
Aextoxicaceae
DD
Argentina (Chubut), Chile
A taxonomically interesting species, the only member of the family. Occurring in broadleaved evergreen montane forest, its distribution is restricted in Argentina to the north-west of Chubut in Lago Puelo, probably in the protected area of that name. Data are not yet available on the status and distribution of the species in Chile.
Assessor: Prado, D.
Refs: 1262, 5112

Afrocarpus mannii
Podocarpaceae
VU D2
São Tomé & Príncipe (São Tomé)
A montane species endemic, occurring in rainforest above 1300m to the summit of the Pico. There is little
threat to the habitat, although there was extensive deforestation earlier in the century up to 1500m.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 2421, 2773, 13041

### Afrocarpus usambarensis

**Podocarpaceae**  
Tanzania

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 4391, 13041

### Afrostyrax lepidophyllus

**Huaceae**  
VU A1c, B1+2c  
Cameroon, Gabon, Ghana

The species is rare, with a disjunct distribution. Populations are confined to areas of wet evergreen forest contained within Subri and Cape Three Points Forest Reserve in Ghana, in parts of the South West Province in Cameroon and in Gabon in an area to the north and in Lopé Forest Reserve. The forest has been converted into a commercial plantation in Subri and in Cape Three Points mining has destroyed areas of forest.

**Assessor:** Hawthorne, W.  
**Refs:** 2773, 7142, 8854, 12061, 19043

### Afzelia africana

**Leguminosae**  
Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, Côte d’Ivoire, Democratic Republic of Congo, Ghana, Guinea, Guinea-Bissau, Mali, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Togo, Uganda

A widespread species of dry forest and woodland which has declined in population numbers through exploitation of the timber for the international market.

**Assessor:** African Regional Workshop  
**Refs:** 2362, 2773, 7550, 7808, 10961, 16021

### Afzelia bipindensis

**Leguminosae**  
VU A1cd  
Angola, Cameroon, Central African Republic, Congo, Democratic Republic of Congo, Gabon, Nigeria, Uganda

A widespread rainforest species. It is heavily exploited throughout its range for its valuable timber. In some areas there are reported to be few seed trees remaining.

**Assessor:** African Regional Workshop  
**Refs:** 2362, 2773, 6718, 14667, 17408

### Afzelia pachyloba

**Leguminosae**  
VU A1d  
Angola, Cameroon, Congo, Democratic Republic of Congo, Gabon, Nigeria

A rainforest species which is heavily exploited for its commercial timber. Relatively few seed trees remain throughout its range.

**Assessor:** African Regional Workshop  
**Refs:** 2362, 2773, 6718, 17408

### Afzelia rhomboidea

**Leguminosae**  
VU A1cd  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Philippines

A slow-growing species scattered on low hills and ridges and temporarily inundated sites. The timber is regarded as very valuable locally and, in the past, exploitation has been considerable in the Philippines.

**Assessor:** Asian Regional Workshop  
**Refs:** 4919, 5550, 12937, 14573, 19057

### Afzelia xylocarpa

**Leguminosae**  
EN A1cd  
Cambodia, Laos, Myanmar, Thailand, Viet Nam

A tree found throughout Indo-China, where it grows in dense forest, and in transitional areas between evergreen and dry open dipterocarp forest. In Viet Nam the hard, attractive wood is highly valued for carpentry. Because of high levels of exploitation and habitat loss, large trees are scarce and hard to find.

**Assessor:** Nghia, N.H.  
**Refs:** 848, 6646, 11530, 14573

### Agathis atropurpurea

**Araucariaceae**  
LR/nt  
Australia (Queensland)

A timber species scattered in montane rainforest. Wherever logging is allowed exploitation has been very heavy and populations have declined. A large percentage of the forests is now protected.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 707, 3092, 13041, 17200

### Agathis caribbii

**Araucariaceae**  
VU B1+2c  
New Caledonia

Endemic to northern New Caledonia, this species is scattered in areas of lowland moist forest on non-ultramafic substrates. It is exploited for its timber, most heavily at a local level.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 10351, 12630

### Agathis dammara

**Araucariaceae**  
VU A1cd  
Brunei, Indonesia (Java, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)

The taxonomy and nomenclature of the species is still widely confused with A. borneensis and A. philippinensis. Agathis species are distinctive, highly sought-after and exploited for their valuable timber. Large stands of these species have been completely extracted throughout much of its range, most notably in Kalimantan. Exploitation continues to be heavy and regeneration in residual stands is insufficient to replace lost populations. In the past the tree has also been destructively exploited for copal. Plantations are now established.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 6845, 10938, 13041, 14573

### Agathis enderti

**Araucariaceae**  
LR/nt  
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)

Although the species is widespread, it occurs in isolated populations in moist lowland forest associated with sandstone *kerangas*. The timber is heavily exploited.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 6851

### Agathis flavescens

**Araucariaceae**  
VU D2  
Malaysia (Peninsular Malaysia)

Less than 10,000 individuals are likely to exist in three separate populations, occurring in moist montane forest. Individuals frequently display yellowing leaves suggestive of poor nutrient conditions. The species
receives a degree of protection within the permanent forest estate.
Assessor: SSC Conifer Specialist Group
Refs: 6851, 13041, 19073

**Agathis kinabaluensis**

Araucariaceae
VU D2
Malaysia (Sabah, Sarawak)
The species is only known from Mount Kinabalu in Sabah, where it is apparently relatively common in mossy ridge forest above 1500m. There is also a disjunct population, which occurs within a highly restricted area on the summit ridge of Mount Murud in Sarawak. This latter occurrence has been referred to as *A. orbicula* by de Laubenfels. The Mount Kinabalu population is almost entirely contained within a national park. The Mount Murud population is unprotected and the area is under considerable pressure for development.
Assessor: SSC Conifer Specialist Group
Refs: 6851, 13041, 19017, 19125, 19192

**Agathis lanceolata**

Araucariaceae
LR/cd
New Caledonia
A species endemic to New Caledonia, which occurs in areas of rainforest on the southern ultramafic massifs. The species continues to be over exploited. The species is also sensitive to wildfires and in some places it has retreated to sheltered valleys. There is effective protection of populations occurring in Rivièr Bleu Provincial Park.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

**Agathis lenticula**

Araucariaceae
VU D2
Malaysia (Sabah)
Occurring in lower montane forest and possibly hill forest, this large tree is known only from Mount Kinabalu and the adjacent Crocker range. Populations in the former are relatively well protected. The Crocker range, however, is a large area with a poorly defined boundary. There are frequent illegal incursions, mainly to remove timber from this species.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6851, 19125

**Agathis microstachya**

Araucariaceae
LR/cd
Australia (Queensland)
As with *A. atropurpurea*, this timber species is found in low densities in localised lowland rainforest. Logging is heavy where the forest is unprotected. Before 1985 the population had been halved by logging but 70% of the forests are now protected.
Assessor: SSC Conifer Specialist Group
Refs: 17200, 18170

**Agathis montana**

Araucariaceae
LR/cd
New Caledonia
A species restricted to high altitude rainforests on Mount Panié. It is locally abundant and in an area which is relatively inaccessible and well protected.
Assessor: SSC Conifer Specialist Group
Refs: 2230, 9631, 12630

**Agathis moorei**

Araucariaceae
VU B1+2c
New Caledonia
Scattered throughout the northern half of the island, the species is found in areas of lowland rainforest mostly on non-ultramafic substrates. Substantial declines have occurred through overexploitation of the timber in recent years. Copal is also extracted at moderate levels.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

**Agathis orbicula**

Araucariaceae
VU B1+2c
Malaysia (Sabah, Sarawak)
Ranging from southern Sabah to central Sarawak, this tree is found scattered in relatively few locations in rainforests and *kerangas* on low mountains and plateaux. Levels of timber exploitation and the effects on populations are little known but are likely to be considerable.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6851

**Agathis ovata**

Araucariaceae
LR/cd
New Caledonia
The species is scattered in maquis shrubland in a few localities on ultramafic soils in the south. Pressures are exerted by mining activities, fires and also by logging. The species is slow growing but regenerates well where there is no burning. Populations in Rivièr Bleu Provincial Park are effectively protected.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

**Agathis philippinensis**

Araucariaceae
VU A1cd
Indonesia (Moluccas, Sulawesi), Philippines
Assessor: SSC Conifer Specialist Group
Refs: 4919, 12937, 13041, 14573

**Agathis silbae**

Araucariaceae
VU D2
Vanuatu
The Forestry Department in Vanuatu recognise this species as a synonym of *A. macrophylla*, which in turn is synonymous with *A. vitensis*. The taxon encompassing *A. silbae* according to the SSC Conifer Specialist Group is confined to Santo Peak on the island of Santo. Logging is a major threat, but at present land disputes have halted logging activities temporarily.
Assessor: SSC Conifer Specialist Group
Refs: 374, 11632, 12656, 19192

**Agathis spathulata**

Araucariaceae
LR/nt
Papua New Guinea
Scattered emergents survive in small exposed groves of rainforest in the eastern highlands. Overexploitation of the timber is a threat.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6851, 13041

**Agathis vitensis**

Araucariaceae
LR/nt
Fiji, Solomon Islands (Santa Cruz Is), Vanuatu
A massive tree and important timber species. It is found
in low densities. It could become of conservation concern if logging were to become more intensive. 
Assessor: SSC Conifer Specialist Group 
Refs: 374, 13041, 18818

**Aglaia agglomerata**
Meliaceae  
Indonesia (Irian Jaya), Papua New Guinea  
Endemic to the island of New Guinea, this tree is scattered in lowland to midmontane primary and secondary forest. Habitat loss is a potential threat to this species.  
Assessor: Pannell, C.M.  
Refs: 6509, 11145, 19129

**Aglaia aherniana**
Meliaceae  
Philippines  
A tree endemic to the Philippines. The species is threatened by habitat destruction.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia amplexicaulis**
Meliaceae  
Fiji  
A Fijian endemic of dense forest, known only from three collections.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia angustifolia**
Meliaceae  
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Philippines  
A tree of primary forest and swamp forest up to 1450m, suffering from habitat loss.  
Assessor: Pannell, C.M.  
Refs: 6509, 17140, 19129

**Aglaia apiarcarpa**
Meliaceae  
India, Sri Lanka  
This species is found in wet evergreen forest, primary and secondary forest in southern India and Sri Lanka. It is threatened by habitat destruction.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia archboldiana**
Meliaceae  
Fiji  
A forest tree known only from three localities on Viti Levu.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia australiensis**
Meliaceae  
Australia (Queensland)  
This small tree occurs in lowland rainforest, coastal rainforest and complex mesophyll forest in the Cook District, Queensland. However, more information is needed on the status of the forest in this region.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia barbanthera**
Meliaceae  
Indonesia (Irian Jaya), Papua New Guinea  
This species is restricted to primary forest in New Guinea between 60 and 2000m. Habitat loss threatens this species.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia basiphylla**
Meliaceae  
Fiji  
Found between 50 and 1075m, this primary forest tree is endemic to Fiji. Habitat loss is a threat to this species.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia bourdillonii**
Meliaceae  
India  
This species is restricted to the Agastyamalai Hills in southern India, where large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood but about 1000km² of forest are protected within sanctuaries.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia brassii**
Meliaceae  
Australia (Queensland), Indonesia (Irian Jaya), Papua New Guinea (North Solomons, Papua New Guinea), Solomon Islands (South Solomon)  
This understory tree is fairly common in lowland primary and secondary forest up to 500m. The main threat to the species is loss of habitat.  
Assessor: Pannell, C.M.  
Refs: 6509, 17200, 19129

**Aglaia brownii**
Meliaceae  
Australia (Northern Territory, Queensland), Indonesia (Irian Jaya), Papua New Guinea  
A small tree mainly found in coastal forest. Habitat destruction is the main threat to the species.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia ceramicra**
Meliaceae  
Indonesia (Moluccas)  
A small tree endemic to primary forest in the Moluccas; it is apparently confined to four localities.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

**Aglaia chittagonga**
Meliaceae  
Bangladesh, Taiwan, Thailand  
A small tree of lowland forest found along rivers and near beaches. It is named after the type location in Chittagong, Bangladesh. Habitat destruction is the main threat to the species.  
Assessor: Pannell, C.M.  
Refs: 6509, 7933, 19053, 19129
Aglaia cinnamomea  
Meliaceae  
Indonesia (Irian Jaya), Papua New Guinea  
Confined to New Guinea, this species is suffering from habitat destruction.  
Assessor: Pannell, C.M.  
Refs: 6509, 7510, 19129

Aglaia coriacea  
Meliaceae  
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia)  
A small tree of primary lowland forest found in only a few localities in east and central Peninsular Malaysia. In Borneo, this species is known only from the type collection. It is threatened by forest destruction.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

Aglaia costata  
Meliaceae  
Philippines  
A small tree endemic to the Philippines. It is threatened by habitat loss.  
Assessor: Pannell, C.M.  
Refs: 6509, 11145, 19129

Aglaia cassinervia  
Meliaceae  
Brunei, India (Andaman and Nicobar Is. - Nicobar Is.), Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Myanmar, Philippines, Thailand  
A widespread tree found in forest and seasonal swamp up to 1570m. Habitat destruction is a potential threat to the species.  
Assessor: Pannell, C.M.  
Refs: 6509, 7087

Aglaia cremea  
Meliaceae  
Papua New Guinea  
A small tree endemic to Papua New Guinea where it grows in secondary forest and hill forest. The main threat to the species is habitat destruction.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

Aglaia cucullata  
Meliaceae  
Bangladesh, India (Andaman and Nicobar Is. - Andaman Is., Orissa), Indonesia (Irian Jaya, Java, Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Myanmar, Nepal, Papua New Guinea, Philippines, Singapore, Thailand, Viet Nam  
This widespread tree is the only member of the genus found in areas of mangrove, nipah (Nypa fruticans) swamp and estuaries. It provides an important timber for house, bridge and boat construction and is found in trade as Pacific Maple. Habitat loss is a potential threat.  
Assessor: Pannell, C.M.  
Refs: 6509, 7147, 9199, 11145, 12937, 19129

Aglaia cumingiana  
Meliaceae  
Brunei, Malaysia (Sabah, Sarawak), Philippines  
A species of primary, secondary and gallery forest up to 1330m, confined to northern Borneo and the Philippines. Forest destruction threatens this species.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

Aglaia cuspidata  
Meliaceae  
Papua New Guinea  
A rainforest tree, known only from three localities.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

Aglaia densisquama  
Meliaceae  
Malaysia (Sarawak)  
A species, endemic to Sarawak, confined to primary and riverine forest.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

Aglaia densiritcha  
Meliaceae  
Malaysia (Peninsular Malaysia)  
A small tree known only from the type collection found in 1953 along the Terengganu-Besut road. It may now be extinct.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

Aglaia edulis  
Meliaceae  
Bhutan, Cambodia, China (Guangdong - Hainan), India (Andaman and Nicobar Is. - Nicobar Is.), Indonesia (Bali, Java, Lesser Sunda Is., Moluccas, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia), Myanmar, Philippines, Thailand, Viet Nam  
A rare, scattered timber tree primarily found in evergreen and primary forest along rocky coasts. It is potentially threatened by habitat loss. This species might have some value as a fruit tree.  
Assessor: Pannell, C.M.  
Refs: 4919, 6509, 11145, 19129

Aglaia erythrosperma  
Meliaceae  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Thailand  
A large, occasionally emergent, tree found growing in primary and evergreen forest. It is threatened by habitat loss. It has potential as a valuable timber.  
Assessor: Pannell, C.M.  
Refs: 6509, 11145, 19129

Aglaia euryanthera  
Meliaceae  
Australia (Queensland), Indonesia (Irian Jaya), Papua New Guinea  
A small tree found in many forest habitats up to 2100m. Habitat loss could threaten this species.  
Assessor: Pannell, C.M.  
Refs: 6509, 19129

Aglaia evansensis  
Meliaceae  
Fiji  
A forest shrub or tree confined to the Mount Evans range of north-west Viti Levu.  
Assessor: Pannell, C.M.  
Refs: 6509
| Aglaia extipulata | Meliaceae | LR/nt |
| Malaysia (Peninsular Malaysia), Myanmar, Singapore, Thailand, Viet Nam |
| This tree is quite common in the primary and secondary forests of Peninsular Malaysia. It is potentially threatened by habitat loss. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 9199, 11145, 19129 |

| Aglaia flaviscens | Meliaceae | VU D2 |
| Indonesia (Irian Jaya), Papua New Guinea |
| A small tree confined to the island of New Guinea. So far it is known from only four localities. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 19129 |

| Aglaia flavida | Meliaceae | LR/nt |
| Indonesia (Irian Jaya), Papua New Guinea (Bismarck Archipelago, North Solomons, Papua New Guinea), Solomon Islands (South Solomon) |
| The wood of this common tree is used for construction of houses, tools and canoes. Habitat destruction is possibly a threat. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 11145, 19129 |

| Aglaia forbesii | Meliaceae | LR/nt |
| Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Myanmar, Thailand |
| Found up to 1000m, this widespread tree occurs in forest, and is potentially threatened by habitat loss. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 7087, 11145, 19129 |

| Aglaia foveolata | Meliaceae | LR/nt |
| Brunei, Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak) |
| Occurring in lowland forest and swamp forest up to 1000m, this tree could be threatened by habitat loss. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 11145, 19129 |

| Aglaia gracilis | Meliaceae | CR D1 |
| Fiji |
| A small slender tree only known from two forest localities on Viti Levu. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 19129 |

| Aglaia grandis | Meliaceae | LR/nt |
| Indonesia (Sulawesi), Malaysia (Peninsular Malaysia), Philippines, Thailand, Viet Nam |
| A tree apparently confined to primary forest, a habitat type which is being destroyed. A. perfulta may be synonymous or possibly a subspecies of this taxon. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 11145, 19129 |

| Aglaia heterotrucha | Meliaceae | CR D1 |
| Tonga |
| This species is known only from the type collection in 1952 from Eua Island, Tonga. It might be extinct. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 19129 |

| Aglaia hiernii | Meliaceae | LR/nt |
| Indonesia (Sumatra), Malaysia (Peninsular Malaysia) |
| Occurring between 20 and 1700m, this tree is found in primary and secondary forest and in old wasteland. Habitat destruction is a potential threat to the species. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 11145, 19129 |

| Aglaia integrifolia | Meliaceae | VU D2 |
| Papua New Guinea |
| A small tree restricted to lowland deciduous hill forest in Papua New Guinea. So far it is known from only four localities. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 19129 |

| Aglaia korthalsii | Meliaceae | LR/nt |
| Bhutan, Brunei, India (Assam), Indonesia (Kalimantan, Lesser Sunda Is., Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Philippines, Thailand |
| Found up to 1700m, this tree grows in primary and secondary forest as well as peat swamp forest. Habitat loss could pose a threat to this species. The arillate seeds of this species are dispersed by primates. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 7087, 19129 |

| Aglaia lancilimba | Meliaceae | LR/nt |
| Indonesia (Bali, Lesser Sunda Is., Sulawesi), Malaysia (Sabah), Philippines |
| A tree found in forest, including swamp forests in the Philippines, Bumbun Island of Sabah, Bali, Sumbawa, Flores and Sulawesi of Indonesia. The species might be at risk in the near future from habitat loss. |
| Assessor: Pannell, C.M. |
| Refs: 6509, 19129 |
**Aglaia laxiflora**
Meliaceae  
VU A1c
Brunei, Indonesia (Kalimantan), Malaysia (Sabah)
A tree species restricted to the primary forest and periodically inundated dipterocarp forest of Borneo, excluding Sarawak. Loss of habitat threatens this species.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 19129

**Aglaia lepidopetala**
Meliaceae  
LR/nt
Indonesia (Irian Jaya), Papua New Guinea
Fairly widespread but rare, this understory forest species is restricted to New Guinea where there is a potential threat from logging and forest conversion.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 19129

**Aglaia lepiophrhachis**
Meliaceae  
VU A1c
Brunei, Indonesia (Irian Jaya), Papua New Guinea
A small tree endemic to the lowland and hill forests of New Guinea. Habitat destruction poses a threat to this species.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 19129

**Aglaia leptanthra**
Meliaceae  
LR/nt
Indonesia (Java, Lesser Sunda Is., Sumatra), Malaysia (Peninsular Malaysia), Philippines, Singapore, Thailand, Viet Nam?
A tree occurring in many forest habitats and in seasonal swamps: habitat loss is the main threat to this species. The wood of this widespread tree is used for furniture and house construction.
**Assessor:** Pannell, C.M.
**Refs:** 4919, 6509, 9199, 10547, 11145, 19129

**Aglaia leucocladia**
Meliaceae  
VU A1c
Papua New Guinea
An understory tree endemic to Papua New Guinea. Habitat destruction is the main threat to this species.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 19129

**Aglaia leucophylla**
Meliaceae  
LR/nt
Brunei, Indonesia (Kalimantan, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Philippines, Thailand
This species, usually found in secondary forest, is potentially under threat from habitat destruction. It is used for house poles in Borneo.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 7087, 11145, 19129

**Aglaia luzonisensis**
Meliaceae  
LR/nt
Indonesia (Sulawesi), Philippines
A small tree scattered in primary and secondary forest near the mangrove zone. Habitat decline might threaten this species. The wood is used for construction.
**Assessor:** Pannell, C.M.
**Refs:** 2072, 4919, 6509, 11145

**Aglaia mackiana**
Meliaceae  
CR D1
Papua New Guinea
A canopy tree most commonly found in mid-elevation forest. Trees may be easily overlooked as this dioecious species is only identified from the fruit. It is only definitely known from the type locality. Additional collections, which differ from the type specimen but may represent the same species, have been gathered from three localities. Forest fragmentation is likely to impede reproduction as it has been found that pollination is most efficient when individuals are less than 250m apart. The enormous seeds are dispersed by cassowaries.
**Assessor:** Pannell, C.M.
**Refs:** 7510, 19129, 19139

**Aglaia macrocarpa**
Meliaceae  
LR/nt
Brunei, Indonesia (Java, Kalimantan, Moluccas?, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Philippines?, Singapore, Thailand, Viet Nam
A species of lowland, hill and ridge forest up to 1740m, potentially threatened by habitat destruction.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 7087, 8865, 9199, 11145, 19129

**Aglaia macrostigma**
Meliaceae  
VU D2
Malaysia (Peninsular Malaysia)
This species is restricted to primary forest in Peninsular Malaysia. It is known from only four localities.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 19129

**Aglaia malabarica**
Meliaceae  
CR D1
India (Kerala)
A fairly common tree where it occurs, restricted to the type locality in evergreen forest in northern Kerala. There is also a second field record of an occurrence further north in Wayanad.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 19129, 19144

**Aglaia malaccensis**
Meliaceae  
LR/nt
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia), Philippines
A timber tree of primary and secondary forest threatened by habitat destruction.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 8865, 10547, 11145, 18327, 19129

**Aglaia mariannensis**
Meliaceae  
VU A1c
Guam, Northern Marianas, Palau
A variable species found in thickets and secondary forest on the larger Marianne and Caroline Islands. It is threatened by habitat decline.
**Assessor:** Pannell, C.M.
**Refs:** 6509, 15553, 19129

**Aglaia membranifolia**
Meliaceae  
VU A1c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
This tree of primary forest between 330 and 500m, is
known only from five localities in Peninsular Malaysia and Sumatra. It is threatened by habitat loss.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia meridionalis**
Meliaceae  
LR/nt  
Australia (Queensland)
A small, understory tree endemic to the east side of the Cape York Peninsula from Atherton Tableland south to Mount Bartle Frere, where it occurs mainly in montane and ridge-top rainforest. Loss of habitat is the main threat to the species.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia monogyza**
Meliaceae  
LR/nt  
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia, Sabah)
A small forest tree, sometimes occurring in freshwater swamp forest. It is confined to Sabah and Kalimantan, except for a single collection from eastern Peninsular Malaysia. It is potentially threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia multinervis**
Meliaceae  
LR/nt  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore
A timber tree of lowland forest, often on hillsides threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 9199, 11145, 19129

**Aglaia odorata**
Meliaceae  
LR/nt  
Cambodia, China (Guangdong - Hainan), Indonesia (Moluccas?), Laos?, Myanmar, Thailand, Viet Nam
A shrub or small tree found in the evergreen and secondary forest. It is an important ornamental species, commonly cultivated, especially the male specimens. The species status in the wild remains unclear. The wood is particularly good for turnery.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

**Aglaia oligophylla**
Meliaceae  
LR/nt  
Brunei, India (Andaman and Nicobar Is. - Andaman Is.), Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Philippines, Singapore, Thailand
A species found in many forest habitats which are threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 7087, 7147, 9199, 19129

**Aglaia pachyphylla**
Meliaceae  
LR/nt  
Indonesia (Java, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia), Philippines, Thailand
A large tree found in primary forest, secondary swamp forest and on forest margins. It is threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 10547, 11145, 19129

**Aglaia palembanica**
Meliaceae  
LR/nt  
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Philippines, Singapore
A tree found in primary and secondary, moist, lowland forest; habitat loss could pose a threat.
Assessor: Pannell, C.M.
Refs: 6509, 9199, 19129

**Aglaia parkii**
Meliaceae  
VU A1c
Fiji, Papua New Guinea (North Solomons), Solomon Islands (South Solomons)
A small tree of lowland primary forest threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia parviflora**
Meliaceae  
LR/nt  
Indonesia (Irian Jaya, Moluccas), Papua New Guinea (Bismarck Archipelago, North Solomons, Papua New Guinea), Solomon Islands (South Solomons)
Widespread in the Moluccas, New Guinea and the Solomon Islands, this forest tree could soon be threatened by habitat loss. The wood of this tree is used for house construction in Papua New Guinea.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

**Aglaia penningtoniana**
Meliaceae  
VU A1c
Papua New Guinea
A taxonomically variable species endemic to Papua New Guinea where it occurs in rainforest from low to montane elevations. Potentially serious threats are posed by selective logging and conversion of forest to agriculture.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

**Aglaia perviridis**
Meliaceae  
VU A1c
Bangladesh, Bhutan, China, India (Andaman and Nicobar Is. - Andaman Is.), Malaysia (Peninsular Malaysia), Thailand, Viet Nam
A common species found scattered in primary and secondary evergreen forest on limestone. It is threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

**Aglaia pleuropteris**
Meliaceae  
CR D1
Cambodia?, Viet Nam
A small tree found only in south Viet Nam, although there are unconfirmed reports of an occurrence in Cambodia. It is only known from two 19th century collections. This species might be extinct.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia polyneura**
Meliaceae  
VU D2
Indonesia (Irian Jaya), Papua New Guinea
A small, shrubby tree endemic to New Guinea. It is apparently confined to two forest localities.
Assessor: Pannell, C.M.
Refs: 6509, 19129
**Aglaia puberulanthera**
Meliaceae  
Indonesia (Irian Jaya), Papua New Guinea
A very small tree, endemic to New Guinea, found growing in the understorey of primary and montane forest. The species is probably confined to only four localities.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia pyriformis**
Meliaceae  
Philippines
This tree is known only from two collections from Luzon. It was last collected in 1916 and may be extinct.
Assessor: World Conservation Monitoring Centre
Refs: 6509, 19129

**Aglaia ramotricha**
Meliaceae  
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
An understorey tree restricted to primary forest on limestone in Borneo. Habitat destruction is a threat to this species.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia rimoso**
Meliaceae  
Indonesia (Irian Jaya, Moluccas, Sulawesi), Papua New Guinea (Bismarck Archipelago, Papua New Guinea), Philippines, Taiwan
This shrub or tree is found in secondary forests along rivers and in coastal areas. Habitat loss could pose a threat.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

**Aglaia rivularis**
Meliaceae  
Indonesia (Kalimantan), Malaysia (Sabah)
A small, rheophytic tree confined to riverine forest on sandy soils in eastern Borneo. Habitat loss poses a threat to the species. The wood is used locally for fence posts in Sabah.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

**Aglaia rubiginosa**
Meliaceae  
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Philippines, Singapore
An emergent tree mainly found in freshwater peat swamp forest, an area particularly vulnerable to exploitation. The species is also found in dry heath forest, *kerangas*, lowland primary forest and hill forest. The wood is used in house and boat building.
Assessor: Pannell, C.M.
Refs: 5550, 6509, 8865, 9199, 10547, 11145, 12937, 18327, 19129

**Aglaia rubrivenia**
Meliaceae  
Papua New Guinea (North Solomons), Solomon Islands (South Solomon)
Restricted to the Solomon Islands, this small tree is found in primary montane forest.
Assessor: Pannell, C.M.
Refs: 6509

**Aglaia ruvinervis**
Meliaceae  
Indonesia (Java, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Singapore, Thailand
A common tree found in both primary and secondary forest. Habitat loss could pose a threat to this species.
Assessor: Pannell, C.M.
Refs: 6509, 7087, 9199, 11145, 19129

**Aglaia rugulosa**
Meliaceae  
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
A small tree occurring in lowland and hill forest up to 830m; habitat loss could pose a threat.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia saliatorum**
Meliaceae  
Fiji, Solomon Islands (Santa Cruz Is), Tonga, Vanuatu, Wallis and Futuna Islands
Occurring in lowland forest up to 520m, this small tree is threatened by habitat loss. The species was probably introduced to Niue.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia samoensis**
Meliaceae  
American Samoa, Indonesia (Irian Jaya), Papua New Guinea (Bismarck Archipelago, North Solomons, Papua New Guinea), Solomon Islands (Santa Cruz Is, South Solomon), Vanuatu, Wallis and Futuna Islands, Western Samoa
A small tree occurring in primary and secondary forest up to 830m; habitat loss could pose a threat.
Assessor: Pannell, C.M.
Refs: 6509, 16765, 19129

**Aglaia scortechinii**
Meliaceae  
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
This species is restricted to primary forest on limestone. It is threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 19129

**Aglaia sexipetala**
Meliaceae  
Indonesia (Irian Jaya, Java, Sumatra), Malaysia (Peninsular Malaysia), Papua New Guinea, Philippines?, Singapore, Thailand
Assessor: Pannell, C.M.
Refs: 6509, 7510, 9199
Aglaia silvestris
Meliaceae
LR/nt
Cambodia, India (Andaman and Nicobar Is. - Andaman Is., Andaman and Nicobar Is. - Nicobar Is.), Indonesia (Irian Jaya, Java, Kalimantan, Moluccas, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Papua New Guinea (Bismarck Archipelago, North Solomons, Papua New Guinea), Philippines, Solomon Islands (South Solomon), Thailand, Viet Nam
A widespread, variable species of various habitat types, occurring up to 2100m. Habitat destruction could be a serious threat in the near future. An important source of timber.
Assessor: Pannell, C.M.
Refs: 6509, 7087, 11145, 19129

Aglaia simplificolia
Meliaceae
LR/nt
Brunei, India, Indonesia (Kalimantan, Sumatra), Laos, Malaysia (Peninsular Malaysia, Sabah, Sarawak), Thailand
A widespread species found in the understorey of many different forest types. Habitat loss could pose a threat.
Assessor: Pannell, C.M.
Refs: 6509, 7087, 11145, 19129

Aglaia smithii
Meliaceae
VU A1c
Indonesia (Irian Jaya, Lesser Sunda Is., Moluccas, Sulawesi), Philippines
A small, locally common tree found in lowland primary and coastal forests. Habitat destruction poses a threat to the species. It is used for poles in Irian Jaya and for temporary construction in the Philippines.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

Aglaia speciosa
Meliaceae
VU A1c
Indonesia (Kalimantan, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah)
Found between 5 and 2200m, this tree of primary and secondary forest is threatened by habitat destruction.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

Aglaia squamulosa
Meliaceae
LR/nt
Indonesia (Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Philippines
This widespread tree is found in primary and secondary forest up to 2000m. Loss of habitat is a potential threat to the species.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

Aglaia subcuprea
Meliaceae
LR/nt
Indonesia (Irian Jaya), Papua New Guinea (Bismarck Archipelago, Papua New Guinea)
A tree of primary and secondary forest up to 2570m, often in periodically inundated areas. The main potential threat to the species is habitat destruction. The Solomon Islands specimen might be a new undescribed species.
Assessor: Pannell, C.M.
Refs: 6509, 11145, 19129

Aglaia subsesilis
Meliaceae
VU A1c
Malaysia (Sabah, Sarawak)
This species is confined to primary forest between 430 and 840m in Sabah and Sarawak. It is threatened by habitat loss.
Assessor: Pannell, C.M.
Refs: 6509, 19129

Aglaia tenuicaulis
Meliaceae
VU A1c
Brunei, Indonesia, Malaysia (Peninsular Malaysia, Sabah), Philippines?, Singapore, Thailand
A variable species noted to be common in Peninsular Malaysia. Habitat loss is the main threat to this tree.
Assessor: Pannell, C.M.
Refs: 6509, 9199, 19129

Aglaia teysmanniana
Meliaceae
LR/nt
China, Indonesia (Irian Jaya?, Java, Kalimantan, Moluccas?, Sulawesi), Malaysia, Papua New Guinea?, Philippines, Thailand
A widespread tree of primary and secondary forest up to 1670m. Declines in habitat could pose a threat to this species. Collections from the Moluccas and New Guinea may represent a distinct species.
Assessor: Pannell, C.M.
Refs: 6509, 19129

Aglaia unifolia
Meliaceae
CR D1
Fiji
A small tree known only from the type collection taken in 1947 from a forest on the ridge between Mount Nanggaramambula and Mount Namama, Viti Levu. It is possibly extinct.
Assessor: Pannell, C.M.
Refs: 6509, 19129

Aglaia variisquama
Meliaceae
VU A1c
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A tree scattered throughout primary and secondary forest, *kerangas*, swamps and along rivers between 200 and 430m. Habitat loss is the main threat to the species.
Assessor: Pannell, C.M.
Refs: 6509, 19129

Aglaia vitiensis
Meliaceae
LR/nt
Fiji
This endemic species is found in both secondary and primary forests. Loss of habitat is a potential threat to the species.
Assessor: Pannell, C.M.
Refs: 6509, 19129

Aglaia yezermannii
Meliaceae
VU D2
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A small rheophyte, locally common but confined to riverine forest on granite soils, especially next to the deeper areas of fast-flowing stony rivers. It is known from only three localities.
Assessor: Pannell, C.M.
Refs: 6509, 19129
Agonandra laranthoides
Opiliaceae  VU C1
Honduras
A tree of open forest on dry lowland plains, frequently affected by fires.
Assessor: Nelson, C.
Refs: 13995

Agonandra macrocarpa
Opiliaceae  VU C2a
Costa Rica, Honduras
A species of low elevations, occurring in rocky thickets along streams. Fires are a frequent threat.
Assessor: Nelson, C.
Refs: 8100, 13995

Agrostis tachys coriacea
Euphorbiaceae  VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

Agrostis tachys hookeri
Euphorbiaceae  CR B1 +2c
Sri Lanka
A tree restricted to lowland wet evergreen forest in south-west Sri Lanka. During the extensive National Conservation Review forest surveys, only four individuals were found at a single locality in Ratnapura District.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 17195, 19112

Ailanthus altissima var. tanakai
Simaroubaceae  EN A1a, B1+2ab
Taiwan
A Taiwanese form of a widely occurring and naturalised species. Populations, containing few mature individuals, are restricted to submontane forest in the northern part of the central mountain range. Declines in numbers have occurred because of habitat clearance for settlements and industrial plantations. No protection or conservation measures are in place.
Assessor: Pan, F.J.
Refs: 3295, 6469, 19050

Ailouea angulata
Lauraceae  EN B1+2c
Colombia
Known only from the type collected in 1933, this species is restricted to submontane forest in Boyaca.
Assessor: Calderon, E.
Refs: 7950, 7980, 19069

Ailouea macioana
Lauraceae  VU D2
Brazil (Goiás)
The type collection from Goiás is the only record of this species.
Assessor: World Conservation Monitoring Centre
Refs: 7950, 7980

Ailouea obscura
Lauraceae  EN B1+2c
Panama
Known only from a collection made in 1986, the species occurs on the southern Pacific slopes, south-east of Palmar north, on steep slopes of evergreen lowland rainforest.
Assessor: World Conservation Monitoring Centre
Refs: 15719

Aiphanes duquei
Palmae  VU B1+2c
Colombia
A montane rainforest species, endemic to an area of approximately 200 km² in the Cordillera Occidental. It is primarily found in Munchique and Farallones de Cali National Parks. Agricultural expansion and forest management activities are the principal causes of habitat loss.
Assessor: Bernal, R.
Refs: 19069, 19118

Aiphanes leiostachys
Palmae  EN B1+2c
Colombia
A species of broadleaved montane rainforest, occurring only in a few forest fragments in the Cordillera Central. Increasing pressure is felt from habitat conversion to agriculture and plantations.
Assessor: Bernal, R.
Refs: 19069, 19118

Aiphanes lindeniana
Palmae  VU B1+2c
Colombia
A widely distributed endemic occurring in the montane rainforest in the central and eastern cordilleras. The habitat is gradually losing way to increasing agriculture and forestry activities.
Assessor: Bernal, R.
Refs: 19118

Aiphanes verrucosa
Palmae  VU B1+2c
Ecuador
Restricted to the Andes of south-east Ecuador, this small palm tree is scattered in cloud forest and montane open forest between 2200 and 2800m. So far it is known only from two localities and one historical record. At least one of these populations has suffered from a severe reduction in numbers from fire and felling. The species is expected to occur in more inaccessible areas of south-east Ecuador.
Assessor: World Conservation Monitoring Centre
Refs: 19118
**Alangium circulare**  
Alangiaceae  
Malaysia (Sarawak)  
A small forest tree, apparently a component of *kerangas* forest, known only from Bukit Siol, Sempadi Forest Reserve and Gunung Pueh, 1st Division.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19017

**Alangium havilandii**  
Alangiaceae  
Brunei, Indonesia (Kalimantan), Malaysia (Sarawak)  
This lowland tree is relatively common but restricted to remaining peat swamp forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18327, 19017

**Alangium longiflorum**  
Alangiaceae  
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak), Philippines  
A tree of primary mixed dipterocarp forest, occurring up to 1200m. It is found occasionally in Sabah and Sarawak.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19017

**Albertia magna**  
Rubiaceae  
South Africa (Eastern Cape, KwaZulu-Natal)  
Largely occurring in KwaZulu-Natal but extending into the Eastern Cape, this species is found on the margins of small remnants of evergreen forest and on rocky sandstone outcrops, often near rivers and streams. It is vulnerable to the effects of fire and other habitat disturbances. Population numbers have almost certainly declined for these reasons. In KwaZulu-Natal, the species occurs in a number of protected areas, of which at least one is managed to exclude fire. In the Eastern Cape, there are populations in several protected areas, but the protected area system has virtually collapsed since 1994. Although legally protected, the bark is widely used as a source of traditional medicine. The tree is also commonly planted as an ornamental.  
**Assessor:** Hilton-Taylor, C. et al.  
**Refs:** 689, 7401, 19218

**Albizia berteriana**  
Leguminosae  
Cuba, Dominican Republic, Haiti, Jamaica  
An uncommon species of dry, evergreen forest found in eastern and central Cuba, Jamaica and Hispaniola.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 19149

**Albizia buntingii**  
Leguminosae  
Venezuela  
A small tree known only from the type locality in the Maracaibo basin.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Albizia burkartiana**  
Leguminosae  
Brazil (Paraná, Santa Catarina)  
A species of *Araucaria* woodland, found only in south-west Paraná and west Santa Catarina in the basins of Río Iguazu and Río Uruguay.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Albizia carrii**  
Leguminosae  
Papua New Guinea  
This endemic tree is so far known only from areas of monsoon forest in the Port Moresby region and Motupore Island.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19140

**Albizia edwardii**  
Leguminosae  
Argentina (Misiones), Brazil (Paraná, Santa Catarina, São Paulo)  
This species is restricted to Atlantic forest in the Atlantic-Uruguay River watershed, occurring in *Araucaria* forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Albizia ferruginea**  
Leguminosae  
Angola, Benin, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Nigeria, Senegal, Sierra Leone, Togo, Uganda  
A widespread and often common timber species which has suffered heavy exploitation. Mature individuals are scattered and becoming rare in places.  
**Assessor:** Hawthorne, W.  
**Refs:** 2362, 2773, 6718, 14667, 15790, 17408

**Albizia glabripetala**  
Leguminosae  
Brazil (Roraima), Guyana, Venezuela  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Albizia guillainii**  
Leguminosae  
New Caledonia  
A species restricted to remaining fragments of sclerophyllous forest. Occurrences are known from Nouméa, Pouembout and Koumac. The habitat is unprotected and severely threatened by fires, grazing and encroaching agriculture.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 4492, 10351, 12630

**Albizia leonardii**  
Leguminosae  
Haiti  
A small tree, localised in dry thickets in the north-west of Haiti.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Albizia malacophylla var. malacophylla**  
Leguminosae  
Eritrea, Ethiopia  
Restricted to wooded grasslands in the western highlands of Eritrea, Tigray and Welo, this variety
Species Summaries

**Albizia multiflora var. sagasteguii**
Leguminosae  VU D2  Peru
A tree known only from the type collection, near San Benito, in Cajamarca.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 18523

**Albizia obbiadiensis**
Leguminosae  VU B1+2c  Somalia
A distinct species of uncertain affinity. It is confined to the coast, where it occurs in bushland on sand. Habitat degradation is a threat.
Assessor: Thulin, M.
Refs: 7550, 8697, 18665

**Albizia plurijuga**
Leguminosae  EN B1+2c  Mexico
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 12985, 17165

**Albizia sulensis**
Leguminosae  VU A1cd, B1+2a, C2a, D2  South Africa (KwaZulu-Natal)
Endemic to a small area in the Hlabisa District of northern Zululand, this tree occurs in forest, riverine thicket and open woodland. It was once very common before the habitat became severely fragmented through agricultural activities and increasing settlement. Frequent fires are also a problem in parts of the range. Recent assessments of the population have revealed no evidence of recruitment. The bark is used as a source of traditional medicine and the timber is used for making furniture. The species may be confused with the introduced *A. lebbeck*, which has become naturalised along the northern KwaZulu-Natal coast.
Refs: 689, 7401, 16730, 19218

**Albizia tanganyicensis ssp. adamositorum**
Leguminosae  VU B1+2c  Kenya
A rare endemic to central Kenya, occurring in open woodland on rocky domes or river banks. Declines in the extent of the habitat have been caused by cutting and changing land use. The population in Meru National Park is protected. The Plant Conservation Programme in Kenya is managing living collections and seed stocks.
Assessor: World Conservation Monitoring Centre
Refs: 6396, 12067, 17859

**Albizia vaughanii**
Leguminosae  CR D1  Mauritius
The largest population of just six individuals occurs in the Tamarind Falls Gorge and another single tree is known from lowland forest in Yemen. Natural regeneration appears to be non-existent. Two individuals have been introduced into Mondrain Nature Reserve.
Assessor: Page, W.
Refs: 1411, 9120, 16426

**Alectryon macrococcus var. auwahienensis**
Sapindaceae  CR D1  USA (Hawaii)
A variety confined to East Maui, where it once occurred in various forest types in Auwahi and Kanao Districts between 790 to 1070m. The population size was reported to be large in the first half of the century but has subsequently declined to about nine individuals within 29ha of private and state-owned ranchland. Trees are protected from damage by cattle but the population suffers from an infestation of the black twig borer. The species as a whole is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19087

**Alectryon macrococcus var. macrococcus**
Sapindaceae  EN C2a  USA (Hawaii)
This variety has been recorded from various lowland forest types in the Waianae and Ko’olau Mountains on Oahu, in Waimea Canyon and Na Pali Coast State Park on Kauai, on Molokai and on the Honokowai Ditch Trail on West Maui. Oahu holds the largest populations, totalling about 400 plants. Fewer than 100 plants exist on Kauai and only a very few plants are known from the other islands. It has disappeared from parts of its former range and populations continue to be affected by insect infestations, grazing feral ungulates, fire and competition with introduced plants. It is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19087

**Alectryon ramiflorus**
Sapindaceae  EN B1+2c  Australia (Queensland)
Occurring in rainforest in Childers District on the southern coast of Queensland, the species is threatened because of habitat clearance. Only a single population of about 20 plants is known to be relatively well protected within a state forest.
Assessor: World Conservation Monitoring Centre
Refs: 4246, 17200

**Alectryon repandodentus**
Sapindaceae  VU B1+2c  Australia, Papua New Guinea
A small tree of scrub and savanna, only known from the Port Moresby region and Motupore Island in Papua New Guinea and Murray Island in Australia.
Assessor: World Conservation Monitoring Centre
Refs: 19140

**Alf oiroa hondurensis**
Juglandaceae  VU B1+2abcde  Honduras
This endemic tree occurs in mixed forest at high elevations. Population numbers are low and the habitat is in continuing decline. Some populations occur within protected areas.
Assessor: Nelson, C.
Refs: 14487

**Alf oiroa mexicana**
Juglandaceae  VU B1+2c  Mexico
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 10792, 14487
**Allanblackia stuhlmannii**

Guttiferae  VU B1+2c

Tanzania

This tall tree may be found in some abundance in moist upland forest only in eastern Tanzania. It is an important source of oils and timber.

*Assessor:* Lovett, J. & G.P. Clarke

*Refs:* 3356, 10961, 11449

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**Allanblackia ulugurensis**

Guttiferae  VU B1+2c

Tanzania

A cloud forest species found in good numbers in the North Udzungwa, Nguru Mountains and Uluguru Mountains.

*Assessor:* Lovett, J. & G.P. Clarke

*Refs:* 3356, 7089

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**Allantospermum borneense var. rostratum**

Ixonanthaceae  EN B1+2c

Malaysia (Sabah)

This enormous tree, sometimes reaching heights of 90m, is so far known only from ultramafic soils around Sandakan and Lahad Datu. Populations in localities to the south of Telupid have has most probably disappeared.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 19017, 19026

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**Allezietella rubra**

Rubiacae  VU D2

Viet Nam

Endemic to Viet Nam, the species is confined to a single locality in Lam Dong Province (Lac Duong) in the south.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 848, 11530

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**Allenanthus hondurensis**

Rubiacae  VU C2a

Honduras, Mexico

A species occurring disjunctly, with populations in Mexico and Honduras. The species is found in deciduous forest in the Caribbean lowlands in Honduras.

*Assessor:* Nelson, C.

*Refs:* 4974, 13995

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**Alexis cauliflora**

Violaceae  VU A1c, B1+2c

Ghana, Nigeria

A small tree with a disjunct, Guinea-wide distribution. It is confined to areas of wet evergreen forest. Few records of it appear to exist. Extensive logging, mining and clearing of the forest for cultivating crops have caused considerable declines in the habitat.

*Assessor:* Hawthorne, W.

*Refs:* 1577, 8854, 12061

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**Alexis obanensis**

Violaceae  VU B1+2c

Cameroon, Nigeria

A rarely recorded small tree of the violet family. It is known from the contiguous forest area covered by the Oban Division of the Cross River National Park in Nigeria and Korup National Park in Cameroon. Areas outside the parks have been heavily deforested and cleared for agriculture and commercial crops.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 2773, 4977, 11504

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**Allophys agabala**

Sapindaceae  VU D2

Democratic Republic of Congo

A species restricted to areas of gallery forest in Ubangi-Uele.

*Assessor:* Ndjele, M.B.

*Refs:* 17185, 17951

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**Allophys aldabrius**

Sapindaceae  VU D2

Seychelles (Aldabra)

A small tree or shrub which occurs on most of the islands making up Aldabra, Assumption, Cosmoledo and Astove. It is a constituent of inland mixed scrub. Aldabra is protected as a Strict Nature Reserve. Assumption has experienced strip-mining for phosphate or guano and the other islands have been cleared to some degree for the establishment of coconut and *Casuarina* plantations.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 19027, 19062

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**Allophys chirindensis**

Sapindaceae  VU D2

Mozambique, Zimbabwe

Existing information suggests this species is endemic to Chirinda forest in Zimbabwe and the adjacent Espungabera forest in Mozambique. This area is very restricted (6km²) and, although it has been disturbed in the past by logging activities, it is now well protected.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 2044, 6725, 15360, 17335

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**Allophys hispidus**

Sapindaceae  CR B1+2c

Sri Lanka

A tree of lowland wet evergreen forest, endemic to south-west Sri Lanka. The species occurred in a single plot in Sinharaja Biosphere Reserve in the 1980s. However, it did not turn up during the extensive National Conservation Review forest surveys, suggesting that it is extremely rare or possibly extinct.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 9176, 17195, 19112

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**Allophys marquesensis**

Sapindaceae  DD

French Polynesia (Marquesas Is.)

A shrub or small tree recorded from Fatu Hiva, Hiva Oa, Tahuata and Ua Huka.

*Assessor:* Florence, J.

*Refs:* 14513

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**Allophys pachyphillus**

Sapindaceae  VU B1+2c

Jamaica

A rare bushy tree confined to highland areas of woodland on limestone in the parishes of Manchester and St Ann.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 401, 7980

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**Allophys rapensis**

Sapindaceae  DD

French Polynesia (Tubuai Is.)

This species is endemic to Rapa Iti.

*Assessor:* Florence, J.

*Refs:* 14513
**Allophylus rhodophyllus**
Sapindaceae
Yemen (Socotra)
A fairly common tree, found in areas of submontane woodland. It is under no immediate threat.
_Assessor:_ Miller, A.G.
_Refs:_ 2354, 19083

**Allophylus roigii**
Sapindaceae
VU B1+2c
Cuba
An uncommon shrub or small tree localised to a few sites in Pinar del Rio Province and the adjacent Isla de Pinos. This species formerly occupied a much larger area in western Cuba.
_Assessor:_ Areces-Mallea, A.E.
_Refs:_ 11403, 18485, 19149

**Allophylus zeylanicus**
Sapindaceae
VU A1c
Sri Lanka
A tree confined to the lowland wet evergreen forests of south-west Sri Lanka.
_Assessor:_ World Conservation Monitoring Centre
_Refs:_ 9176, 17195

**Allophylus zimmernannianus**
Sapindaceae
VU B1+2c
Kenya, Tanzania
A shrub or tree confined to the forest at 375m in the Shimba Hills in Kenya and to coastal forest patches in Tanzania.
_Assessor:_ Lovett, J. & G.P. Clarke
_Refs:_ 3356, 5654, 6396

**Alloschmidia glabrata**
Palmae
VU D2
New Caledonia
A localised species of north-eastern New Caledonia. It occurs in wet forest, often on schists or mica-schists. The edible heart is harvested locally.
_Assessor:_ Jaffré, T. _et al._
_Refs:_ 10351, 19118

**Alloxyylon brachycarpum**
Proteaceae
EN A2cd
Indonesia (Irian Jaya, Moluccas), Papua New Guinea
Confinement to Western Province in south Papua New Guinea and adjacent Digul District, Irian Jaya, extending into the Aru Islands, this tree is scattered in lowland rainforest and monsoon forest. The population around the Oromi River in Western Province, is a relatively restricted and confined to a fragile ecosystem, which under pressure from logging and destructive activities. It is expected that the population across the border into Irian Jaya is similarly threatened.
_Assessor:_ Eddowes, P.J.
_Refs:_ 19114, 19147

**Alluaudia procera**
Didiereaceae
LR/nt
Madagascar
A major component of dry scrub and forest in the extreme south of Madagascar, beyond the Tropic of Capricorn. The habitat type has been replaced by grassland over much of its range. The wood is useful and the species is a focus of silvicultural studies.
_Assessor:_ World Conservation Monitoring Centre
_Refs:_ 4628, 5651, 6161, 14208

**Alnus maritima**
Betulaceae
LR/nt
USA (Delaware, Maryland, Oklahoma)
A shrub or tree, known from widely disjunct populations, occurring at the edges of ponds, small streams or standing water. The current distribution is thought to reflect remnant populations of a more widespread Pleistocene or post-Pleistocene distribution.
_Assessor:_ World Conservation Monitoring Centre
_Refs:_ 19033, 19163

**Aloe ballii**
Aloaceae
EN B1+2c
Mozambique, Zimbabwe
Not to be confused with _A. ballyi_ this species is confined to the cliffs in the lower Rusitu valley, south Chimanimani in Zimbabwe and adjacent Mozambique. The species is listed in *CITES Appendix II._
_Assessor:_ World Conservation Monitoring Centre
_Refs:_ 2044

**Aloe ballyi**
Aloaceae
VU B1+2c
Kenya, Tanzania
A rare tree aloe which smells strongly of rats. In Kenya it is confined to dense bush near Mwatate in the Taita Hills. It also occurs further south in Tanzania in the South Pare Mountains, Manyara escarpment, Ngubora River and Lake Eyassi. This dry bushland is extensively exploited for charcoal production. The species is listed in *CITES Appendix II._
_Assessor:_ World Conservation Monitoring Centre
_Refs:_ 6396, 12067

**Aloe comosa**
Aloaceae
DD
South Africa (Western Cape, Northern Cape)
A single-stemmed aloe confined to a small area just north of Clanwilliam, where it occurs in karroid scrub. Illegal collection and land degradation through overgrazing and expanding agriculture may have some impact on the species. No field assessments of the population status have been made. The species is included in *CITES Appendix II._
_Assessor:_ Hilton-Taylor, C. _et al._
_Refs:_ 689

**Aloe eminens**
Aloaceae
LR/nt
Somalia
A tree aloe which was seen in considerable numbers in 1995, but continues to be threatened by the destruction of the habitat to which it is confined in northern Somalia. The species is listed in *CITES Appendix II._
_Assessor:_ Thulin, M.
_Refs:_ 18665

**Aloe heleneae**
Aloaceae
CR D1
Madagascar
An arborescent aloe, endemic to southern Madagascar, where two or three populations are known to occur in thorny bush on sandy shores in the Fort Dauphin region. Each population consists of less than 10 adult individuals. No regeneration has been observed. The species is listed in Appendix I of *CITES._
_Assessor:_ World Conservation Monitoring Centre
_Refs:_ 19205
Aloë khamiesensis  
Aloaceae  

South Africa (Western Cape, Northern Cape)  
A single-stemmed aloë with a fairly restricted distribution in the mountainous areas ofNamaqualand and from near Calvina. At some localities, the number of plants has declined markedly as a result of unscrupulous collection. However, it is not clear what affect this has had on the overall population. The species is listed in *CITES Appendix II.  
Refs: 689, 19218

Aloëpillansii  
Aloaceae  

CR A2b, B1 +2c  
Namibia, South Africa (Northern Cape)  
Growing up to 10m, this aloë is largely confined to an intensely hot and arid area in the Richtersveld in the Northern Cape. There are records suggesting the species extends as far north as Brandberg in Namibia, but these need confirmation. A serious decline in the population has reduced the numbers to less than 200 individuals. There is no recruitment and the older plants are dying. There is evidence of baboons and porcupines gnawing the stems in up to a third of the population. The impact of goats, donkeys and plant collectors may also be detrimental. It has been suggested that this species, along with *A. dichotoma* and *Packypodium namaquanum*, represents a keystone in the ecosystem, being one of the few perennial plants able to tolerate the conditions and provide an important source of shelter, nectar, food and moisture, especially to the avifauna. It is listed in *CITES Appendix I.  
Refs: 689, 19141, 19218

Aloë ramassissima  
Aloaceae  

VU C2a, D2  
Namibia, South Africa (Northern Cape)  
A bushy aloë which is doubtfully distinct from *A. dichotoma*, except that the main stem rarely exceeds 60cm. It is confined to desert mountainsides and arid ravines in the Richtersveld of the Northern Cape and southern Namibia. Some localities are affected by mining activities and overgrazing by livestock. Limited field experience suggests there are few signs of regeneration. The species is listed in *CITES Appendix I.  
Refs: 689, 19218

Aloë suzannae  
Aloaceae  

CR D1  
Madagascar  
An arborescent aloë confined to thorny bush on sandy shores in the Ambosasa region and Iampedolo in south and south-west Madagascar. Only a few adult individuals are known in each population and there is no evidence of regeneration. The species has been cultivated from wild seed, but fewer than six reared plants exist in nurseries in Madagascar. The species is listed in *CITES Appendix I.  
Assessor: World Conservation Monitoring Centre  
Refs: 19205
Alseodaphne paludosa
Lauraceae
Malaysia (Peninsular Malaysia)
Confined to the swamp forests of Selangor and Perak, the species is known only from a few collections. It is threatened by felling, but there is hope that the species receives a degree of protection within permanent forest reserves.
Assessor: Chua, L.S.L.
Refs: 17140, 19073, 19182

Alseodaphne rugosa
Lauraceae
China (Guangdong - Hainan)
Restricted to a small area of dense forest in Qingzhou and Baoting Counties on Hainan Island, the species is exposed to the same levels of harvesting as A. hainanensis.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Almithia longipes
Palmae
Fiji
A monotypic genus, restricted to Taveuni, Vanae Levu. Populations occur on ridges and steep slopes in moist forest. The habitat suffers some pressure from increasing agriculture and forestry activities.
Assessor: Fuller, D.
Refs: 19118

Alsodeiopsis schumannii
Icacinaceae
Tanzania
Endemic to eastern Tanzania, this species is confined to areas of upland moist evergreen forest in the Usambara, Uluguru and North Udzungwa Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 18145

Alstonia annamensis
Apocynaceae
Viet Nam
To date this tree has been collected only three times from a single locality of dry montane forest.
Assessor: Sidiyasa, K.
Refs: 17692, 19046

Alstonia beatrixis
Apocynaceae
Indonesia (Irian Jaya)
Known only from the type locality, this small tree is found in open woodland on Waigeo Island, where it is locally common.
Assessor: Sidiyasa, K.
Refs: 14811, 19046

Alstonia breviflora
Apocynaceae
Papua New Guinea
Collected only three times, the species occurs in secondary and primary montane forest.
Assessor: World Conservation Monitoring Centre
Refs: 17692, 19046

Alstonia marquisensis
Apocynaceae
French Polynesia (Marquesas Is.)
Populations occur on Fatu Hiva, Hiva Oa, Nuku Hiva, Tahuata and Ua Huka.
Assessor: Florence, J.
Refs: 14513

Alstonia penangiana
Apocynaceae
Malaysia (Peninsular Malaysia)
This species is known from only two collections from Penang Island, where it is found in primary and disturbed forest.
Assessor: Sidiyasa, K.
Refs: 17692, 19046

Alstonia rubiginosa
Apocynaceae
Papua New Guinea
Endemic to Papua New Guinea, this tree has been collected twice in areas of primary and secondary montane forest.
Assessor: World Conservation Monitoring Centre
Refs: 17692, 19046

Alvaradoa jamaicensis
Simaroubaceae
Jamaica
The species is uncommon and local in woodlands and thickets on rocky limestone in the central and north-west parishes.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Alyxia taiwanensis
Apocynaceae
Taiwan
A single small population is confined to Chingshan in the centre of the island, where it occurs in dry open forest at 1100m. The area is given no protection and is somewhat threatened by increasing settlement. Regeneration appears to be poor.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 3295, 6469, 19050, 19051

Amanoza bracteosa
Euphorbiaceae
Côte d’Ivoire, Ghana, Liberia, Sierra Leone
A species found in swamp forest or along stream banks in wet evergreen forest. It occurs in Ankasa Game Production Reserve, along with A. strobilacea, in Ghana, but is too rare to be recorded in forest inventories. Although it is common on parts of Mount Nimba in Liberia, the forest has been cleared extensively by mining operations and by the effects of an increasing population requiring land for farming.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Amanoza strobilacea
Euphorbiaceae
Angola (Cabinda), Cameroon, Ghana, Liberia
This species is restricted largely to swampy areas within lowland evergreen rainforest. The general loss of its habitat, because of commercial forestry activities and mining, has continued at a considerable rate.
Assessor: Hawthorne, W.
Refs: 3614, 9212, 12061
**Amburana acreana**
Leguminosae  
VU A1d+2d  
Bolivia, Brazil (Acre, Mato Grosso, Rondônia), Peru  
Formerly abundant in non-flooded forest, this species has been heavily exploited for its wood, used for making luxury furniture. In Rondônia the number of sawmills, which principally process *A. acreana*, increased eightfold between 1975 and 1982. The species is now on the official list of threatened species compiled by *IBAMA* in 1992. The taxonomic status of the genus is not consolidated, there being confusion between this and *A. cearensis*. 
Assessor: Varty, N. & D.L. Guadagnin  
Refs: 4870, 8815, 15478, 15539, 16123

**Amburana cearensis**
Leguminosae  
EN A1c+d+2cd  
Argentina, Bolivia, Brazil, Paraguay, Peru  
A frequent tree of *caatinga*, occasional in the Andes, becoming rarer in deciduous forest further south into Argentina. An important timber source, all stands of large trees are being or have been destroyed, previously through mahogany logging and now through selective logging. Small trees grow around granite outcrops where they are safe from commercial exploitation. Regeneration appears to be poor where adequate management is not in place. The taxonomic status of the genus is not consolidated, there being confusion between this species and *A. acreana*. 
Assessor: Americas Regional Workshop  
Refs: 1262, 11936, 12268, 12837, 13295, 13947, 19170, 19179

**Amentotaxus argotaenia**
Taxaceae  
VU A1c  
China (Fujian?, Gansu, Guangdong, Guangxi, Hubei, Hunan, Jiangsu?, Jiangxi, Sichuan, Xizang, Zhejiang?), Viet Nam  
The status of this widely occurring forest species is affected by slow growth rates, infrequent regeneration, poor seed dispersal and predation by rats. Forest clearing and habitat modification have also contributed to population declines. 
Assessor: SSC Conifer Specialist Group  
Refs: 374, 11191

**Amentotaxus argotaenia var. brevifolia**
Taxaceae  
VU A1c  
China (Guizhou)  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 11038, 13041

**Amentotaxus assumica**
Taxaceae  
VU A1c, D2  
China, India (Arunachal Pradesh)  
Two collections are known from moist deciduous forest in the Delei valley and a valley in the Dafla Hills in India, and another single collection has been made from Medog in China. Deforestation has occurred extensively in the area. 
Assessor: SSC Conifer Specialist Group  
Refs: 374, 5759, 13041

**Amentotaxus formosana**
Taxaceae  
CR C2a, D1  
Taiwan  
The species was previously recognised as a variant of *A. argotaenia*. Populations are small and restricted to four localities of cloud forest in the Hengshan Peninsula:

**Amentotaxus poilanei**
Taxaceae  
VU A1c, B1+2c  
Viet Nam  
A montane species, only known from Kon Tum Province in Ngoc Linh Nature Reserve. 
Assessor: SSC Conifer Specialist Group  
Refs: 848, 1491, 11191

**Amentotaxus yunnanensis**
Taxaceae  
EN A1c  
China (Guizhou?, Yunnan), Viet Nam  
Confined to moist deciduous forest on limestone hills, remaining populations are small and threatened. The forest habitat is being extensively cleared. The population in Viet Nam is confined to Hoang Lien Son Nature Reserve and is considered to be in a critical state. 
Assessor: SSC Conifer Specialist Group  
Refs: 848, 1739, 1818, 11847, 13041, 15357

**Amesiodendron chinense**
Sapindaceae  
LR/nt  
China, Indonesia (Sumatra), Laos, Malaysia (Peninsular Malaysia), Viet Nam  
A genus, probably monotypic, which is widely occurring in primary rainforest. In Viet Nam, it is a dominant component of some forest localities and has been observed to regenerate well, although population reductions have occurred. In China the species, recognised under the synonym *A. tienlinensis*, is restricted to limestone areas in the Dayao Mountains, Tianlin and Leye Counties in Guangxi and Luodian, Wangmo and Zhenfeng Counties in Guizhou. A valuable timber is harvested from the tree and in some places is overexploited. 
Assessor: World Conservation Monitoring Centre  
Refs: 848, 7673, 11847, 15357, 18389

**Amoora dasyclada**
Meliaceae  
VU A1c  
China (Guangdong - Hainan, Yunnan), Viet Nam  
A large evergreen tree of lowland tropical monsoon forest and rainforest, known from occurrences in Menla, Menhai and Jinhong in south Yunnan and Hainan Island in China, and from populations in the northern half of Viet Nam. The levels of exploitation both of the tree as a timber and of the habitat in general have caused population declines throughout the species range. 
Assessor: Sun, W.  
Refs: 1818, 11847, 15357, 19055

**Amphitecna isthmica**
Bignoniaceae  
VU A2c  
Colombia, Costa Rica, Panama  
Occurring in lowland forest, the species extends in range from Costa Rica to the Urabá region of north-west Colombia. In Panama, populations are small and scattered principally in the humid forests on the Pacific side, few collections coming from the Atlantic slopes. In
Costa Rica populations are also largely confined to the Pacific side. Most parts of the range are experiencing moderate to high human impact.

**Assessor:** Mitre, M.
**Refs:** 7980, 16772

**Amphiteca molinae**  
Bignoniaceae  
EN C1  
El Salvador, Honduras, Nicaragua  
A cloud forest tree, occurring in a habitat which is rapidly declining through deforestation.

**Assessor:** Nelson, C.  
**Refs:** 730, 3917, 7980, 13316, 13995, 16973

**Amphiteca sessilifolius**  
Bignoniaceae  
VU C1  
Costa Rica, Panama  
A cloud forest tree, distributed widely from mid to high elevations in Costa Rica but only in a restricted area of high forest in Chiriqui and Bocas del Toro in Panama near the Costa Rica border. Populations are relatively sparse, with few juvenile individuals. Most of the high-altitude localities are contained within protected areas, but outside these populations are highly susceptible to clearing and encroaching agriculture.

**Assessor:** Mitre, M.  
**Refs:** 7980, 16772

**Amphiteca spathicalyx**  
Bignoniaceae  
CR B1+2b  
Panama  
A single population is known. It occurs within lowland evergreen forest between 800 and 900m in the Altos de Campana National Park. Attempts to locate it outside of the park have been unsuccessful.

**Assessor:** Mitre, M.  
**Refs:** 5335, 7980, 13316, 16772

**Amygdalus korshinskyi**  
Rosaceae  
VU A1a  
Turkey  
This species is scattered in middle elevations in dry areas. Population numbers have been observed to decline through the effects of growing settlement and agriculture, pests and diseases and industrial development.

**Assessor:** Güner, A.  
**Refs:** 3489, 19165

**Amygdalus trichagygdalis var. elongata**  
Rosaceae  
LR/nt  
Turkey  
Occurring within a restricted area of montane dry scrub and woodlands, the species is under some threat from grazing and cutting.

**Assessor:** Güner, A.  
**Refs:** 3489, 19165

**Amyris polymorpha**  
Rutaceae  
VU D2  
Cuba  
This endemic tree is only found in the remaining forests of Cabo Cruz in Granma Province of south-eastern Cuba. Its habitat is degraded in places.

**Assessor:** Areces-Mallea, A.E.  
**Refs:** 11403, 18485, 19149

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**Anacolosa densiflora**  
Oleaceae  
EN B1+2c  
India (Kerala, Tamil Nadu)  
A large tree, collected three times from separate localities of lowland evergreen rainforest at the southern end of the Western Ghats.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Anaxagorea costaricensis**  
Annonaceae  
EN C1  
Costa Rica, Honduras  
A rare species of wet lowland forest.

**Assessor:** Nelson, C.  
**Refs:** 13995

**Andira galeottiana**  
Leguminosae  
VU A1c  
Mexico (Chiapas, Oaxaca, Veracruz)  
A canopy tree of remnant rainforest in the Gulf region of Mexico.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5993, 15791, 19124

**Angylocalyx braunii**  
Leguminosae  
VU B1+2b  
Kenya, Tanzania  
A species restricted to patches of riverine forest and moist forest. Populations occur in the Tana River area and Kwale in south-east Kenya and in eastern Tanzania.

**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 6396, 10961

**Aniba ferrea**  
Lauraceae  
VU B1+2c  
Brazil (Amazonas)  
Restricted to high non-flooded forest, this tree is endemic to the vicinity of Manaus, where increasing human settlement is a serious threat.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7950, 7980

**Aniba ferruginea**  
Lauraceae  
VU D2  
Venezuela  
Known only from the type collection, the species appears to be confined to high, non-flooded forests in the Venezuelan Amazon.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7950, 7980

**Aniba intermedia**  
Lauraceae  
VU B1+2c  
Brazil (Bahia)  
This species, endemic to Bahia, is fairly wide-ranging but confined to an area which continues to be deforested.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7950, 7980

**Aniba novo-granatensis**  
Lauraceae  
VU B1+2c  
Colombia  
A high-altitude species, confined to Cauca and Meta.

**Assessor:** Calderon, E.  
**Refs:** 7950, 7980, 19069
Aniba pedicellata
Lauraceae
Brazil (Rio de Janeiro)
A species known solely from a type specimen collected in 1938 from Rio de Janeiro.
Assessor: World Conservation Monitoring Centre
Refs: 7950, 7980

Aniba percoriacea
Lauraceae
Suriname
A species only recorded from the type collection, gathered at Tafelberg.
Assessor: World Conservation Monitoring Centre
Refs: 7950, 7980, 19196

Aniba rosaeodora
Lauraceae
Brazil (Amapá, Amazonas, Pará), Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Venezuela
Populations throughout the species range have seriously declined because of rosewood oil extraction. Substantial wild stands are believed to exist still in areas which are unlikely to be exploited, but where there has been exploitation the population is devoid of mature trees and significant signs of regeneration are absent. Trees of all sizes are harvested indiscriminately, the whole tree and its roots being destroyed. The sole producer at present is Brazil, although the species was wiped out through exploitation over large areas in French Guiana between 1910 and 1930. Harvesting is costly and is taking place in more and more remote locations concentrated around Amazon tributaries, principally in Amazonas and Pará. Mobile distillation factories have also moved deep into the forest and trees. Levels of exploitation have significantly declined with increased use of synthetic oils, the current world market resting at about 100 tonnes pa. Silvicultural studies are being carried out by *FCAP with the assistance of UK institutions.
Assessor: Varty, N.
Refs: 4506, 7950, 8815, 12109, 15539, 15714, 19069, 19077, 19095, 19179

Aniba santalodora
Lauraceae
Brazil (Amazonas)
This species is restricted to a small area of high Amazon forest and secondary growth.
Assessor: World Conservation Monitoring Centre
Refs: 7950, 7980

Aniba vaupesiana
Lauraceae
Colombia
Known only from the type specimen, this species is confined to Vaupés.
Assessor: World Conservation Monitoring Centre
Refs: 7950, 7980

Anisophyilea apetala
Anisophylleaceae
Malaysia (Peninsular Malaysia)
A tree of moist lowland and hill forest.
Assessor: Chua, L.S.L.
Refs: 19073

Anisophyilea cabole
Anisophylleaceae
São Tomé & Príncipe (São Tomé)
A tree or shrub, known from two sites towards the north-west of the island at altitudes of 1350 to 1410m. Populations appear to be healthy and regenerating. The species produces a good wood which has moderate value as a timber.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 19042, 19111

Anisophyilea chartacea
Anisophylleaceae
Malaysia (Sarawak)
A tree known only from the type specimen collected in lowland mixed dipterocarp forest from Ulu Balleh in the Kapit District.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Anisophyilea cinnamomoides
Anisophylleaceae
Sri Lanka
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Anisophyilea curtisii
Anisophylleaceae
Malaysia (Peninsular Malaysia)
Occurring in rainforest up to 260m, the most prominent threat to this species is the expansion of settlements.
Assessor: Chua, L.S.L.
Refs: 19073

Anisophyilea ferruginea
Anisophylleaceae
Brunei, Indonesia (Kalimantan), Malaysia (Sarawak)
A generally uncommon tree, occurring in mixed dipterocarp forest up to 600m. It is locally abundant in places.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Anisophyilea globosa
Anisophylleaceae
Malaysia (Sabah)
A tree of open secondary vegetation known only from its type locality at the edge of a steep gully in Bengkoka in the Kudat District.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Anisophyilea grandis
Anisophylleaceae
Malaysia (Peninsular Malaysia)
A species of lowland and hill rainforest up to 700m, threatened mainly by the expansion of settlements.
Assessor: Chua, L.S.L.
Refs: 19073

Anisophyilea impressinervia
Anisophylleaceae
Malaysia (Sabah)
Known only from the type collection from Bengkoka in
the Kudat District, this tree occurs in secondary lowland forest at an altitude of 50m.
Assessor: World Conservation Monitoring Centre

Refs: 19017

Anisoptylea nitida
Anisoptyleaceae VU D2
Malaysia (Sabah, Sarawak)
This species is highly localised and known only from Kuala Penyu in south-west Sabah and the Niah area of north-east Sarawak, where it grows in lowland secondary or disturbed mixed dipterocarp forest on sandy soils.
Assessor: World Conservation Monitoring Centre

Refs: 19017

Anisoptylea reticulata
Anisoptyleaceae VU D2
Malaysia (Peninsular Malaysia)
This species is known from only one collection on a ridge top in hill forest at 180m, Endau State Park, Johore.
Assessor: World Conservation Monitoring Centre

Refs: 8464, 19073

Anisoptylea rhomboidea
Anisoptyleaceae VU A1c
Indonesia (Kalimantan), Malaysia (Sarawak)
A shrub or tree of lowland mixed dipterocarp forest, endemic to west Borneo. It is restricted to the 1st Division of Sarawak and Kalimantan.
Assessor: World Conservation Monitoring Centre

Refs: 19017

Anisoptera costata
Dipterocarpaceae EN A1cd+2cd
Brunei, Cambodia, Indonesia (Java, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Myanmar, Philippines, Singapore, Thailand, Viet Nam
A large tree of semi-evergreen dipterocarp, evergreen and humid lowland forest, which occurs on premium land for agriculture. In some areas it is an exceptionally rare tree; in the Philippines only a single collection exists. It produces a major commercial timber, used for general construction, veneer and plywood. Some populations occur within reserves.
Assessor: Ashton, P.

Refs: 7673, 9169, 9199, 10013, 13857, 14573

Anisoptera curtissii
Dipterocarpaceae CR A1cd+2cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Thailand
A species which occurs in mixed dipterocarp forest, mainly on coastal hills and inland ridges. The wood is utilised. A. curtissii may hybridise with A. costata.
Assessor: Ashton, P.

Refs: 5550, 7673, 9169, 91387, 13857, 14573, 18243

Anisoptera grossivenia
Dipterocarpaceae EN A1cd+2cd
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A lowland dipterocarp forest species found growing on sandy clay soils. Its timber is often used for plywood.
Assessor: Ashton, P.

Refs: 11295, 13857, 14573

Anisoptera laevis
Dipterocarpaceae EN A1cd+2cd
Brunei, Indonesia (Sumatra), Malaysia (Sabah, Sarawak), Singapore
A timber tree which is widespread and recorded in a number of proposed reserve sites. The conservation status of the tree results from land conversion and destruction over the past century.
Assessor: Ashton, P.

Refs: 7673, 7875, 9169, 9199, 13857

Anisoptera marginata
Dipterocarpaceae EN A1cd+2cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A species of mixed peat-swamp forest and heath forest. The timber is used for house construction.
Assessor: Ashton, P.

Refs: 7673, 9169, 13857

Anisoptera megistocarpa
Dipterocarpaceae CR A1cd+2cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore
A large tree scattered throughout mixed dipterocarp forest on well-drained soil. The habitat has been widely cleared and destroyed.
Assessor: Ashton, P.

Refs: 5550, 7673, 9169, 9199, 13857

Anisoptera reticulata
Dipterocarpaceae CR A1cd+2cd, B1
Brunei, Malaysia (Sabah, Sarawak)
A species of mixed dipterocarp forest, where it is threatened by habitat loss.
Assessor: Ashton, P.

Refs: 7673, 9169, 13857

Anisoptera scaphula
Dipterocarpaceae CR A1cd+2cd
Bangladesh, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam
A species scattered in semi-evergreen and evergreen dipterocarp forest. Regeneration is poor.
Assessor: Ashton, P.

Refs: 5550, 7673, 9169, 13857, 19093

Anisoptera thurifera ssp. thurifera
Dipterocarpaceae CR A1cd+2cd
Philippines
This variety is found growing in the evergreen and semi-evergreen dipterocarp forests. The species, as a whole, represents the only dipterocarp which readily reinvades cultivated land. The conservation status of the species is based upon the rate of habitat loss.
Assessor: Ashton, P.

Refs: 7673, 9169, 13857, 14573

Annamocarya sinensis
Juglandaceae EN B1+2cd
China (Guangxi, Quzhou, Hunan, Yunnan), Viet Nam
Occurring in small groves or as isolated individuals, this relict species is recorded from a few forest localities in north-west Guangxi, south-east Guizhou, south-east Yunnan in China, and from a few localised populations in north and west Viet Nam. In China the species has been difficult to locate at recorded localities and the
habitat has declined considerably with extensive agriculture and logging. It is the only member of the genus.

**Assessor:** Sun, W.
**Refs:** 848, 1818, 11530, 11847, 15357, 19055, 19061

**Anneslea fragrans var. lanceolata**

Theaceae  
VU A1a, D1  
Taiwan

A species with scattered populations occurring on the eastern hills of the Hengchun Peninsula. There are a few protected localities in Kenting National Park. Elsewhere the species habitat is under some pressure from the establishment of industrial plantations and increasing land settlement and agriculture.

**Assessor:** Lu, S.Y. & F.J. Pan  
**Refs:** 3295, 19050, 19053

**Annona asplundiana**

Annonaceae  
VU D2  
Peru

A species, so far, known only from the type specimen collected from lowland Amazon forest in the department of Loreto.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Annona atabapensis**

Annonaceae  
VU D2  
Venezuela

No collections have been made of this species since it was first discovered by Humboldt and Bonpland in flooded riparian forest on the Río Atabapo in Amazonas, early in the 19th century.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19128

**Annona cristalensis**

Annonaceae  
VU B1+2c  
Cuba

A rare tree, up to 8m tall, found in montane shrubwoods and forests on ferritic soils derived from serpentine bedrock in Sierra del Cristal, Sierra de Micara and the upper Toa area in north-eastern Cuba.

**Assessor:** Arecce-Mallea, A.E.  
**Refs:** 16327, 18485, 19149

**Annona deminuta**

Annonaceae  
VU D2  
Peru

At present the species is known only from the type collection taken from San Martin.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Annona dolichophylla**

Annonaceae  
VU D2  
Peru

Currently known only from the type collection, the species is found in lowland Amazon forest in the department of Loreto.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Annona ekmanii**

Annonaceae  
VU D2  
Cuba

A small tree locally confined to the serpentine plateau of Sierra de Nipe in north-eastern Cuba, where it occurs in montane shrubwoods and forests on ferritic soils.

**Assessor:** Arecce-Mallea, A.E.  
**Refs:** 11403, 18485, 19149

**Annona jamaicensis**

Annonaceae  
LR/nt  
Jamaica

The species is scattered in pasture margins and woodlands on limestone in the central parishes.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Annona praetermissa**

Annonaceae  
VU B1+2c  
Jamaica

The species is uncommon and confined to the St Andrew and St Thomas Parishes, where it occurs on wooded hillsides. Almost all the forest in these parishes is either severely degraded or destroyed.

**Assessor:** Bellingham, P.  
**Refs:** 401, 5653, 7980, 19116

**Annona spraguei**

Annonaceae  
VU A1c  
Panama

Known only from the centre and east of Panama, the species occurs in moist evergreen forest up to 1000m. The main populations are found within protected areas. Elsewhere the habitat is susceptible to clearance and logging.

**Assessor:** Mitré, M.  
**Refs:** 7272, 7980, 16772

**Annona trunciflora**

Annonaceae  
LR/nt  
Venezuela

Endemic to the Venezuelan Guyana, the species occurs in secondary forest and riparian forest in the upper reaches of the Río Parguaza in Bolívar and on Río Sipapo near the confluence with Río Orinoco in Amazonas.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19128

**Anodendron rhinosporum**

Apocynaceae  
CR B1+2c  
Sri Lanka

An extremely rare species scattered in lowland wet evergreen forest in south-west Sri Lanka. It was not found during the extensive National Conservation Review forest surveys.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195, 19112

**Anogeissus bentii**

Combretaceae  
EN B1+2e  
Yemen

One of the largest trees in Yemen. It occurs as ancient solitary individuals or in small groups, restricted to the large wadis which dissect the inhospitable limestone plateau of the Hadramaut in South Yemen. Regeneration is lacking in most areas.

**Assessor:** Miller, A.G.  
**Refs:** 19083
Anogeissus dhofarica
Combretaceae VU A1cd
Oman, Yemen
A common tree of deciduous escarpment woodland on the mountains extending from Dhofar in Oman to neighbouring Haif in Yemen. It also occurs as an outlier in Yemen in Ras Fartak. Trees near water-holes are severely damaged and in other areas grazing pressure is high, especially in Oman, where there has been a sharp rise in the population.
Assessor: Ghazanfar, S.A.
Refs: 16380

Anonidium usambarensense
Anonaceae EX Tanzania
A single collection from 1910 is the only record of this species. It occurred in the Usambar Mountains but has not been found again despite extensive botanical work in the area. The forest has suffered from the encroachment of agriculture and commercial forestry but is now the focus of a conservation programme.
Assessor: World Conservation Monitoring Centre
Refs: 3356, 9302

Anoplyxis klaineana
Rhizophoraceae VU A1cd Cameroon, Congo, Côte d'Ivoire, Ethiopia, Ghana, Liberia, Nigeria, Sierra Leone, Sudan
A timber species which occurs in some abundance especially in wetter evergreen forest. Habitat loss and exploitation are serious threats in most places. Seeds have poor viability and regeneration has been observed to be poor. The genus is monotypic.
Assessor: Hawthorne, W.
Refs: 2362, 2773, 6128, 6718

Anthodiscus chocoensis
Caryocaraceae VU C1 Colombia, Costa Rica, Panama
The species is known mainly from the relatively large and protected populations in Costa Rica. Elsewhere populations are small, scattered and show low recruitment. In Panama small populations are apparently confined to Darién National Park. There are also occurrences in the Chocó in Colombia. The wood is used both locally and commercially as fuel and timber.
Assessor: Mitre, M.
Refs: 7980, 10686, 14717, 16772

Anthodiscus montanus
Caryocaraceae EN B1+2c Colombia
An endemic to Boyacá.
Assessor: Calderon, E.
Refs: 4217, 7980, 19069

Anthonotha lebrunii
Leguminosae VU D2 Democratic Republic of Congo
Known only from one locality, this species occurs in part of the Forestier Central at Bambuti. Pressures exist from overcutting and agricultural expansion.
Assessor: Ndjele, M.B.
Refs: 7550, 17185, 17951

Anthonotha nigerica
Leguminosae VU A1c Democratic Republic of Congo, Nigeria
A small forest tree with an apparently disjunct distribution, occurring in the remaining forest in south-east Nigeria and also in DR Congo, where the extent of its occurrence is not at present known. In Nigeria the largest, if not only, intact population occurs in the Oban Division of the Cross River National Park. Deforestation in the region has been extensive.
Assessor: World Conservation Monitoring Centre
Refs: 4977, 11504

Anthonotha obanensis
Leguminosae VU B1+2c, D2 Nigeria
This distinctive species is recorded solely from the Oban Division of the Cross River National Park. The population is well protected but logging and conversion of land to agriculture are extensive in the surrounding area.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 4977, 7550, 11504

Anthonotha vigni
Leguminosae VU A1c, B1+2c Côte d'Ivoire, Ghana, Liberia, Sierra Leone
A species which is confined to riversides or swampy areas within lowland wet evergreen forest in Upper Guinea. Losses of this habitat through felling for timber, mining and planting of commercial species have been extensive.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Antidesma cruciforme
Euphorbiaceae LR/cd Malaysia (Peninsular Malaysia)
A montane forest species, occurring between 1000 and 1400m in Perak and Selangor. The forest in these mountain areas is generally protected.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Antidesma obliquinervium
Euphorbiaceae VU B1+2c Philippines
An endemic tree of Palawan, found in primary forests at low altitude. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

Antidesma pyrifolium
Euphorbiaceae VU A1c Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

Antidesma subovaleaceum
Euphorbiaceae VU B1+2c Philippines
Endemic to Palawan, the species is found in primary forests at low altitude.
Assessor: World Conservation Monitoring Centre
Refs: 4986
**Antirhea aromatica**  
_Rubiaceae_  
_Mexico (Veracruz)_  
Three populations of a few mature trees, exist in central Veracruz in deciduous thorn forest on karst hills near Jalcomulco and Apazapan. They are situated on relatively inaccessible slopes, but trees still appear to be cut for the wood, which is used in house construction. Natural regeneration is evident and the species is being grown from seed at the Botanic Garden in Xalapa.  
**Assessor:** Vovides, A.P.  
**Refs:** 7980, 10919, 19206

**Antirhea jamaicensis**  
_Rubiaceae_  
_Jamaica_  
A tree useful for its wood, found only occasionally in woodlands on limestone in moderately wet areas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Antirhea portoricensis**  
_Rubiaceae_  
_Puerto Rico_  
A tree of moist forests with a localised distribution in areas which have experienced habitat destruction.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7931, 7980, 17124

**Antirhea radiata**  
_Rubiaceae_  
_Cuba, Dominican Republic, Haiti_  
A tree of montane rainforest and submontane semi-deciduous forest, occurring in central and eastern parts of Cuba and in the province of Pinar del Rio, and also Hispaniola. The habitat of this species is under threat from felling.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 19149

**Antirhea sintenisii**  
_Rubiaceae_  
_Puerto Rico_  
A tree of moist forest with a localised distribution in areas which have been experiencing habitat destruction.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7931, 7980, 17124

**Antirhea tomentosa**  
_Rubiaceae_  
_Jamaica_  
Until 1975 the species was known only from the type specimen collected in thickets in Trelawny Parish in 1780. It was rediscovered in an area which was being rapidly cleared. It is not known whether the species has survived.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 7980

**Antrocaryon micraster**  
_Ancardiaceae_  
_Cameroun, Côte d’Ivoire, Democratic Republic of Congo, Ghana, Nigeria, Sierra Leone, Uganda_  
Scattered throughout semi-deciduous forests in tropical Africa, this emergent species is heavily exploited for its timber. It regenerates in canopy gaps and its fruit provides an important food source to the mammal community. It performs less well in burnt or heavily disturbed forests.  
**Assessor:** Hawthorne, W.  
**Refs:** 2362, 2773, 6128, 6718, 14667

**Aoranthene penduliflora**  
_Rubiaceae_  
_Tanzania_  
A shrubby species known from remaining forest patches largely existing within Forest Reserves. Populations are known from Pugu and Rondo Forest Reserves. These have both been heavily disturbed in the past by a range of human activities including logging and agriculture. Pugu is now part of an active conservation programme and the forest management activities in Rondo are discouraging local exploitation.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814

**Apeiba intermedia**  
_Tiliaceae_  
_Suriname_  
The species was described in 1925, based upon incomplete material from a single tree. It is possibly a hybrid of _A. glabra_ and _A. petonmo_.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6493, 7951

**Aphananxis cunningiana**  
_Meliaceae_  
_Philippines_  
A timber tree, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2072, 4919, 18088

**Apiopetalum velutinum**  
_Araliaceae_  
_New Caledonia_  
**Assessor:** Jaffré, T. _et al._  
**Refs:** 10351

**Apollonias barbujana ssp. barbujana**  
_Lauraceae_  
_Portugal (Madeira), Spain (Canary Is.)_  
In Madeira the species has a sporadic distribution in lowland forest and *laurisilva* up to 1000m. In some of the lower zones it is locally abundant, and parts of the range occur within the National Park of Madeira. There are pressures from grazing and burning throughout the island. A population also exists on Desertas Island in the Madeira Group.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19131

**Apollonias barbujana ssp. ceballosi**  
_Lauraceae_  
_Spain (Canary Is.)_  
Previously referred to as a distinct species, this cloud forest tree is confined to the island of Gomera. In the past the timber was heavily harvested. As a result, populations are now small and fragmented. The major threat at present comes from fire. The taxon is listed in government legislation of 1991.  
**Assessor:** Bahares, A. _et al._  
**Refs:** 451, 19022
Aporosa fusiformis
Euphorbiaceae
Sr Lanka
During the extensive National Conservation Review forest surveys, only two individuals were found at a single locality in the lowland rainforest of Kegalle District.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Aporosa bourdillonii
Euphorbiaceae
EN B1+2c
India (Karnataka, Kerala)
A poorly collected species, reported from a few scattered locations in lowland rainforest.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Aporosa cardiosperma
Euphorbiaceae
VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 4986, 5651

Aporosa elliptifolia
Euphorbiaceae
VU B1+2c
Philippines
A Palawan endemic, confined to forested slopes at low altitude. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986, 5651

Aporosa isabelina
Euphorbiaceae
LR/nt
Malaysia (Peninsular Malaysia)
A lowland rainforest species, confined to a restricted area in the Sungei Lebi Basin in south-east Kelantan.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Aporosa lanceolata
Euphorbiaceae
VU A1c
Sri Lanka
A tree confined to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

Apteroserma oblata
Theaceae
VU B1+2c
China (Guangdong, Guangxi)
First discovered in the 1960s, the species is thought to have become extinct in its original location on Mount Hewit, which has been cleared of forest. Further localities have been identified in Xinyi in Guangdong and Guping in Guangxi, where it occurs in the remaining forest below 600m. The genus is monospecific.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Aquilaria hirta
Thymelaeaceae
VU A1d
Indonesia (Sumatra), Singapore
A small tree occurring in lowland forest on hill slopes. The fungi-infected heartwood, characteristic of all members of the genus, has high commercial value in the production of incense, perfume and traditional medicine. Numerous trees are cut down, many uninfected, to harvest just a few kilogrammes of the diseased wood. The increase in levels of trade over the past decade has resulted in overexploitation throughout its range.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 19059

Aquilaria crassna
Thymelaeaceae
CR A1d
Cambodia, Laos, Thailand, Viet Nam
The red list category is largely based on the situation in Viet Nam, where the species is distributed sparsely but widely throughout the country in primary and secondary forest. Exploitation of the diseased wood for the perfume industry has resulted in population declines exceeding 80% over recent years. There is a strong indication that the same losses are occurring in the rest of Indo-China. Other parts of the plant are also widely used: the roots for incense, cosmetics and medicines and the bark for fibre.
Assessor: Nghia, N.H.
Refs: 848, 6646, 11530, 15357, 19060

Aquilaria cunningiana
Thymelaeaceae
VU A1d
Indonesia (Kalimantan, Moluccas), Philippines
A shrub or small tree of primary forest distributed in East Kalimantan, the Moluccas and the Philippines. The fungi-infected heartwood, characteristic of all members of the genus, has high commercial value in the production of incense, perfume and traditional medicine. Numerous trees are cut down, many uninfected, to harvest just a few kilogrammes of the diseased wood. The increase in levels of trade over the past decade has resulted in overexploitation throughout its range.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 19059

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Assessor: World Conservation Monitoring Centre
Refs: 9199, 19059
Aralia malabarica
Araliaceae  VU B1+2c
India (Kerala, Tamil Nadu)
An understory tree, known from sparse collections from submontane evergreen forest in the southern end of the Western Ghats.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Arapatella psilophylla
Leguminosae  VU B1+2c
Brazil (Bahia)
The species is endemic to areas of Atlantic forest in the south of the state.
Assessor: World Conservation Monitoring Centre
Refs: 19098, 19100

Araucaria angustifolia
Araucariaceae  VU A1cd+2cd
Argentina (Misiones), Brazil (Minas Gerais, Paraná, Rio de Janeiro?, Rio Grande do Sul, Santa Catarina, São Paulo), Paraguay
Paraná pine is the most important timber species in Brazil. Although an abundant species, it has undergone continuous decline in the extent of its occurrence through logging. The original extent of *Araucaria* forest, estimated at 200,000 km², is believed to have declined by more than 80% in the last century. In Rio Grande do Sul, for instance, the forest area, over half of which was made up of *Araucaria*, has plummeted from 40% land cover to 3% today. *Araucaria* forest in São Paulo covers 4.3% of its original area. In addition, 3,400 tons per annum of fruit and seeds are collected for human consumption. The Paraguayan population is small and confined to Alto Paraná. Seedling trees are scarce. Small relict populations, covering less than 1,000ha, in northeast Misiones, Argentina, are all that remain of the forest that in 1960 covered 210,000ha. The species is included on the official list compiled by *IBAMA* of threatened Brazilian plants.
Assessor: Varty, N. & D.L. Guadagnin
Refs: 4506, 5112, 7980, 8815, 11374, 13041, 13947, 15539, 16595, 19124, 19179

Araucaria araucana
Araucariaceae  VU A1cd
Argentina (Neuquén), Chile
Known widely as the Monkey Puzzle tree, this species ranges from the Coastal Cordillera of Chile to the Andes in Argentina. The populations on the coast are restricted and highly threatened. Andean populations are severely fragmented. Chile holds the largest populations, most of which are being illegally felled in and outside national park boundaries. The Chilean populations are listed in *CITES Appendix I and the Argentinian in Appendix II.
Assessor: SSC Conifer Specialist Group
Refs: 5112, 7980, 11147, 16328

Araucaria bernieri
Araucariaceae  LR/cd
New Caledonia
Confined to areas of moist evergreen forest in the south, this valued timber species is under some pressure from logging. It is well represented in protected areas including Rivière Bleue Provincial Park and Montagne des Sources Nature Reserve, where it is safe from being felled.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630
Araucaria biramulata
Araucariaceae LR/cd New Caledonia
Similar to A. bernieri the species is confined to areas of moist evergreen forest in the southern ultramafic massifs. It is under some pressure from logging and also fires. Well-protected populations exist in Rivière Bleue Provincial Park.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

Araucaria heterophylla
Araucariaceae VU B1+2c Norfolk Island
The Norfolk Island pine has experienced large historical population declines in its natural range. Much of the habitat continues to be converted into agriculture and human habitation. The species is widely planted throughout the world.
Assessor: SSC Conifer Specialist Group
Refs: 6144, 13041

Araucaria humboldtensis
Araucariaceae LR/cd New Caledonia
Occurring in cloud forest on three mountain ridges, the species is localised but not threatened or declining. Severe drought in recent years may have caused the death of about 10% of the Mount Humboldt population. Regeneration on Montagne des Sources, where it is protected in a nature reserve, appears to be good.
Assessor: SSC Conifer Specialist Group
Refs: 12630, 13041

Araucaria hunsteinii
Araucariaceae LR/nt Papua New Guinea
Recorded to be the tallest tree in Malesia, reaching 90m in height, the species occurs mainly in Fagaceae forest between 520 and 2100m. It has been reduced to scattered stands because of heavy exploitation of the good-quality timber. The species habitat is also threatened by shifting agriculture, fire and damage caused by feral pigs. Small plantations of 8000ha exist in Papua New Guinea and it has been introduced to Australia, Fiji and Peninsular Malaysia on an experimental scale. The export of Araucaria logs has been banned in Papua New Guinea.
Assessor: SSC Conifer Specialist Group
Refs: 707, 4506, 13041, 13204, 14573, 19147

Araucaria laubefelsii
Araucariaceae LR/cd New Caledonia
A species scattered on the southern ultramafic massifs. It is uncommon and confined to a few localities of submontane forest where wildfires can be a hazard.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

Araucaria luxurians
Araucariaceae EN B1+2c New Caledonia
Small populations are confined to fewer than five coastal sites on ultramafic soils in the south of the island. None of the populations is protected and in places, e.g. Plum, they are seriously threatened by fire and erosion. Mining and the increasing settlement of the area are also concerns.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

Araucaria muelleri
Araucariaceae LR/cd New Caledonia
The species is known from a few small populations in maquis shrubland on ultramafic soils in the southern massifs. Growth and regeneration appear to be slow and susceptible to the frequent wildfires. Effective protection is given to populations in Montagne des Sources Nature Reserve.
Assessor: SSC Conifer Specialist Group
Refs: 374, 9631, 12630

Araucaria nemorosa
Araucariaceae CR B1+2c New Caledonia
A single population exists at Port Boisé on the southern coast. It is on private land and is vulnerable to fires, felling and the expansion of human habitation, perhaps also to potential tourism.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

Araucaria rulei
Araucariaceae EN C1 New Caledonia
Occurring in small areas of maquis shrubland on the ultramafic massifs in the north-west, the species has experienced severe population declines because of nickel mining activities. Mining is now more strictly controlled and there have been good results from attempts to recolonise the mine spoil. However, this species appears to regenerate poorly and grow slowly. None of the populations is protected.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

Araucaria schmidii
Araucariaceae VU D2 New Caledonia
A well-protected species confined to montane cloud forest on Mont Panié. The area is inaccessible and not under threat. However, the species is confined to an area considerably less than 100km².
Assessor: SSC Conifer Specialist Group
Refs: 12630, 13041

Araucaria scopulorum
Araucariaceae EN B1+2c New Caledonia
Small populations occur in maquis shrubland on ultramafic soil in two or three sites on the north-east coast. They are completely unprotected in a well-populated area. Fire and mining activities are also causes for concern.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630

Araucaria subulata
Araucariaceae LR/cd New Caledonia
Endemic to New Caledonia, the species is scattered in the ultramafic massifs in the south. It occurs in abundance in submontane forest and is well protected in
Rivière Bleu Provincial Park and Montagne des Sources Nature Reserve. Threats exist from fire and felling.
Assessor: SSC Conifer Specialist Group
Refs: 12630

**Arbutus canariensis**
Ericaceae  VU D2
Spain (Canary Is.)
Endemic to the islands of Tenerife, Gomera, Hierro and Gran Canaria, this cloud forest tree is known from approximately 10 populations, probably containing no more than 10,000 individuals. Numbers appear to be stable, although declining water availability and fires may affect some areas. The species is listed in government legislation of 1991.
Assessor: Bahares, A. et al.
Refs: 451, 1512, 19022

**Arbutus glandulosa**
Ericaceae  LR/cd
Guatemala, Mexico
A species of montane pine-oak forest, occurring from central and southern Mexico to Guatemala. Parts of the range are contained within protected areas but most regions have experienced large-scale deforestation.
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 19161

**Arbutus pavarrii**
Ericaceae  VU D2
Libya
A species endemic to the Gebel Akhdar on the coast of Libya. The population range and status are little known at present.
Assessor: World Conservation Monitoring Centre
Refs: 195

**Arbutus xalapensis**
Ericaceae  LR/cd
Guatemala, Mexico
A species of montane pine-oak forest, occurring from central and southern Mexico to Guatemala. Parts of the range are contained within protected areas but most regions have experienced large-scale deforestation.
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 19161

**Archidendron forbesii**
Leguminosae  VU B1+2c
Papua New Guinea
A late secondary tree scattered in lowland rainforest; it is confined to the Central Province. The species is threatened by habitat destruction from felling and urban expansion.
Assessor: Eddowes, P.J.
Refs: 19114

**Archidendron oblongum**
Leguminosae  VU B1+2c
Solomon Islands (South Solomon)
Endemic to the Solomon Islands, this large tree is restricted to lowland rainforest in alluvial valleys. It is traditionally utilised as a timber for construction and fuel.
Assessor: World Conservation Monitoring Centre
Refs: 16292, 16612

**Archidendron pahangense**
Leguminosae  LR/cd
Malaysia (Peninsular Malaysia)
Confined to the Genting Highlands, the species is found in hill rainforest on sandstone between 600 and 1500m. There are pressures of increasing settlement and tourism development in the area, but a degree of protection is given to populations under the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 19073

**Archidendropsis glandulosa**
Leguminosae  VU B1+2c
New Caledonia
A relatively widespread species, occurring in various habitat types, thicket, maquis or gallery forest on rocky ultramafic soils. Various threats exist from fires, mining and agricultural encroachment.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

**Archidendropsis lenticifolia**
Leguminosae  VU B1+2c
New Caledonia
The species occurs in a few localities in the north-west of Grand Terre in maquis on ultramafic substrate. It is nowhere protected and the habitat is exposed to threats from fires, mining and clearance.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

**Archidendropsis paivana**
Leguminosae  VU C2a
New Caledonia
The species can be divided into three subspecies, which take up distributions in the north-west, north-east and southern regions of Grand Terre, including some of the neighbouring islands. All forms occur largely in rainforest on ultramafic soils and are exposed to threats from fire, mining activities and habitat clearance or degradation.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

**Archontophoenix myelensis**
Palmae  VU C2a
Australia (Queensland)
Restricted to an altitudinal range of 350 to 400m, the species occurs in riverine rainforest on metamorphic rocks in the Myola area and Black Mountain in the Kuranda range. The total population is estimated to contain 400 to 500 mature trees and remains unprotected. Regeneration is good.
Assessor: Dowl, J.L.
Refs: 19118

**Arctostaphylos catalinae**
Ericaceae  VU D2
USA (California)
A shrub or small tree endemic to Catalina Island.
Assessor: World Conservation Monitoring Centre
Refs: 19033

**Ardisia alstonii**
Myrsinaceae  VU A2c
Panama
The species occurs principally as a shrub, in areas of semi-deciduous rainforest up to 1100m in three provinces in the east of Panama, including Chiriquí near
the border with Costa Rica. The habitat is declining under increasing human activities, logging, agriculture and farming.

**Assessor:** Mitré, M.
**Refs:** 16772

**Ardisia amplexicaulis**

*Myrsinaceae*  
**EN B1+2c**  
**India (Kerala)**  
A poorly known species, occurring as a small tree in submontane evergreen forest in the Western Ghats. Only two imprecise collections exist, one from the Agasthyamalai Hills and the other from the Wayanad area.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Ardisia antonensis**  
*Myrsinaceae*  
**DD**  
**Panama**  
The species has been collected only once from the province of Coclé. No further records have been made, but many more collections from the family await identification.

**Assessor:** Mitré, M.  
**Refs:** 7272, 7980, 14873, 16772

**Ardisia blatteri**  
*Myrsinaceae*  
**EN B1+2c**  
**India (Kerala, Tamil Nadu)**  
Known from just two collections, the species occurs in submontane evergreen forest at the southern end of the Western Ghats.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Ardisia brittonii**  
*Myrsinaceae*  
**EN B1+2c**  
**Jamaica**  
A small tree endemic to St Thomas Parish. Forest areas in the parish have almost completely disappeared or are severely degraded.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 7980, 19116

**Ardisia byroniana**  
*Myrsinaceae*  
**CR C2b**  
**Jamaica**  
The species is known from a single locality in Peckham Woods, Clarendon, where it occurs on a rocky limestone hilltop at about 760m.

**Assessor:** Kelly, D.L.  
**Refs:** 5653, 19085

**Ardisia chiriquiana**  
*Myrsinaceae*  
**DD**  
**Panama**  
Only two records of the species have been made since the type specimen was collected from Cerro Pate Macho in Chiriquí Province. All records come from the same region. Although it would be possible tentatively to evaluate the species status as Critically Endangered, it may not be appropriate given that the species described by Lundell are frequently identified as synonyms.

**Assessor:** Mitré, M.  
**Refs:** 16772

**Ardisia colonensis**  
*Myrsinaceae*  
**EN B1+2bd**  
**Panama**  
A scarce species of lowland moist open forest, known only from a few collections in the region of Santa Rita in Colón Province. The area is relatively well studied. It is also unprotected and has experienced an influx of people over recent years, resulting in the loss of a large part of the forest.

**Assessor:** Mitré, M.  
**Refs:** 16772

**Ardisia darienensis**  
*Myrsinaceae*  
**DD**  
**Panama**  
Collections have been made only in Darién, the type collection coming from Darién National Park.

**Assessor:** Mitré, M.  
**Refs:** 16772

**Ardisia dukei**  
*Myrsinaceae*  
**EN B1+2c**  
**Panama**  
The species has been found only in Darién Province, where it is present in reasonable numbers in Cerro Pire within Darién National Park.

**Assessor:** Mitré, M.  
**Refs:** 7980, 16772

**Ardisia eugenioides**  
*Myrsinaceae*  
**EN B1+2c**  
**Panama**  
Known under the genus *Ardisia* in Panama, this species is confined to cloud forest between 2000 and 2600m in Fortuna Forest Reserve and its vicinity in Gualaca, Chiriquí Province. It is known only from a few collections and appears to be particularly sparse outside the reserve boundaries, where the growth in ranching and agriculture has caused considerable habitat loss.

**Assessor:** Mitré, M.  
**Refs:** 16772

**Ardisia furfuracella**  
*Myrsinaceae*  
**VU C1**  
**Costa Rica, Panama**  
In Panama the species is known only from the Cordillera Central in the province of Chiriquí, where it occurs sparsely in various open forest and scrub types up to 1900m, including areas opened up by ranching. It is a relatively common plant within a restricted area of Corcovado National Park in Puntarenas, Costa Rica. This is the only population which is protected.

**Assessor:** Mitré, M.  
**Refs:** 7272, 7980, 14873, 16772

**Ardisia geniculata**  
*Myrsinaceae*  
**DD**  
**Panama**  
Known only from the type specimen dated 1940, the species was collected from an area which is now a banana plantation. However, it is probable that the taxon represents a variation of another species.

**Assessor:** Mitré, M.  
**Refs:** 7272, 7980, 14873, 16772
**Ardisia glomerata**  
Myrsinaceae  
EN B1+2c  
Panama  
All collections of the species come from two neighbouring localities in the Valle de Antón in Coclé Province. It is a relatively common component of undisturbed cloud forest between 600 and 1000m. This area of forest is gradually disappearing through encroachment and, although at present unprotected, is being considered for designation as a protected area.  
Assessor: Mitré, M.  
Refs: 7272, 7980, 14873, 16772

**Ardisia hagenii**  
Myrsinaceae  
DD  
Panama  
The species has been collected only once from the province of Chiriquí in 1940.  
Assessor: Mittré, M.  
Refs: 7272, 7980, 14873, 16772

**Ardisia jamaicensis**  
Myrsinaceae  
VU B1+2c  
Jamaica  
Known only from localities in Westmoreland, Hanover and St James, the species is infrequent and generally confined to rocky limestone hilltops.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

**Ardisia jeffana**  
Myrsinaceae  
VU C2a  
Panama  
A cloud forest species, occurring commonly in the Cordillera de Cerro Jefe, including the Cerro Azul, and in the Serrania de Pirre, very close to the border with Colombia. Much of the species range coincides with either Chagres National Park or Darién National Park.  
Assessor: Mittré, M.  
Refs: 16772

**Ardisia martinensis**  
Myrsinaceae  
VU D2  
Peru  
Known only from the type collection, the species is found in *terra firma* forest in San Martin.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Ardisia masonii**  
Myrsinaceae  
LR/nt  
Costa Rica, Panama  
Usually known under the genus *Ardisia*, the species occurs in the Cordillera de Talamanca in south-east Costa Rica and western Panama, where it is fairly common in areas of closed and open rainforest above 800m. There are protected populations in La Amistad National Park and in the Valle de Antón in Panama. Large populations also occur in Boquete and Volcán in Chiriquí, Panama, but these are diminishing because of agricultural development.  
Assessor: Mittré, M.  
Refs: 16772

**Ardisia microcalyx**  
Myrsinaceae  
EN B1+2b  
Panama  
Endemic to the mountains of Chiriquí Province, the species appears to be fairly frequent but confined to a small area of forest between 800 and 1100m. The area is becoming extensively converted to agriculture and pastoralism. It is supposed that the species will be found in neighbouring protected areas, Volcán Barú National Park and Fortuna Forest Reserve.  
Assessor: Mittré, M.  
Refs: 7272, 7980, 14873, 16772

**Ardisia nigroviens**  
Myrsinaceae  
LR/nt  
Peru  
A Peru endemic, occurring in lowland Amazonian forest in Huánuco, Loreto and Madre de Dios.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Ardisia opaca**  
Myrsinaceae  
LR/nt  
Colombia, Costa Rica, Panama  
Occurring in various forest types over a wide altitudinal range, the species exists in sparsely scattered populations, except in Chiriquí Province, Panama, where it appears to be relatively common. In Santa Rita, Colón Province, Panama, the population is threatened by extensive forest clearance. There are also records of occurrences in Coto Brus in Costa Rica and in the Chocó in Colombia.  
Assessor: Mittré, M.  
Refs: 7272, 7980, 14873, 16772

**Ardisia panamensis**  
Myrsinaceae  
VU B1+2c  
Panama  
Originally known only from the type collection from Cerro Hoquetu, the species name has now been attached to a number of previously unidentified herbarium collections from the same region. The species occurs between 2000 and 2300m in cloud forest. There are populations recorded in Fortuna Forest Reserve and Volcán Barú National Park.  
Assessor: Mittré, M.  
Refs: 7272, 7980, 15310, 16772

**Ardisia premontana**  
Myrsinaceae  
VU D2  
Ecuador, Peru  
A tree currently known only from two collections from the lower eastern slopes of the Andes at the rim of the Amazon basin. The type was collected in central Peru and the other specimen is from southern Ecuador. The area is botanically undercollected.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984, 2909

**Ardisia rufa**  
Myrsinaceae  
EN C2a  
Panama  
Originally collected from Cerro Punta in Chiriquí Province, the species is known from few other collections in the same region and from Cerro Azul in Panamá Province. Although no further occurrences have been identified, it is possible that populations exist in the Cordillera Central in between these two areas. It occurs in moist evergreen forest from 800 to 2500m and appears to be uncommon.  
Assessor: Mittré, M.  
Refs: 16772

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<table>
<thead>
<tr>
<th>Species</th>
<th>Family</th>
<th>Status</th>
<th>Summary</th>
<th>Assessment</th>
<th>Refs</th>
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</thead>
<tbody>
<tr>
<td><em>Ardisia scheryi</em></td>
<td>Myrsinaceae</td>
<td>EN C2a</td>
<td>Panama Endemic to the Cordillera Central, the species is known only from a few records, all originating from high-altitude forest in the province of Chiriquí. It is possible the species range is more extensive but current information suggests the species is rare and restricted in range.</td>
<td>Assessor: Mitré, M.</td>
<td>7272, 7980, 14873, 16772</td>
</tr>
<tr>
<td><em>Ardisia scortechinii</em></td>
<td>Myrsinaceae</td>
<td>DD</td>
<td>Malaysia (Peninsular Malaysia) A small, rare tree of lowland rainforest.</td>
<td>Assessor: Chua, L.S.L.</td>
<td>8464, 19073</td>
</tr>
<tr>
<td><em>Ardisia sonchifolia</em></td>
<td>Myrsinaceae</td>
<td>EN B1+2c</td>
<td>India (Kerala) Probably also extending into Tamil Nadu, the species has only been collected from scattered localities of submontane forest in the Anamalai Hills. A single occurrence is also recorded further south near the Travancore range.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
<td>19144</td>
</tr>
<tr>
<td><em>Ardisia squamulosa</em></td>
<td>Myrsinaceae</td>
<td>VU A1cd</td>
<td>Philippines An endemic species to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
<td>2072, 4919</td>
</tr>
<tr>
<td><em>Ardisia subsessilifolia</em></td>
<td>Myrsinaceae</td>
<td>VU B1+2c</td>
<td>Panama Occurring in cloud forest above 1500m, the species is known from various localities in the Cordillera Central and the mountains which divide the provinces of Chiriquí and Bocas del Toro. It occurs in Volcán Barú National Park and a small part in the south-east of La Amistad National Park.</td>
<td>Assessor: Mitré, M.</td>
<td>7272, 7980, 14873, 16772</td>
</tr>
<tr>
<td><em>Ardisia urbani</em></td>
<td>Myrsinaceae</td>
<td>VU B1+2c</td>
<td>Jamaica An uncommon tree confined to woodland on limestone in Trelawny.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
<td>401, 5653, 7980</td>
</tr>
<tr>
<td><em>Ardisia websterii</em></td>
<td>Myrsinaceae</td>
<td>LR/cd</td>
<td>Ecuador This small understory tree is locally common in montane rainforest along streams, apparently only in the Maquipucuna Forest Reserve.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
<td>2909</td>
</tr>
<tr>
<td><em>Ardisia zakti</em></td>
<td>Myrsinaceae</td>
<td>VU D2</td>
<td>Ecuador This tree is known only from the type collection from remnant cloud forest on steep slopes. Road construction in the area has been responsible for the removal of a considerable area of forest.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
<td>2909</td>
</tr>
<tr>
<td><em>Areca andersonii</em></td>
<td>Palmae</td>
<td>DD</td>
<td>Brunei, Indonesia (Kalimantan), Malaysia (Sarawak) A solitary palm of lowland moist forest, often occurring in limestone crevices. A single collection is also recorded in Brunei.</td>
<td>Assessor: Dransfield, J.</td>
<td>19118</td>
</tr>
<tr>
<td><em>Areca chaiana</em></td>
<td>Palmae</td>
<td>DD</td>
<td>Indonesia (Kalimantan), Malaysia (Sarawak) A single-stemmed palm of lowland moist forest, often located near river banks, on slopes or in open areas. It is known to occur in the Entimam-Lanjak Wildlife Sanctuary, and is in cultivation at Semengoh Arboretum near Kuching, Sarawak. Forest management activities are affecting some areas within the species range.</td>
<td>Assessor: Dransfield, J.</td>
<td>19118</td>
</tr>
<tr>
<td><em>Areca concinna</em></td>
<td>Palmae</td>
<td>EN A1c</td>
<td>Sri Lanka Endemic to Sri Lanka, this small clustering palm tree is restricted to lowland rainforest. Its habitat is threatened by the expansion of human habitation. The seeds are used locally as a betel nut substitute.</td>
<td>Assessor: Johnson, D.</td>
<td>19118</td>
</tr>
<tr>
<td><em>Areca glandiformis</em></td>
<td>Palmae</td>
<td>DD</td>
<td>Indonesia (Moluccas) An endemic palm tree of the Moluccas, occurring in lowland forest. Although it is likely to be threatened by increasing agriculture and forest management activities, more fieldwork is needed to assign a category.</td>
<td>Assessor: Johnson, D.</td>
<td>19118</td>
</tr>
<tr>
<td><em>Areca guppyana</em></td>
<td>Palmae</td>
<td>DD</td>
<td>Solomon Islands A small palm tree of primary forest, endemic to the Solomon Islands, where it is under threat from logging, increasing agriculture and mining. Trees are planted in sacred places and cemeteries.</td>
<td>Assessor: Dowl, J.L.</td>
<td>19118</td>
</tr>
<tr>
<td><em>Areca hutchinsoniana</em></td>
<td>Palmae</td>
<td>LR/nt</td>
<td>Philippines A poorly known species found in only a few localities of primary forest at low altitude in Mindanao.</td>
<td>Assessor: Madulid, D.</td>
<td>19118</td>
</tr>
</tbody>
</table>
Areca ipot  
Palmae  
Philippines  
A species of streamsides and forest at low to medium altitude. It is confined to southern Luzon and is of significant importance as an ornamental.  
Assessor: Madulid, D.  
Refs: 19118

Aristeguieta discolor  
Compositae  
Peru  
A widespread species of *elfin forest and shrublands, endemic to the Peruvian Andes between 2000 and 4000m.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

Aristega macrorapra  
Palmae  
Philippines  
Very scanty information is available on the species. It may be a variety of A. catechu. Populations appear to be confined to lowland rainforest in Zambanga, Mindanao.  
Assessor: Madulid, D.  
Refs: 19118

Aristeguieta arborea  
Compositae  
Ecuador  
A tree species which is endemic to the High Andes of Ecuador.  
Assessor: World Conservation Monitoring Centre  
Refs: 19119, 19120

Arthrophyllum profliferum  
Araliaceae  
Papua New Guinea  
Known only from two collections, this medium-sized tree is confined to submontane rainforest on steep slopes in the Kuper range, Morobe District.  
Assessor: World Conservation Monitoring Centre  
Refs: 19031

Arthrophyllum pulgarone  
Araliaceae  
Philippines  
Endemic to Palawan, the species is found on the upper part of Mount Pulgar at about 1200m. The main island is declared a biosphere reserve.  
Assessor: World Conservation Monitoring Centre  
Refs: 4986

Arthrophyllum montanum  
Araliaceae  
Malaysia (Peninsular Malaysia)  
A small tree of moist montane rainforest in Terengganu, Kelantan, Pahang and Kedah (Gunung Jerai).  
Assessor: Chua, L.S.L.  
Refs: 8464, 19073

Arthrophyllum gracile  
Leguminosae  
Yemen (Socotra)  
A small tree or shrub which occurs relatively commonly in lowland and submontane woodland. It is an important cattle browse.  
Assessor: Miller, A.G.  
Refs: 2354, 19083

Arthrophyllum pulgarone  
Araliaceae  
Philippines  
This species of lowland seasonal forest and thicket is used for timber and the production of pulp and paper.  
Assessor: World Conservation Monitoring Centre  
Refs: 4919, 12937

Arthrophyllum pullgarese  
Araliaceae  
Philippines  
Known only from two collections, this medium-sized tree is confined to submontane rainforest on steep slopes in the Kuper range, Morobe District.  
Assessor: World Conservation Monitoring Centre  
Refs: 19031

Arthrophyllum montanum  
Araliaceae  
Malaysia (Peninsular Malaysia)  
A small tree of moist montane rainforest in Terengganu, Kelantan, Pahang and Kedah (Gunung Jerai).  
Assessor: Chua, L.S.L.  
Refs: 8464, 19073

Arthrophyllum gracile  
Leguminosae  
Yemen (Socotra)  
A small tree or shrub which occurs relatively commonly in lowland and submontane woodland. It is an important cattle browse.  
Assessor: Miller, A.G.  
Refs: 2354, 19083
woodland up to 1300m. Population numbers have declined because of overexploitation and habitat loss. 

Assessor: Sun, W.  
Refs: 1818, 19055

Artocarpus nobilis  
Moraceae  
VU Alc  
Sri Lanka  
A tree restricted to lowland rainforest in south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 15431, 17195

Artocarpus rubrovenus  
Moraceae  
VU A1d  
Philippines  
A lowland forest species which yields keledang timber used for light construction.  
Assessor: World Conservation Monitoring Centre  
Refs: 4919, 11145, 12937

Artocarpus treculianus  
Moraceae  
VU A1d  
Philippines  
A valuable source of keledang timber, this species occurs in lowland forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 4919, 11145, 12937

Arytera nekorensis  
 Sapindaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

Asimina tetramera  
Annonaceae  
EN C2a  
USA (Florida)  
A large shrub or small tree of scrub vegetation, occurring near the Atlantic coast in Jonathan Dickinson State Park, a Palm Beach County park and several privately owned areas. The total population consists of about 500 plants. The plant is adapted to disturbance, in the absence of which it becomes shaded out by oaks and pines. Although protected in Jonathan Dickinson State Park, elsewhere stands have become confined and scattered as the habitat has been cleared for commercial and residential development. The species is protected by the US Endangered Species Act.  
Assessor: World Conservation Monitoring Centre  
Refs: 7078, 8400, 19167

Aspidosperma curranii  
Apocynaceae  
VU B1+2de  
Colombia, Panama  
Most records of the species come from Darién National Park, where small populations occur in lowland evergreen forest. There is little human or other impact here, although some small clearings have been made for cultivation. An occurrence is also reported from the Urabá region in Colombia.  
Assessor: Mitré, M.  
Refs: 4217, 15037, 16772

Aspidosperma darierense  
Apocynaceae  
EN C2a  
Panama  
Occurring in lowland evergreen rainforest, the species is known only from the Panama side of the Colombia-

Panama border. Although the entire population is contained within protected areas, it is restricted in range and numbers, particularly of larger individuals.  
Assessor: Mitré, M.  
Refs: 7272, 7980, 16772

Aspidosperma megalocarpon  
Apocynaceae  
LR/nt  
Belize, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Suriname, Venezuela  
A common canopy tree of lowland seasonal rainforest. The timber is exploited on a small scale. General habitat losses have been considerable in the last 50 years. Populations are considered threatened at a national level in Ecuador, Mexico and throughout Central America.  
Assessor: World Conservation Monitoring Centre  
Refs: 3917, 7140, 11449, 15037, 19161

Aspidosperma polycarpon  
Apocynaceae  
EN A1acd+2cd  
Argentina (Misiones), Bolivia, Brazil, Colombia, Paraguay, Peru  
Peroba rosa is a popular timber tree, which has suffered intense exploitation and habitat loss over the past few decades. The Brazilian populations are largely eroded. Populations in Colombia are seriously threatened. In Paraguay, the species was relatively recently described as one of the dominant components of some areas of forest, but here too rapid population declines have resulted in the species being hard to find and no longer commercially viable to exploit. In Argentina the species is rare and confined to the north of Misiones.  
Assessor: Americas Regional Workshop  
Refs: 4217, 4506, 5112, 7980, 19069, 19179, 19210

Aspidosperma triternatum  
Apocynaceae  
LR/nt  
Argentina, Paraguay  
The species is restricted to lowland dry forest in the Chaco of Argentina and neighbouring Paraguay. The species range may be extensive but the ecosystem is susceptible to damage caused by human activities.  
Assessor: World Conservation Monitoring Centre  
Refs: 1262, 7980

Asteranthus asterias ssp. asterias  
Annonaceae  
VU B1+2b  
Kenya, Tanzania  
This subspecies appears to be relatively widely spread along the Kenyan coast down through Tanzania to Zanzibar. It occurs in dry forests and Brachystegia woodland.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 10961

Asteranthus asterias ssp. triangularis  
Annonaceae  
VU B1+2b  
Tanzania  
An endemic to the East Usambaras, the species is confined to patches of forest and also evergreen bushland on Sinden Hill.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 9302
Asteranthos brasiliensis
Lecythidaceae LR/nt
Brazil (Amazonas), Colombia, Venezuela
A species which grows quite abundantly, but only in flooded forest in the upper Rio Negro.
Assessor: Pires O'Brien, J.
Refs: 1503, 7980, 9632

Asterogyne spicata
Palmae VU B1+2c
Venezuela
A palm tree of lowland rainforest, restricted to Guatopo National Park and Cerro Bachiller of Miranda State. Increasing settlement has caused habitat losses in some areas. No reports exist of occurrences elsewhere in suitable habitat types.
Assessor: Stauffer, F.
Refs: 19118

Asterogyne yaracuyense
Palmae CR A1c, B1+2c, C1
Venezuela
A small palm, up to 5m tall, restricted to cloud forest on the mountain ridge of Santa Marla and on La Chapa ridge in Yaracuy state. Two years ago, a team from the Herbanio Nacional de Venezuela visited this area and found a massive deterioration of the habitat mainly due to agriculture and logging. This tree was not found in any of the neighbouring cloud forests and is presumed to have a very restricted distribution.
Assessor: Stauffer, F.
Refs: 19118

Asteronidium degeneri
Meliastomataceae VU D2
Fiji
A shrub or tree often occurring in dry forest or forest edges along watercourses up to 900m. It is so far known from a few collections from western Viti Levu.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Asteronidium floribundum
Meliastomataceae CR D1
Fiji
A small tree known only from the type collection, which was gathered in 1927 from the south-eastern slope of Mount Korombamba on Viti Levu.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Asteronidium kasiense
Meliastomataceae CR D1
Fiji
The single collection known was gathered in 1934 on Mount Kasi in dense forest between 300 and 430m. The area has been exposed to mineral exploitation and the species may now be extinct.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Asteronidium lepidotum
Meliastomataceae CR D1
Fiji
A poorly known species, collected twice from the same locality in forest below 200m near the copper mine at Waimaro River, Viti Levu. It has not been seen since 1964.
Assessor: World Conservation Monitoring Centre
Refs: 5372, 5515, 6053, 18818

Asteronidium macranthum
Meliastomataceae LR/nt
Fiji
Known from Viti Levu and Vanua Levu, the species occurs dry forest or forest edges up to 900m.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Asteronidium ovatifolium
Meliastomataceae DD
French Polynesia (Society Is.)
The species is known only from Raiatea.
Assessor: Florence, J.
Refs: 14513

The World List of Threatened Trees
Astronium pallidiflorum  
Melastomataceae  
Fiji  
Known only from the type collection, the species is confined to an area of dense forest, between 50 and 150m, in the hills west of Walvunu Creek, Viti Levu. It has not been seen since 1953.  
Assessor: World Conservation Monitoring Centre  
Refs: 5515, 6053, 15965, 18818

Astronium saulae  
Melastomataceae  
Fiji  
A slender tree localised in dense lowland forest at two sites on Viti Levu. One site of 27 plants on the southern slopes of Mount Korombamba was logged in 1980 but appears to be regenerating. The other site, consisting of 20 plants within an area of 10 x 20m, exists at Navua.  
Assessor: World Conservation Monitoring Centre  
Refs: 5515, 6053, 15965, 18818

Astronium storckii  
Melastomataceae  
Fiji  
Except for the type collection at Ovalau, the species is known only from Viti Levu. It has been collected in dense forest and thickets on crests and ridges between 30 and 1153m.  
Assessor: World Conservation Monitoring Centre  
Refs: 5515, 6053, 15965, 18818

Astronium tomentosum  
Melastomataceae  
Fiji  
Relatively rarely collected, this shrub or small tree is found in thickets on crests and summits, between 600 and 1200m. It occurs in a restricted area of Namosi Province in Viti Levu.  
Assessor: World Conservation Monitoring Centre  
_refs: 5515, 6053, 15965, 18818

Astronium urunduva  
Anacardiaceae  
Argentina (Jujuy, Salta), Bolivia, Brazil (Bahia, Goiás, Maranhão, Mato Grosso, Minas Gerais, Piauí, São Paulo), Paraguay  
A dominant component of *caatinga*, also occurring widely in *cerrado*. It is commercially overexploited for the decay-resistant dense wood. Large natural stands have become scarce in places. All size classes are exploited for a variety of uses: small trees for fencing and larger trees for railroad ties, posts and other construction work. Some taxonomists still refer to the species under the small genus *Myracrodruon*.  
Assessor: Prado, D.  
Refs: 1262, 4506, 5112, 11936, 12837, 13686, 14291, 15539, 19170

Atalaya capensis  
Sapindaceae  
South Africa (Eastern Cape)  
A small tree found in forest and bush, often on steep wooded hill slopes, in the vicinity of Port Elizabeth and supposedly further eastwards in the Transkei, although there are no records to confirm this. It has been recorded from several localities, at least two of which are now contained within protected areas. The extent of occurrence and number of mature trees have declined as a result of habitat loss through the invasion of introduced *Acacia* species. The future of the species should be secure provided that an alien eradication programme is maintained.  
Refs: 689, 19218

Atalaya natalensis  
Sapindaceae  
VU D2  
South Africa (Eastern Cape, KwaZulu-Natal)  
A very scarce tree with a highly scattered distribution in patches of coastal escarpment forest, from near Port St John's in the Transkei, Eastern Cape, northwards to Ngome forest in Zululand, KwaZulu-Natal. It appears to be associated with granite outcrops, but at present is known from only five localities within an area of 100km². Although most of the localities are contained within protected areas, the degree of protection afforded to them varies greatly. Uncontrolled activities, particularly cutting for firewood and timber, could rapidly result in the local demise of the species.  
Refs: 689, 19218

Ateleia gummifera  
Leguminosae  
EN A1c  
Cuba  
An uncommon tree, up to 7m tall, occurring in the dry evergreen forests of Matanzas Province and eastern Cuba. Habitat declines have been considerable over the past decades.  
Assessor: Areces-Mallea, A.E.  
Refs: 9522, 16327, 19149

Ateleia popenoei  
Leguminosae  
DD  
Bahamas  
There is little information on this endemic to the Bahamas. There are still substantial areas which remain undeveloped on the islands and the species is not thought to be under threat.  
Assessor: World Conservation Monitoring Centre  
Refs: 10173, 19207

Ateleia salicifolia  
Leguminosae  
VU B1+2c  
Cuba  
A small tree, up to 8m tall, confined to the dry forests on the southern slopes of the Escambray mountain range in central Cuba. The habitat is degraded in places and felling or forest clearance is a constant threat.  
Assessor: Areces-Mallea, A.E.  
Refs: 16327, 18485, 19149

Ateramnus glandulosus  
Euphorbiaceae  
VU B1+2c  
Cuba, Jamaica  
In Cuba this small tree is confined to the deeply eroded haystack mountain ranges of Pinar del Río Province and the Isla de Pinos.  
Assessor: Areces-Mallea, A.E.  
Refs: 19118, 19149

Ateramnus integer  
Euphorbiaceae  
LR/nt  
Jamaica  
An uncommon species confined to remaining areas of thickets and woodlands on limestone in the central and
western parishes. General habitat declines have been considerable, mostly caused by increasing agriculture.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

*Athrotaxis cupressoides*  
**Taxodiaceae**  
**LR/nt**  
Australia (Tasmania)  
A widespread taxon, which responds poorly to fires. About 80% of the population is contained within protected areas. The genus is endemic to Tasmania and comprises three species.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 13041, 17636

*Athrotaxis laxifolia*  
**Taxodiaceae**  
**LR/nt**  
Australia (Tasmania)  
The existence of this taxon is questioned by Tasmanian botanists, who believe it represents a hybrid of *A. cupressoides* and *A. selaginoides*. It is rarely encountered and occurs only in association with one or other of the latter two species. About 80% of the population is contained within protected areas. The genus is endemic to Tasmania and comprises three species.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 13041, 17636

*Athrotaxis selaginoides*  
**Taxodiaceae**  
**VU A1c**  
Australia (Tasmania)  
Although 83% of the entire population is contained within protected areas, the species has been observed to decline by 32% in less than 100 years through the effects of fire. No regeneration is evident after burning. The genus is endemic to Tasmania and comprises three species.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 13041, 13789

*Athyana weinmannifolia*  
**Sapindaceae**  
**VU B1+2ac**  
Argentina, Bolivia  
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species is confined to an unproductive ecosystem which is being rapidly replaced by agricultural systems.  
**Assessor:** Prado, D.  
**Refs:** 12637, 19122

*Atekindia cubensis*  
**Malvaceae**  
**EN A1c**  
Cuba  
This tree was formerly common in areas of lowland semi-deciduous forest throughout Cuba. As a result of burning and grazing, the habitat has been largely replaced by secondary savanna.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 19118, 19149

*Atteleea crassispina*  
**Palmae**  
**CR D1**  
Haiti  
A palm tree of lowland forest in river valleys, confined to the south-west peninsula of Haiti. In 1996, fewer than 30 individuals were found in two adjacent river valleys. The species is threatened by encroaching agriculture and local exploitation of the edible seeds. It is in cultivation at the Fairchild Tropical Garden, but the mature palms do not flower.  
**Assessor:** Johnson, D.  
**Refs:** 19118, 19166

*Attalea septuagena*  
**Palmae**  
**DD**  
Colombia  
Confined to Rio Miriti–Paraná, the species occurs in lowland rainforest. It has previously been listed as endangered according to the old IUCN Red List Categories. However, it has not been possible to attain an accurate reflection of the species' abundance and status since it is located in a remote and poorly visited area.  
**Assessor:** Bernal, R.  
**Refs:** 19118

*Attalea tesmannii*  
**Palmae**  
**LR/nt**  
Brazil (Acre), Peru  
Widespread in the western Amazon region, this palm tree grows in lowland *terra firme* rainforest. It is possibly of hybrid origin.  
**Assessor:** Henderson, A.  
**Refs:** 19118

*Attalea cordata*  
**Chrysobalanaceae**  
**VU D2**  
Malaysia (Sabah)  
This large tree is locally common on ultramafic soils up to 1200m. It is endemic to Sabah.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19017

*Attalea elliptica*  
**Chrysobalanaceae**  
**VU D2**  
Fiji  
Endemic to Viti Levu in Fiji, this small tree has been recorded rarely from areas of open forest, often near streams, below 100m. Trees have a number of uses: the timber is used locally for poles or posts, while the leafy branches can be used as thatch.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18818

*Attalea indica*  
**Chrysobalanaceae**  
**EN B1+2c**  
India (Tamil Nadu)  
The species has been recorded only twice from a small area of submontane evergreen forest to the north-west of the Nilgiri range.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

*Atteanea penangiana*  
**Chrysobalanaceae**  
**VU B1+2c**  
Malaysia (Peninsular Malaysia)  
A tree endemic to Peninsular Malaysia, inhabiting lowland and hill rainforest.  
**Assessor:** Chua, L.S.L.  
**Refs:** 5550, 19073

*Attealea travancorica*  
**Chrysobalanaceae**  
**EN B1+2c**  
India (Tamil Nadu)  
Collections of the species are concentrated on the Travancore Hills, just to the north of Agasthyamalai. There is also a single record of it further north in the
range. It was noted to be scarce at the turn of the century and few, if any, more recent records have been made, despite the area being relatively well surveyed.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 6431, 14276, 19144

**Aubreginia taiensis**
*Sapotaceae*  
CR B1+2c  
Côte d’Ivoire, Ghana

Scattered in moist semi-deciduous forest, this large tree is very rare and declining in numbers. In Côte d’Ivoire it is known only from a few specimens in Tai National Park, a World Heritage Site, where its regeneration is observed to be poor. The habitat in both countries has substantially decreased in extent because of logging and agricultural encroachment. It is the sole member of the genus and the only close relative of *Breveia*, which is also a monotypic genus.

**Assessor:** Assi, A.
**Refs:** 2773, 8854, 12061, 12822

**Aucoumea klaineana**
*Burseraceae*  
VU A1cd  
Cameroon, Congo, Equatorial Guinea, Gabon

*Okoumé* occurs abundantly in an area covering west and central Gabon and small areas of neighbouring countries. It continues to be Gabon’s most important commercial timber. Repeated felling has led to the deterioration of the gene pool in certain areas. There is some concern as to the long-term status of the species.

**Assessor:** White, L.
**Refs:** 5595, 13947, 17408, 19043

**Auerodendron jamaicense**
*Rhamnaceae*  
VU B1+2c  
Jamaica

The species is confined to coastal woodlands on limestone and sand dunes.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 6057, 7980

**Auerodendron pauciflorum**
*Rhamnaceae*  
CR D1  
Puerto Rico

A small tree from a single site of woodland on a limestone cliff. There are 10 individuals in the population, the majority of which are on land owned by a development company. The trees have not been seen to seed but efforts are being made to cultivate the plant from tissue culture.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 3786, 7980, 17124

**Aulacocalyx pallens ssp. pallens**
*Rubiaceae*  
VU D2  
São Tomé & Príncipe

Rarely collected, the taxon is known from submontane forest in two locations, S. Pedro and S. Nicolau. It is noticeably absent from recent collections, although large areas of São Tomé remain to be explored.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2724

**Aureliana fasciculata**
*Solanaeae*  
LR/cd  
Brazil (Espírito Santo, Minas Gerais, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, São Paulo)

A frequent species of Atlantic coastal vegetation types in the south and south-east. It occurs in a number of protected areas.

**Assessor:** Carvalho, L.d.A.F.
**Refs:** 19098, 19103

**Austrobuaxus cracens**
*Euphorbiaceae*  
VU D1  
New Caledonia

**Assessor:** Jaffré, T. et al.
**Refs:** 10351

**Austrobuaxus montis-do**
*Euphorbiaceae*  
LR/cd  
New Caledonia

**Assessor:** Jaffré, T. et al.
**Refs:** 10351

**Austrocedrus chilensis**
*Cupressaceae*  
VU A1c  
Argentina, Chile (Biobío, Los Lagos)

A species of submontane woodland and scrub, known to occur in two separate localities in Chile: Antuco in Biobío and further south in Valdivia, Los Lagos, and also over the border in Questrihue in Argentina. Declines in population numbers have been reported, at least in Argentina, caused by logging and habitat loss through fires, grazing and replanting with exotic conifers: 85% of the Argentinian population occurs outside protected areas and is being actively exploited. Insect predation of the seed is also, apparently, affecting regeneration in the wild and in small plantations.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 4893, 11147, 13041

**Austromyrtus horizontalis**
*Myrtaceae*  
VU B1+2c  
New Caledonia

Confined to a few locations in sclerophyllous woodlands the species has experienced the severe reduction and fragmentation of its habitat. It remains ineffectively protected and threatened by fire, grazing and encroaching agriculture.

**Assessor:** Jaffré, T. et al.
**Refs:** 4492, 10351

**Austromyrtus lotoides**
*Myrtaceae*  
VU B1+2c  
New Caledonia

Confined to a few locations in sclerophyllous woodlands the species has experienced the severe reduction and fragmentation of its habitat. It remains ineffectively protected and threatened by fire, grazing and encroaching agriculture.

**Assessor:** Jaffré, T. et al.
**Refs:** 4492, 10351

**Autranella congolensis**
*Sapotaceae*  
CR A1cd  
Cameroun, Congo, Gabon, Nigeria

A relatively rare rainforest species. Heavy exploitation for the timber is the main cause of its decline. The seeds are used locally and traded as ratites for dancers.

**Assessor:** African Regional Workshop
**Refs:** 2362, 2773, 6718, 17408

**Avicennia lanata**
*Avicenniaceae*  
VU B1+2c  
Malaysia (Peninsular Malaysia)

Found throughout Peninsular Malaysia, this species
grows in open clusters in moist coastal forest. Tourism and housing developments are this species’ greatest threats.

Assessor: Chua, L.S.L.
Refs: 5550, 11647, 17214, 19073

**Axinaea merianiae**
Meliaceae  VU B1+2c
Ecuador
An endemic of the High Andes in Ecuador, inhabiting cloud forest between 2200m and 3715m in the provinces of Pichincha, Morona-Santiago, Calfar, Azuay and Loja. Assessor: World Conservation Monitoring Centre Refs: 19119, 19120

**Axinaea nitida**
Meliaceae  LR/nt
Peru
Restricted to the departments of Amazonas, Cajamarca and Huánuco, the species occurs at middle elevations in disturbed areas of forest.
Assessor: World Conservation Monitoring Centre Refs: 1984

**Axinaea pauciflora**
Meliaceae  VU B1+2c
Ecuador
A rare tree species which is endemic to montane forest in the Ecuadorean High Andes.
Assessor: World Conservation Monitoring Centre Refs: 2989, 6596, 19119, 19120

**Axinaea sclerophylla**
Meliaceae  VU B1+2c
Ecuador
A rare species of tree or shrub, restricted to the High Andes of Ecuador, where it occurs in the montane forest zone.
Assessor: World Conservation Monitoring Centre Refs: 2989, 6596, 19119, 19120

**Axinaea sessilifolia**
Meliaceae  VU B1+2c
Ecuador
A rare tree species which is endemic to the High Andes of Ecuador.
Assessor: World Conservation Monitoring Centre Refs: 2989, 6596, 19119, 19120

**Axinandra zeylanica**
Crypteroniaceae  VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre Refs: 9176, 17195

**Ayenia laevigata var. acuminata**
Sterculiaceae  EN B1+2c
Jamaica
A variant of a Jamaican endemic. It grows largely as a shrub, in thickets on rocky limestone hillsides in Trelawny.
Assessor: World Conservation Monitoring Centre Refs: 401, 7980

**Ayenia laevigata var. laevigata**
Sterculiaceae  VU B1+2c
Jamaica
The type variety of a shrubby endemic, which is confined to remnants of dry lowland thicket and woodland on limestone in St Andrew and St Thomas Parishes. Almost all forest areas have been deforested or severely degraded.
Assessor: Bellingham, P.
Refs: 401, 7980, 19116

**Baccaurea glabrifolia**
Euphorbiaceae  VU B1+2c
Philippines
An endemic tree of Palawan, found on forested slopes at low altitude. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre. Refs: 4986

**Baccaurea hookeri**
Euphorbiaceae  LR/nt
Malaysia (Peninsular Malaysia), Singapore
A rare species of lowland rainforest, recorded from Perak and Johore in Peninsular Malaysia.
Assessor: Kochummen, K.M.
Refs: 9199, 17140, 19073

**Baccaurea latifolia**
Euphorbiaceae  LR/nt
Malaysia (Peninsular Malaysia), Singapore
A lowland rainforest species, which has been rarely collected. In Peninsular Malaysia it is known from Terengganu and Perak.
Assessor: Kochummen, K.M.
Refs: 9199, 19073

**Baccaurea odoratissima**
Euphorbiaceae  VU B1+2c
Philippines
An endemic tree of Palawan, found on forested slopes at low altitude. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre Refs: 4986

**Baccaurea polyneura**
Euphorbiaceae  LR/nt
Malaysia (Peninsular Malaysia)
Records of the species come from Perak and Melaka.
Assessor: Kochummen, K.M.
Refs: 19073

**Bactris coloniata**
Palmae  VU B1+2c
Colombia, Panama, Peru
Occurring in lowland dry forest, the species is mainly threatened by the loss and degradation of its habitat through forest management activities, increasing agriculture and settlement.
Assessor: Bernal, R.
Refs: 19118

**Bactris jamaicana**
Palmae  VU A2c
Jamaica
Restricted to John Crow Mountain and Cockpit Country, this rare palm tree grows in submontane rainforest
between 300 and 750m. The species can survive forest degradation and destruction and is reputed to grow in pastures.

Assessor: Johnson, D.
Refs: 19118

**Bactris longiseta**

Palmae VU A2c
Costa Rica
A small palm tree of lowland rainforest, occurring up to 1000m in Alajuela, Heredia and Limón. The species is scarce and threatened by habitat destruction and disturbance.

Assessor: Johnson, D.
Refs: 19118

**Bactris nancibensis**

Palmae CR D1
French Guiana
A small multi-stemmed palm found in the understorey of swamp forest. Only two specimens are known: occurring south of the Cayenne area. One has been transplanted to Orstom Botanical Garden, where it has been observed to flower. The other specimen is located close to a road where it may come under threat from logging activities or clearing for settlement and agriculture.

Assessor: de Granville, J.J
Refs: 19118

**Bactris pickelli**

Palmae VU A1c
Brazil (Alagoas, Bahia, Espírito Santo, Parába, Pernambuco, Sergipe)
A small palm tree, up to 2.5m tall, scattered in lowland Atlantic rainforest and *restinga* up to 500m. Populations have been greatly reduced because of building work and plantation agriculture near the coast. The species does not survive outside the rainforest.

Assessor: Noblick, L.
Refs: 19118

**Bactris setulosa**

Palmae LR/nt
Colombia, Ecuador, Peru, Trinidad and Tobago, Venezuela
A widely occurring palm tree of rainforest up to 1700m. It occurs in many areas which have been subject to habitat clearance.

Assessor: Henderson, A.
Refs: 19118

**Badula crassa**

Myrsinaceae CR C1, D1
Mauritius, Réunion
A treelet known from two sites of rocky sclerophyllous woodland, one in Tourelle du Tamarin Mountain in the south-west and the other, only recently discovered, in Yemen. Neither population consists of more than 10 individuals. There has not been any seed production and propagation by cuttings has failed. Information is lacking on the population on Réunion.

Assessor: Page, W.
Refs: 1411, 9120, 16426

**Badula platyphylla**

Myrsinaceae EX
Mauritius
A cloud forest tree once known from the Savanne and Mount Cocotie range. Recent searches for the species throughout its known range have failed to uncover any individuals.

Assessor: Page, W.
Refs: 1411, 9120, 16426

**Badula reticulata**

Myrsinaceae CR D1
Mauritius
Just five individuals appear to remain of this cloud forest treelet, three in the Savanne range, where an 8ha conservation area has now been designated, and single plants have been recently discovered at Machabae and Mount Cocotie. No flowering or seeding individuals have been observed and propagation has not been possible.

Assessor: Page, W.
Refs: 1411, 9120, 16426

**Bafodeya benna**

Chrysobalanaceae VU B1+2c
Guinea, Sierra Leone
A monotypic species endemic to upland areas between 700 and 1000m in Guinea and neighbouring Sierra Leone. There is little information on its population status. Few areas exist which are not threatened with overcutting and agricultural activities.

Assessor: World Conservation Monitoring Centre
Refs: 1090

**Baikiaea ghesquieriana**

Leguminosae EN B1+2c
Tanzania
The only record of the species is from coastal forest in the Matumbi Hills, within Namakutwa and Tong'oamba Forest Reserves (46km² and 25km² respectively). The former is a productive reserve: forest on the plateau continues to be cleared for agriculture and illegal logging has been occurring in the more riverine areas. The latter also experiences some agricultural encroachment but its boundaries are being cleared, which will help to prevent further declines.

Assessor: Lovett, J. & G.P. Clarke
Refs: 2459, 16796

**Baikiaea plurijuga**

Leguminosae LR/nt
Angola, Botswana, Namibia, Zambia, Zimbabwe
The dominant species of lowland tropical forest on Kalahari sands. Its timber is known as Zambesi teak. The forests are now degraded and considerably diminished because of increased logging over the last 50 years. Older individuals are also scarce. However, the range of the species has declined fractionally as it can regenerate in modified habitat types and also coppices well.

Assessor: World Conservation Monitoring Centre
Refs: 16608, 17335

**Baillonella toxisperma**

Sapotaceae VU A1cd
Cameroon, Congo, Gabon, Nigeria
Moabi is restricted to areas of primary evergreen and old secondary rainforest. The species is overexploited for its timber and is seriously declining in large parts of its
range. It is the second most important exported wood in Gabon. Amongst other local uses the tree produces edible oil which can fetch high market prices. Maturation rates are slow: 90-100 years, and regeneration occurs only under a closed canopy. Minimum exploitable diameters have been set in several countries. *Baillonella* is a monotypic genus endemic to the Guinea–Congolian Regional Centre of Endemism.

**Assessor:** White, L.

**Refs:** 2262, 2773, 6718, 17408, 19043

### Balanops balansae

**Balanaceae**

New Caledonia

**Assessor:** Jaffré, T. *et al.*

**Refs:** 10351

### Balfouriodendron riedelianum

**Rutaceae**

Argentina, Brazil (Paraná, Rio Grande do Sul, Santa Catarina, São Paulo), Paraguay

A common species of lowland forest along the banks of the Paraná and Uruguay River systems. It also extends into *cerrado*. The species has become scarce in places because of overexploitation of the timber and deforestation, but it is still reported to occur in abundance in a large part of its range. The genus is under taxonomic review.

**Assessor:** Americas Regional Workshop

**Refs:** 4306, 13947, 19179

### Balaphigia pinifolia

**Euphorbiaceae**

New Caledonia

**Assessor:** Jaffré, T. *et al.*

**Refs:** 10351

### Balsamocitrus camerunensis

**Rutaceae**

Cameroon, Central African Republic

A small forest tree known from occurrences at Batouri and Bertona in the Eastern Province of Cameroon and from Boukoko in Central African Republic. Little is known on the status of the populations.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 12597

### Balthasaria mannii

**Theaceae**

São Tomé & Príncipe (São Tomé & Príncipe)

Endemic to São Tomé, this species occurs in rainforests from 1300m to the summit of Pico. There are no significant threats, although the forest below 1500m was largely cleared at the beginning of the century. The genus is represented elsewhere only by an East African Afromontane species of restricted range.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 2421

### Balthasaria schleienii

**Theaceae**

Democratic Republic of Congo, Rwanda, Tanzania

Isolated populations are known from forested areas in the Uluguru Mountains, West Usambara Mountains and the Albertine Rift. There is a distinct variance between the populations but it is not thought to be taxonomically significant. The only other member of the genus is endemic to São Tomé.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3356, 8814

### Banara brasiliensis

**Flacourtiaeae**

Brazil (Rio de Janeiro)

Known only from Rio de Janeiro, the species has been recorded from littoral habitats and small mountains. The paucity of recent collections suggests that the species has become scarce.

**Assessor:** Pires O’Brien, J.

**Refs:** 7980, 19099

### Banara ibaguensis

**Flacourtiaeae**

Colombia

**Assessor:** Calderon, E.

**Refs:** 7980, 19069

### Banara vanderbiltii

**Flacourtiaeae**

Puerto Rico

A horticulturally attractive small tree, known from two populations in the wild, accounting for about 18 individuals. One population occurs on a moist limestone hill, where it may be under potential threat from quarrying. Grazing and farming are also concerns. The numbers of plants in cultivation, mostly located in Fairchild Tropical Garden, exceed those in the wild.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 17124

### Banara wilsonti

**Flacourtiaeae**

Cuba

An endemic shrub which rarely attains the size of a small tree. It occurs in coastal and subcoastal dry evergreen forests and scrub in the Puerto Padre area of central Cuba. The habitat is severely degraded in many places and the remaining areas continue to be susceptible to cutting and clearing. Development for tourism is the present major threat.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 19149
Species Summaries

Baphia abyssinica
Leguminosae
VU A1c
Ethiopia, Sudan
A small tree, common in places, restricted to small enclaves of moist forest on the north-western highlands of Ethiopia and adjacent parts of Sudan on the Boma Plateau and Mount Tomadur. Large expanses of this forest in Ethiopia have been replaced by coffee plantations in the last two decades.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 2361, 18523

Baphia dewildeana
Leguminosae
VU A1c, B1+2c
Cameroon, Nigeria
A forest species scattered within an area extending from south-east Nigeria into Cameroon. It is not recorded in the Oban Hills and its habitat outside protected areas has experienced heavy declines because of logging and clearing for commercial and subsistence agriculture. The present status of remaining populations is unknown and may be more seriously threatened.
Assessor: World Conservation Monitoring Centre
Refs: 11504

Baphia heudeletiana
Leguminosae
VU B1+2c
Guinea, Senegal
A shrub or small tree of dry savanna and dry river beds, known from few collections, the precise localities of which are unknown.
Assessor: World Conservation Monitoring Centre
Refs: 2773

Baphia incerta ssp. lebrunii
Leguminosae
VU D2
Democratic Republic of Congo
This subspecies is endemic to the Kivu Plateau in DR Congo, where it occurs in the transitional zone between forest and savanna between 1000 and 1350m.
Assessor: World Conservation Monitoring Centre
Refs: 7550

Baphia keniensis
Leguminosae
VU B1+2c
Kenya
A shrub or tree of riverine forest, endemic to the central mountains of Kenya. Populations in Meru National Park are protected, although tourism may exert some pressure on them. Elsewhere there is no protection and some threat from habitat clearance and land development.
Assessor: World Conservation Monitoring Centre
Refs: 1308, 6396, 13072, 17859

Baphia kirki
Leguminosae
VU B1+2b
Kenya, Mozambique, Tanzania
The range of this coastal forest species extends from eastern Tanzania and Mafia Island to northern Mozambique. The populations in Mozambique may be extensive. Much of the habitat has suffered from conversion to agriculture and local exploitation.
Assessor: Lovett, J. & G.P. Clarke
Refs: 2459, 3356, 5117, 7550, 8814

Baphia latiloi
Leguminosae
VU A1c, B1+2c
Cameroon, Nigeria
A small forest tree which occurs within a range extending from south-east Nigeria just into Cameroon. Populations in the Oban Hills, in Cross River National Park, are protected. There has been extensive deforestation in the surrounding area.
Assessor: World Conservation Monitoring Centre
Refs: 4977, 11504

Baphia leptostemma ssp. leptostemma
Leguminosae
VU B1+2c
Cameroon, Gabon
A species of coastal forest occurring in one location in eastern Cameroon and further south around Libreville in Gabon. There have been large declines in the extent of this habitat, mainly through logging. The present status of these populations, if they are still extant, is uncertain.
Assessor: World Conservation Monitoring Centre
Refs: 9001

Baphia leptostemma var. conraui
Leguminosae
VU D2
Cameroon
A species for which there is little information and few collections. It is found in the mountains in the west.
Assessor: World Conservation Monitoring Centre
Refs: 9001

Baphia macrocalyx
Leguminosae
VU B1+2b
Mozambique, Tanzania
Ranging from south-east Tanzania to northern Mozambique, this species is found only in patches of dry forest. The habitat has suffered extensively from the exploitation of timber resources and agricultural encroachment.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 10961

Baphia marcellana ssp. marquesii
Leguminosae
VU D2
Angola
Only a single collection has been made of this subspecies.
Assessor: World Conservation Monitoring Centre
Refs: 7550, 9001

Baphia obanensis
Leguminosae
VU A1c, B1+2c
Cameroon, Nigeria
A morphologically unusual and rare Baphia species, which is confined to an area extending from south-east Nigeria into adjacent parts of Cameroon. The Nigerian population occurs in the Oban Hills, in Cross River National Park. Unprotected forest has been heavily logged and taken over for cultivation.
Assessor: World Conservation Monitoring Centre
Refs: 4977, 11504

Baphia pauloi
Leguminosae
EN C2b, D1
Tanzania
A coastal forest tree only known from Kimboza forest, a 4km² patch of forest in the foothills of the Uluguru Mountains. The forest has been heavily logged for valuable timber in the past and the planted Cedrela has become invasive. The surrounding area is densely


Bassellia favieri  
**VU D1**  
New Caledonia  
This species is confined to a small area on Mont Banié.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 19118

Bassellia humboldtiana  
**LR/cd**  
New Caledonia  
Although the species is confined to a small area in the south-east, it is effectively protected in a national park.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 19118

Bassellia iterata  
**VU D2**  
New Caledonia  
A species occurring as solitary individuals in wet forest on ridges on schist or mica-schist soils, confined to the north-east.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 19118

Bassellia porphyrea  
**LR/cd**  
New Caledonia  
A localised species, confined to the south-west, where it is found in wet forest on serpentine between 900 and 950m. It is effectively protected within a national park.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 19118

Bassellia tomentosa  
**VU D2**  
New Caledonia  
This species is confined to a schistose ridge between 1000 and 1100m on Mount Nakada.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 19118

Bassellia vestita  
**VU D2**  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351

Bauhinia augusti  
**VU D2**  
Peru  
A species currently known only from the type collection taken from disturbed areas of lowland forest and shrublands in the Cajamarca region of the Peruvian Andes.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

Bauhinia bowkeri  
**VU D2**  
South Africa (Eastern Cape)  
Historically, this scrambling shrub or small tree was known from a few localities along the Eastern Cape coast (mainly in the Transkei), where it occurred in riverine scrub. At present it is known from a single locality, where there are 20 mature plants. It is probable that the species will be discovered in other localities.
The observed declines have been largely caused by cutting for firewood and grazing by livestock.

Refs: 689, 19218

**Bauhinia integerrima**
Leguminosae  
EN B1+2c
Braz (Bahia)
The distribution of this species is restricted, occurring in Atlantic forest in the south of the state. The habitat appears to have been taken over by commercial crops and the current status of remaining populations is uncertain.
Assessor: World Conservation Monitoring Centre
Refs: 19098, 19100

**Bauhinia loeseneriana**
Leguminosae  
VU B1+2b, D2
Tanzania
Endemic to coastal forest in Tanzania, this species is known only from four sites. One population is protected, occurring in Rondo Forest Reserve (140km²), where human activities have caused extensive disturbance in the past but are presently discouraged by an active forestry programme.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3536, 16796

**Bauhinia mombassae**
Leguminosae  
EN B1+2c
Kenya
A small tree of rocky riverine areas, reportedly common in places. Populations are known from Shimba Hills National Reserve, Kaya Rabai, a locality along Mwache River and Mkonini North. Of these four sites, only Kaya Rabai is not legally protected. There is a threat of habitat degradation and increasing elephant numbers could also pose a problem.
Assessor: CAMP Workshop in Kenya
Refs: 19181

**Bauhinia paradisi**
Leguminosae  
CR C2a
Honduras
A species of doubtful nomenclature, known only from an area of dry submontane forest.
Assessor: Nelson, C.
Refs: 13995

**Beauprea congesta**
Proteaceae  
EN D1
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Beauprea crassifolia**
Proteaceae  
VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Beccariophoenix madagascariensis**
Palmae  
CR B1+2cd
Madagascar
Only two populations are known, occurring in Mantady and the south-west. The timber, food and fibre are of local use.
Assessor: Johnson, D.
Refs: 19118

**Behaimia cubensis**
Leguminosae  
EN A1cd
Cuba
A slow-growing shrub or tree found only occasionally in woodlands and dry evergreen forests on dog-tooth limestone, rocky terraces and cliffs. The species has been overexploited for its hard, precious wood.
Assessor: Areces-Mallea, A.E.
Refs: 9522, 16327, 19149

**Beilschmiedia ambigua**
Lauraceae  
VU B1+2b, D2
Democratic Republic of Congo
A rare species found in one locality of gallery forest along the Pweto to Moba road on the Marungu Plateau, situated on the western shores of Lake Tanganyika. There are serious threats of habitat degradation because of logging and the erosion of stream banks caused by cattle.
Assessor: Ndjele, M.B.
Refs: 17185, 17951

**Beilschmiedia bracteata**
Lauraceae  
VU D2
Democratic Republic of Congo
Known only from a single locality, the species exists in equatorial swamp forest along the Congo River in the Lubungla region. Overcutting and encroaching agriculture are putting pressure on the habitat.
Assessor: Ndjele, M.B.
Refs: 17185, 17951

**Beilschmiedia brevipes**
Lauraceae  
VU D2
Malaysia (Peninsular Malaysia)
Recorded from Kelantan, Terengganu and Pahang by a single collection from each state, the species grows in lowland forest between the altitudes of 30 and 60m. It may receive a degree of protection within permanent forest reserves or virgin jungle-reserves.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Beilschmiedia giorigli**
Lauraceae  
VU D2
Democratic Republic of Congo
A species which seems to be rare and known from a single locality in closed *terra firme* forest north of the Forestier Centrale at Likimi. There are some threats of overcutting and encroaching agriculture. The leaves are popular locally for greasing the skin.
Assessor: Ndjele, M.B.
Refs: 17185, 17951
**Beilschmiedia kweo**
Lauraceae  VU B1+2b  Tanzania
A large tree confined to moist submontane forest in the East Usambara Mountains and the North Udzungwa Mountains.
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 10961

**Beilschmiedia mayumbensis**
Lauraceae  VU B1+2c, D2  Democratic Republic of Congo
A Mayombe endemic occurring in modified old forest in the Luki area, where there is a forest reserve. The surrounding area is densely populated and there are heavy demands on the forest for timber and charcoal production and also land for agriculture.
Assessor: Ndjele, M.B.  
Refs: 7221, 17951

**Beilschmiedia membranacea**
Lauraceae  VU D2  Malaysia (Peninsular Malaysia)
A hill forest tree known only from two collections, originating from Pahang and Perak. The species is believed to be protected in permanent forest reserves and/or Taman Negara National Park.
Assessor: World Conservation Monitoring Centre  
Refs: 8464, 19073

**Beilschmiedia penangiana**
Lauraceae  CR B1+2c  Malaysia (Peninsular Malaysia)
This species is known from a single collection from Penare Bukit, Penang at about 300m. Most parts of Penang have been developed since the collection was made, so the species' existence is uncertain.
Assessor: World Conservation Monitoring Centre  
Refs: 8464, 19073

**Beilschmiedia ugandensis**
Lauraceae  VU A2d  Democratic Republic of Congo, Sudan, Tanzania, Uganda
A species well known for its timber. It occurs in forests, usually in swampy areas. The tree is felled to make dugout canoes. It is also used in mine shafts and as a fuelwood. The levels of exploitation, notably in Uganda, as well as a general decline in the extent or condition of the habitat, are major threats.
Assessor: *MUINER  
Refs: 9605

**Beilschmiedia vermorensis**
Lauraceae  VU B1+2b, D2  Democratic Republic of Congo
A rare endemic to Mayombe, occurring in remaining areas of closed forest. This habitat has been greatly reduced in extent because of logging and agriculture: 35% of the forest was under concession in 1980.
Assessor: Ndjele, M.B.  
Refs: 5651, 17185, 17951

**Beilschmiedia zeylanica**
Lauraceae  EN B1+2c  Sri Lanka
A tree occurring in lowland wet evergreen forest in south-west Sri Lanka. During the extensive National Conservation Review forest surveys, the species was found only in three localities in Ratnapura, Matara and Kalutara Districts.
Assessor: World Conservation Monitoring Centre  
Refs: 9176, 17195, 19112

**Belaria parvifolia**
Leguminosae  VU B1+2c  Cuba
Populations of this shrub or small tree are restricted to the dry forests and scrublands on limestone terraces in Pilón in Granma Province. The species is still locally common, but the habitat has declined and is threatened by overcutting and tourism-related development.
Assessor: Areces-Malles, A.E.  
Refs: 11403, 18485, 19149

**Belonophora talbottii**
Rubiaceae  VU B1+2c  Nigeria
The species range appears to be confined to the Oban Hills in Cross River National Park. Large-scale deforestation and clearance for crops have taken place extensively outside the park boundaries.
Assessor: World Conservation Monitoring Centre  
Refs: 2773, 4977

**Bennettiodendron cordatum**
Flacourtiaeae  VU B1+2c  Viet Nam
Endemic to north Viet Nam, the species is found in a number of localities in Lang Son, Quang Ninh, Hoa Binh and Ha Tay.
Assessor: World Conservation Monitoring Centre  
Refs: 848, 11530

**Benincinia condapanna**
Palmae  VU A1c  India (Kerala, Tamil Nadu)
A single-stemmed palm tree, confined to the southern Western Ghats, where it occurs on slopes in moist evergreen hill forest. The species is locally traded as an ornamental. It is also present in protected areas and planted in several botanic gardens.
Assessor: Johnson, D.  
Refs: 19118, 19144

**Benincinia nicobarica**
Palmae  EN C2a  India (Andaman and Nicobar Is. - Nicobar Is.)
A palm of importance ornamental, known only from Great Nicobar Island. No recent collections exist and increasing settlement has caused habitat losses.
Assessor: Johnson, D.  
Refs: 19118

**Berbertis dryandriphylla**
Berberidaceae  VU B1+2c  Peru
A species known only from the Andes in Cuzco, between 2000 and 3000m.
Assessor: World Conservation Monitoring Centre  
Refs: 1984
**Berberis nilghiriensis**

Berberidaceae  
Cr B1+2c

India (Tamil Nadu)

A poorly known species, recorded only once, from an unspecified location in the Nilgiri Hills.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8483, 16435, 19144

**Berlineria coriacea**

Leguminosae  
VU B1+2ac

Nigeria

Occurring in swampy forests, this small tree with showy flowers is recorded only from south-western Nigeria. Large-scale deforestation and clearing for commercial and subsistence agriculture in the country have caused a rapid decline in all forest types.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2773, 7550, 11504

**Berlineria hollandii**

Leguminosae  
EN B1+2c

Nigeria

A rare forest tree, apparently endemic to south-eastern Nigeria. Current information indicates that it does not occur in the Oban Hills in Cross River National Park. Unprotected areas have been heavily logged and cleared for agriculture.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7550, 8369, 12061

**Berlineria occidentalis**

Leguminosae  
VU A1c, B1+2c

Côte d’Ivoire, Ghana, Liberia, Sierra Leone

Confined to wet lowland evergreen forest from Sierra Leone to Ghana, this species is restricted largely to swampy areas. The general loss of its habitat, because of commercial forestry activities and mining, has been extensive.

**Assessor:** Hawthorne, W.  
**Refs:** 7550, 8369, 12061

**Berlineria orientalis**

Leguminosae  
VU B1+2b

Mozambique, Tanzania

Populations are known to occur in dry forest in south-east Tanzania and further south in neighbouring Mozambique.

**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 10961

**Bersama rosea**

Meliaceae  
VU B1+2b

Tanzania

A cloud forest species endemic to the South Udzungwa Mountains.

**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 5204

**Bersama swynnertoni**

Meliaceae  
EN B1+2c, D1

Zimbabwe

A species apparently endemic to Zimbabwe, where it is rare, and confined to areas of moist forest. Populations occur in Chirinda forest, on *Holo f* near the Chimanimani Mountains and more commonly in forest near Stapleford.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6725, 18965

**Bertholletia excelsa**

Lecythidaceae  
VU A1acd+2cd

Bolivia, Brazil (Acre, Amapá, Amazonas, Maranhão, Mato Grosso, Pará, Rondônia), Colombia, French Guiana, Guyana, Peru, Suriname, Venezuela

A widely occurring emergent of the Amazonian forest, the Brazil nut tree has experienced major declines in its population because of deforestation. One of the greatest concentrations of trees exists in Tocantins valley where various activities, from the construction of the transamazon railway to the building of a reservoir, have brought about a shrinking in the gene pool. An area of 200,000ha in south Pará has been purchased by the government with the aim of settling landless farmers. Trees remaining in the vast cattle ranches of Pará and Acre are neglected and dying. Large natural stands, however, still exist in northern Bolivia and the species is locally abundant in Suriname. There are also various populations in protected areas and on protected corporate properties. The production of Brazil nuts more than halved between 1970 and 1980, apparently because of deforestation. Almost all Brazil nuts consumed around the world still come from wild trees. Little is known about the impact of seed gathering on regeneration, but it clearly can be detrimental under some regimes where agouti, the natural disperser of the the Brazil nut, are hunted or chased away. There have been relatively few successes at establishing plantations. The sustainable harvesting of nuts by indigenous people in extractive forest reserves offers the most promising protection for the remaining natural stands.

**Assessor:** Americas Regional Workshop  
**Refs:** 3791, 4506, 6493, 13947, 15539, 16121, 19170, 19179, 19183, 19196, 19211

**Berteria pauloi**

Rubiacae  
VU B1+2b

Tanzania

A small montane forest tree. It is known from the Uluguru and Udzungwa Mountains. Populations are confined to Muralihara and Lulanda in the Udzungwa Mountains.

**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 10961

**Betula browicziana**

Betulaceae  
LR/ed

Georgia, Turkey

A species of montane areas.

**Assessor:** Güner, A.  
**Refs:** 3489, 4863, 19165

**Betula halophila**

Betulaceae  
CR A1a, B1+2e, C2b, D1

China (Xinjiang)

Only recently discovered, the species occurs in Balkhash where it is the only tree species found in wet alkaline land dominated by herbaceous vegetation. The population was apparently reduced to one sprouting stump when the site was taken over for farming.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

**Betula oxycoenis**

Betulaceae  
VU A1ae

Czechoslovakia, Denmark, Poland, Romania, Russia, Sweden, Ukraine

A taxon of hybrid origin with parent taxa *B. pendula* and *B. szaferi*, the second of which appears to be known only
from specimens in a botanic garden. The hybrid occurs at forest edges and in birch groves wherever the two parent species have met in the past. In Poland the number of localities known has halved and the total population is now estimated to number 350 individuals. Regeneration is generally poor but has been observed in certain places.

**Betula pendula ssp. fontqueri**

**Betulaceae**

EN B1+2c, C2a

Morocco, Spain

A species of dry montane woodland occurring in three mountain systems in Spain, the Sistema Central, Sierra Nevada and Sierra de Cazorla and possibly also the Sierra Morena, and in the Rif Mountains in Morocco. The populations are small and dispersed. The spread of housing developments, as well as decline in water availability, fires, cutting and tourism, pose serious threats. A reintroduction programme is being developed at Cordoba Botanic Garden.

**Assessor:** Vivero, J.L. et al.

**Refs:** 7741

**Betula pendula var. parvibracteata**

**Betulaceae**

EN B1+2c, C2a

Spain

A taxon restricted to areas of lowland dry forest along Río Estena in Montes de Toledo and to the Sierra de Río Frio in the Sierra Morena. Some populations are protected, others are exposed to housing and tourist developments, declines in water availability and fires.

**Assessor:** Vivero, J.L. et al.

**Refs:** 7741

**Betula raddeana**

**Betulaceae**

LR/nt

Georgia, Russia

Scattered throughout pine, mixed or beech forest in the subalpine belt of the central Caucasus range, this widespread species is represented by relatively large population numbers but occupies a range which is declining. The main threats to the species are grazing and cutting for timber and firewood. It is listed as rare (Status 3) in the Red Data Book of Russia and USSR and occurs in several reserves.

**Assessor:** Pirso, G.A.

**Refs:** 1956, 19056

**Betula recurvata**

**Betulaceae**

LR/nt

Turkey

An endemic to Hatila National Park.

**Assessor:** Güner, A. & I. Zielinski

**Refs:** 3489, 19165

**Betula szaferei**

**Betulaceae**

EW

Poland

No wild populations are presently known, but there is a specimen planted in Krakow Botanical Garden. It is also thought to be possible to reconstruct the taxon from the natural hybrid, *B. ocycoenensis*, produced when *B. szaferei* and *B. pendula* are crossed. Although the hybrid still occurs in the wild in several central European countries, the parent species evidently do not still coexist in the wild.

**Assessor:** Boratyński, A.

**Refs:** 2915, 4839

**Betula uber**

**Betulaceae**

CR D1

USA (Virginia)

Described in 1918 and subsequently thought to have become extinct, the species was rediscovered along the banks of Cressy Creek in 1975. The population is found in highly disturbed second-growth forest along a 1 km stretch of the river owned by private and federal government parties. The number of individuals has been reduced from 41 to 11. Protective measures are in place and a large-scale replanting programme has resulted in the establishment of 20 populations of subadult trees. The species is interfertile with *B. lenta* and introduced populations contain hybrids. It is protected by the US Endangered Species Act.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 6013, 19167

**Bhesa ceylanica**

**Celastraceae**

VU A1c

Sri Lanka

A fairly common species occurring in the lowland wet evergreen forests of south-west Sri Lanka.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 17195

**Bhesa nitidissima**

**Celastraceae**

CR B1+2c

Sri Lanka

A rare species restricted to lowland wet evergreen forest in south-west Sri Lanka. During the extensive National Conservation Review forest surveys, only one individual was found in a single forest reserve.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 3181, 17195, 19112

**Bhesa sinica**

**Celastraceae**

CR D1

China (Guangxi)

A relatively recently discovered monoecious species known only from a single tree which apparently has flowered and set seed, although seldom. It grows on a hillside at an altitude of 50m in Nankan near the coast. As far as is known, the tree is given no protection.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 11847

**Bicuba oleifera**

**Myristicaceae**

EN A1c

Brazil

This monotypic genus is quite widespread but restricted to the threatened Atlantic coastal forests of south-east Brazil.

**Assessor:** de Wilde, W.J.J.O.

**Refs:** 18187

**Bidens hendersonensis var. hendersonensis**

**Compositae**

VU D2

Pitcairn Islands

A caulescent shrub or tree endemic to Henderson Island and occurring with var. subspathulata in gaps in the plateau forest. The population of both varieties together is calculated to be about 40,000 individuals.
Regeneration appears to be good, although the species appears to be monocarpic. Henderson Island is a World Heritage Site.

**Bidens hendersoniensis var. oenoensis**

**Compositae**

**CR D1**

Pitcairn Islands

A caulescent tree or shrub endemic to Oeno Island, where it occurs in *Argusia argentea/Pisonia grandis* formations. A botanical expedition in 1991 failed to find any living specimens despite thorough searches. A sterile specimen was found in 1997 in the south-west of the island. Natural vegetation changes may be the cause of the evident scarcity of the species. Henderson Island is a World Heritage Site.

**Assessor:** Waldren, S.

**Refs:** 12900, 13604, 16427

**Bidens hendersoniensis var. subpathulata**

**Compositae**

**CR D1**

Pitcairn Islands

This variety is endemic to Henderson Island and occurs with the type variety in open gaps in the plateau forest. The total number of individuals of the two varieties together has been calculated to be about 40,000. Regeneration appears to be good, although the species is possibly monocarpic. Henderson Island is a World Heritage Site.

**Assessor:** Waldren, S.

**Refs:** 12900, 16427

**Bikbia kaalaensis**

**Rubiaceae**

**EN B1+2c**

New Caledonia

**Assessor:** Jaffré, T. et al.

**Refs:** 10351

**Bikbia lenormandii**

**Rubiaceae**

**EN B1+2c**

New Caledonia

**Assessor:** Jaffré, T. et al.

**Refs:** 10351

**Bikbia pachyphylla**

**Rubiaceae**

**LR/cd**

New Caledonia

**Assessor:** Jaffré, T. et al.

**Refs:** 10351

**Bivinia falbertii**

**Flacouriaceae**

**LR/nt**

Kenya, Madagascar, Mozambique, Zimbabwe

A tree of the evergreen forest, known from restricted localities in Zimbabwe and Mozambique. It is a little more widespread in Kenya in Diani, Mrima and Witu. The Madagascan material could be genetically different.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 6396, 19172

**Blakea brunnea**

**Melastomataceae**

**EN C2a**

Honduras, Panama

In Panama the species occurs in cloud forest in the high mountains of Chiriquí, Bocas del Toro and Veraguas Provinces, occurring between 1500 and 2300m. It appears to be more or less common but the area is influenced by human activities and ranching.

*TROPICOS records the species from Honduras but nothing more is known about this occurrence.

**Assessor:** Mitré, M.

**Refs:** 3913, 7272, 7980, 16772

**Blakea granatensis**

**Melastomataceae**

**CR B1+2c**

Colombia

An endemic to Cundinamarca.

**Assessor:** Calderon, E.

**Refs:** 19069

**Blakea oldemanii**

**Melastomataceae**

**VU B1+2c**

Ecuador

Endemic to Pichincha Province, Ecuador, this small tree species inhabits cloud forest between 2500 and 3250m.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 2989, 6596, 19119

**Bleasdalea papuana**

**Proteaceae**

**EN C2a**

Indonesia (Irian Jaya), Papua New Guinea

An uncommon species of isolated occurrence in lower montane forest on serpentine soils. It has been recorded from the Vogelkop Peninsula and Jayapura in Irian Jaya and the East Sepik and Morobe Provinces in Papua New Guinea. It is threatened by habitat destruction.

**Assessor:** Eddowes, P.J.

**Refs:** 19114

**Blepharidium guatemalense**

**Rubiaceae**

**EN C2a**

Guatemala, Honduras

A rare tree of the Atlantic rainforest. In Honduras, the species is known only from a single collection.

**Assessor:** Nelson, C.

**Refs:** 3977, 4491, 4974, 13995

**Blepharis dhofarensis**

**Acanthaceae**

**VU B1+2c**

Oman, Yemen

A species restricted to escarpment woodland in Dhofar, Oman, extending into Hauf and Ras Partak in southerns Yemen. In Oman, there has been a sharp population rise in the area and a subsequent increase in grazing pressure and the cutting of wood for domestic use. The leaves and fruiting heads of this species are used for animal fodder.

**Assessor:** Ghazanfar, S.A.

**Refs:** 16380

**Blepharispermum hirtum**

**Compositae**

**VU A1cd**

Oman, Yemen

A small tree, sometimes dominant, in areas of escarpment woodland in Dhofar, Oman, and neighbouring south-east Yemen. In some areas, particularly in Oman, where there has been dramatic population increase, the tree is vulnerable to overcutting for domestic use.

**Assessor:** Ghazanfar, S.A.

**Refs:** 16380
**Blepharocalyx cruckshanksii**  
Myrtaceae  
Argentina (Neuquén, Río Negro), Chile (Biobío, Coquimbo, La Araucanía, Los Lagos, Maule, O’Higgins, Santiago, Valparaíso)  
The species occurs in wet or swampy areas in lowland forest. The habitat is under particular pressure in the Metropolitana region (IV–VI) of Chile, mainly from felling and clearing for agriculture and pastoralism. There is some confusion over the taxonomy. It appears that the same taxon occurs in Argentina as two species, *Temu divaricatum* and *T. cruckshanksii*. Whether these are all the same entity remains to be confirmed.  
**Assessor:** González, M.  
**Refs:** 5112, 11140, 16328

**Bobea sandwicensis**  
Rubiaceae  
USA (Hawai‘i)  
A species occurring in dry to moist forest and on open, sparsely vegetated lava flows up to 1220m altitude on Oahu, Molokai, Lanai and Maui. The genus consists of four species endemic to the Hawaiian Islands.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372

**Bobea timonioides**  
Rubiaceae  
USA (Hawai‘i)  
A species of dry to occasionally moist forest up to an altitude of 580m. It has been collected from Puna and south Kona Districts on Hawaii and on the southern slopes of Haleakalā on Maui. There are also collections elsewhere which may be assignable to the species. The genus consists of four species endemic to the Hawaiian Islands.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372

**Bocquillonia arborea**  
Euphorbiaceae  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351

**Bocquillonia castaneifolia**  
Euphorbiaceae  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351

**Bocquillonia longipes**  
Euphorbiaceae  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351

**Boehmeria australis var. dealbata**  
Urticaceae  
New Zealand (Kermadec Is.)  
A small pioneer tree which is confined to Raoul Island of the Kermadec Group, the population on Macauley Island having become extinct. It grows in forest clearings and disturbed areas and appears to be increasing in numbers since the removal of goats.  
**Assessor:** de Lange, P.J.  
**Refs:** 1531, 5563, 9800, 19133, 19134

**Boehmeria jamaicensis**  
Urticaceae  
Jamaica  
A relatively commonly occurring species in secondary thickets, along paths and gullies, generally on limestone.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Bombacopsis quinata**  
Bombacaceae  
Colombia, Costa Rica, Honduras, Nicaragua, Panama, Venezuela  
A taxonomically controversial species, which has a strong possibility of being sunk into *Pachira*. Distributed from southern Honduras to northern Colombia and Venezuela, populations are fragmented within remaining areas of seasonally dry lowland forest. The species is threatened at the provenance level, most notably in the Choluteca valley in Honduras, eastern Nicaragua and northern Colombia. Burning, overexploitation of the timber and increasing settlement and conversion of the habitat for agriculture are the main causes of population and genetic losses. Although occurring in national parks, the habitat is relatively poorly represented in protected areas. Much interest has been generated in replanting programmes and various institutes are involved in research into wild populations and the conservation of representative genetic samples of remaining populations in the form of, for example, clonal seed orchards. The species is grown in small-scale species trials in Kenya and the Solomon Islands.  
**Assessor:** Sandiford, M.  
**Refs:** 4506, 5966, 6317, 12109, 14873, 15037, 19069, 19130, 19152

**Bombax insigne var. polystemon**  
Bombacaceae  
India (Andaman and Nicobar Is. - Nicobar Is.)  
A large tree known only from the type location on Narcadam Island which covers an area of just 12ha. Most of the island is designated as a wildlife sanctuary. Recent explorations have failed to find the taxon.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4799, 7147

**Bombax mossambicense**  
Bombacaceae  
Mozambique  
A species endemic to Mozambique. The extent of the population and its status are not known.  
**Assessor:** Bandeira, S.  
**Refs:** 5117, 18965

**Bombax rhodogaphalon var. tomentosum**  
Bombacaceae  
Mozambique, Tanzania  
A poorly known taxon confined to remnants of moist lowland and submontane coastal forest, where it is relatively common. A population is known from Rungewa in Tanzania and further south in Mozambique up to the mouth of the Zambesi River.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814, 18965

**Bonnetia bolivarense**  
Gutiferae  
Venezuela  
A species known only from a single locality in the summit savanna of Páramo, in Canaima National
Bonnetia cellae
Guttiferae VU D2
Venezuela
A small tree known only from two localities on Cerro Yutaje in Amazonas, where it occurs in the fragile habitat of the *tepui summit. The area is a Natural Monument not otherwise protected.
Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

Bonnetia chimantensis
Guttiferae VU D2
Venezuela
A species known only from three localities in fragile summit savanna in Bolívar: Uaipán-tepui and Aprada-tepui. It occurs in Canaima National Park, where mining and tourism are threatening habitats at lower elevations.
Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

Bonnetia cordifolia
Guttiferae VU D2
Venezuela
A small tree, known only from the type specimen, which was collected in 1974 from the summit savanna of Cerro Guanacoco in Bolívar. The habitat is very fragile, although not imminently threatened. The area is given the status of a National Monument but is otherwise unprotected.
Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

Bonnetia fasciculata
Guttiferae LR/nt
Venezuela
A small tree collected from several localities in summit savanna on the Chimanté Massif in the Bolívar region. It occurs within the Canaima National Park.
Assessor: World Conservation Monitoring Centre
Refs: 5070

Bonnetia holostyla
Guttiferae VU D2
Colombia
A species known only from three localities in Amazonas and Vaupés, Colombia. No habitat information is available.
Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

Bonnetia jauensis
Guttiferae VU D2
Venezuela
A species known only from two localities in fragile *tepui summit savanna in Bolívar. It occurs within Jáu-Sararírímama National Park.
Assessor: World Conservation Monitoring Centre
Refs: 13574

Bonnetia kathleenae
Guttiferae VU D2
Venezuela
A small tree known from only two localities in low forests and thickets on the summits of Cerro Sipapo and Cerro Autana (a single collection) in Amazonas State. Its range is contained within Sipapo Forest Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 5070

Bonnetia lanceifolia
Guttiferae VU D2
Venezuela
A species which only rarely attains the status of a tree. It is known from various localities on swampy flats or savanna on the summit and slopes of a single mountain, Cerro Guaquinima, in Bolívar. The area is a Natural Monument within La Paragua Forest Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 5070

Bonnetia maguireorum
Guttiferae VU D2
Venezuela
This species is known from several localities on the summit plateau and slopes of a single mountain, Cerro de la Neblia inside Serranía de la Neblia National Park, Amazonas State.
Assessor: World Conservation Monitoring Centre
Refs: 5070

Bonnetia multiervia
Guttiferae VU D2
Venezuela
A woodland species known from three *tepui summits in Bolívar State: Ilú-tepui, Yuruná-tepui and Sierra de Lema, all of which are contained within the borders of Canaima National Park. Mining and tourism threaten habitats at lower elevations.
Assessor: World Conservation Monitoring Centre
Refs: 5070

Bonnetia ptariensis
Guttiferae CR D1
Venezuela
A species collected only once, in 1978, from a densely wooded area on the summit of Ptari-tepui, Bolívar, within Canaima National Park. It has not been seen recently despite efforts to locate it. It is clearly extremely rare or perhaps even extinct.
Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

Bonnetia rubicunda
Guttiferae VU D2
Guyana
This species is known only from three localities in exposed summit areas at Roraima, Wokomung and Ayanganna.
Assessor: World Conservation Monitoring Centre
Refs: 5070

Borassodendron machadonius
Palmae VU D2
Malaysia (Peninsular Malaysia), Thailand
This palm species occurs in lowland rainforest up to 500m in northern Peninsular Malaysia and Peninsular Thailand.
The World List of Threatened Trees

Thailand. A number of high-density populations are known but they are somewhat threatened by forest management activities and limestone mining.
Assessor: Saw, L.G.
Refs: 19118

*Borassus madagascariensis*  
Palmae  
VU A1c  
Madagascar  
Endemic to western Madagascar, the species inhabits lowland open forest along rivers, on alluvium. Encroaching settlement is the most imminent threat. Some consider the species to be conspecific with *B. aethiopum*.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 19896, 19118

*Borassus sambiranensis*  
Palmae  
EN A1c  
Madagascar  
This majestic species is endemic to the lowland alluvial plains of north-west Madagascar. It has been poorly collected. Fifteen mature individuals have been found in Sambirano. Although seedlings exist there are no young trees. Fire is suspected to prevent establishment.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 19896, 19118

*Boronella koniamboensis*  
Rutaceae  
VU B1+2c  
New Caledonia  
*Assessor: Jaffré, T. et al.*
Refs: 10351

*Boschia arabica*  
Capparaceae  
VU A1cd  
Oman, Yemen  
The species occurs in the foothills of the escarpment mountains in Dhofar, Oman, and neighbouring south-east Yemen. It is vulnerable to cutting for fodder, timber and firewood. Trees are frequently damaged and regeneration is not evident in several populations. The problem is more acute in Oman, where there has been a sharp influx of people since 1975.
Assessor: Ghazanfar, S.A.
Refs: 16380

*Boswellia aameero*  
Burseraceae  
VU D2  
Yemen (Socotra)  
A dry woodland species, endemic to Socotra. Some *Boswellia* species on Socotra are exploited for the resin but none at a commercial level.
Assessor: Miller, A.G.
Refs: 2354, 19083

*Boswellia elongata*  
Burseraceae  
VU D2  
Yemen (Socotra)  
A dry woodland species, endemic to Socotra. Some *Boswellia* species on Socotra are exploited for the resin but none at a commercial level.
Assessor: Miller, A.G.
Refs: 2354, 19083

*Boswellia ogadensis*  
Burseraceae  
VU D2  
Ethiopia  
A distinct but little-known species which is recorded only from the type locality near Webi Schebele River in Ethiopia. It is confined to a small but relatively undisturbed area of bushland on limestone slopes.
*Assessor: World Conservation Monitoring Centre*
Refs: 1330, 18523

*Boswellia pirottae*  
Burseraceae  
LR/nt  
Ethiopia  
Populations are isolated and restricted to woodland on steep rocky slopes along the Tekeze, Abay and Gibe River systems. The human population and agricultural activities are increasing in the area.
*Assessor: World Conservation Monitoring Centre*
Refs: 1330, 18523

*Boswellia popoviana*  
Burseraceae  
VU D2  
Yemen (Socotra)  
A dry woodland species, endemic to Socotra. Some *Boswellia* species are exploited for the resin but none at a commercial level.
Assessor: Miller, A.G.
Refs: 19083

*Boswellia sacra*  
Burseraceae  
LR/nt  
Oman, Somalia, Yemen (Former South Yemen)  
The largest and most widespread occurrence of the species is in northern Somalia. It is also a dominant component of desert-woodland on the escarpment mountains in Dhofar in Oman, extending into Yemen. The resin provides incense, perfume and medicine. In Oman the tree is so heavily browsed that it rarely flowers or sets seed. Trees appear to be dying and regeneration is poor.
*Assessor: Thulin, M.*
Refs: 6746, 16380

*Boswellia socotrana*  
Burseraceae  
VU D2  
Yemen (Socotra)  
A dry woodland species, endemic to Socotra. Some *Boswellia* species are exploited for the resin but none at a commercial level.
Assessor: Miller, A.G.
Refs: 2354, 19083

*Bottegoa insignis*  
Sapindaceae  
LR/nt  
Ethiopia, Kenya, Somalia  
A rare species of *Acacia–Commiphora* woodland. The largest population occurs in central and southern Somalia. The species extends into small areas of the Ogaden in Ethiopia and north-east Kenya. In places the habitat is under some threat of degradation because of farming activities and overcutting for charcoal production.
*Assessor: Thulin, M.*
Refs: 1330, 6396, 18665
**Bourreria baccata**
Boraginaceae
Jamaica
A locally common species occurring in thickets and woodlands on limestone, mostly in dry coastal or exposed areas.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 6057, 7980

**Bourreria velutina**
Boraginaceae
Jamaica
Very restricted in range, the species occurs in low coastal scrub on dog-tooth limestone in the area of Port Henderson Hill.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 5653, 7980

**Brachyglottis arborescens**
Compositae
New Zealand (North Is.)
Endemic to Three King Islands, this small tree occurs on steep scree slopes. In 1981, three populations of between one and twelve scattered trees were recorded. The islands are protected and goats have been removed.
**Assessor:** de Lange, P.J.
**Refs:** 902, 17637, 19133, 19134

**Brachyglottis huntii**
Compositae
New Zealand (Chatham Is.)
A small tree, endemic to the Chatham Islands, where it has suffered the wholesale destruction of the forest habitat type.
**Assessor:** de Lange, P.J.
**Refs:** 902, 9800, 19133, 19134

**Brachyglottis pentacopa**
Compositae
New Zealand (North Is.)
A small tree or shrub, known only from Mount Percy.
**Assessor:** de Lange, P.J.
**Refs:** 19133

**Brachyglottis perdicoides**
Compositae
New Zealand (North Is.)
A small tree or shrub with a localised distribution only on the east coast of the North Island.
**Assessor:** de Lange, P.J.
**Refs:** 19133

**Brachylaena huillensis**
Compositae
Angola, Kenya, Mozambique, South Africa (KwaZulu-Natal, Mpumalanga, Northern Province), Tanzania, Uganda, Zimbabwe
A timber species occurring in various forest types from upland semi-deciduous forest to coastal dry forest or thicket. The wood is heavily exploited in the wood carving industries in Kenya and Tanzania. Populations in South Africa are secure, with a number of subpopulations occurring in protected areas. Dense stands have been recorded from the northern parts of Kruger National Park. Increased logging in Mozambique may pose a threat.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 4506, 13191, 14687, 19218

**Brachythelytum gleasonii**
Melastomataceae
Ecuador
A shrub or tree endemic to the montane and upper montane cloud forests of the High Andes in Ecuador. Populations are known to occur in the provinces of Imbabura, Pichincha, Cotopaxi, Canar and Azuay.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119

**Brachystegia bakeriana**
Leguminosae
Angola, Zambia
Confining to woodland on Kalahari sands in areas of low rainfall, this species occurs in Mongu and Senanga Districts of western Zambia and adjacent parts of Angola. It is associated with *Baikiaea plurijuga* and is frequently cut for charcoal production. Populations in traditional areas are given a degree of protection.
**Assessor:** Phiri, P.S.M.
**Refs:** 6727, 7550

**Brachystegia kennedyi**
Leguminosae
Cameroon, Nigeria
A tall straight timber tree of local cultural importance, recorded from several localities of lowland rainforest, including Ejaghm, Mamfe, Tabo-agbokem in Cameroon. The largest and most stable population probably occurs in Cross River National Park in Nigeria. Forest outside protected areas has significantly declined because of large-scale logging and clearing for agriculture.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 5595, 7550, 12597, 15251

**Brachystegia nigerica**
Leguminosae
Cameroon, Nigeria
An uncommon and large canopy tree, sometimes gregarious near water. It is known from lowland rainforest in southern Nigeria and the South-West Province of Cameroon. One of the largest remaining areas of forest is in the Oban Hills of Cross River
National Park. Deforestation and clearance for crops have been comprehensive outside protected areas.

**Brachystegia zerkeri**
Leguminosae VU B1+2c
Cameroon
A timber tree restricted to remaining areas of Atlantic forest in Cameroon.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 4977, 7550, 11504, 12597

**Brackenridgea palustris**
Ochnaceae LR/nt
Indonesia (Kalimantan, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Philippines, Singapore
Usually found in lowland peat swamp and *kerangas* forest, the species has come under pressure from habitat loss through most of its range.
Assessor: World Conservation Monitoring Centre
Refs: 5595, 5651, 15251

**Brahea aculeata**
Palmae VU A1c
Mexico (Durango, Sinaloa, Sonora)
An endemic palm of open forest, occurring in very dry areas on rocky soils up to 600m. A local source of forage and fibre, and also of ornamental interest.
Assessor: Quero, H.J.
Refs: 19118

**Brahea edulis**
Palmae EN C1
Mexico (Guadalupe Is.)
Endemic to Guadalupe Island, this ornamental palm tree is confined to dry scrub on rocky volcanic slopes and cliffs on the foggy north-west slope. Approximately 1100 moribund individuals were counted in 1988. Introduced feral goats predate the seeds and are believed to be inhibiting natural regeneration.
Assessor: Johnson, D.
Refs: 19118

**Brahea nitida**
Palmae VU C2a
Guatemala, Mexico (Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca, Sinaloa)
A palm of oak forest, occurring in dry areas on limestone hills between 900 and 1500m. Regeneration is poor.
Assessor: Quero, H.J.
Refs: 19118

**Brahea pimo**
Palmae VU C2a
Mexico (Guerrero, Jalisco, Michoacan, Nayarit)
A Mexican endemic confined to temperate and tropical pine-oak forest in areas near streams and on hillslides in the west. Population numbers are small. Fibre from the leaves is traded in local markets and used locally in handicraft.
Assessor: Quero, H.J.
Refs: 19118

**Brassiaiotis minor**
Araliaceae VU D2
Malaysia (Peninsular Malaysia)
A rare small tree, known from only two collections. The species is confined to the lowland and montane rainforest of Terengganu, where it is protected in Taman Negara National Park.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Brassiaiotis simplex**
Araliaceae VU B1+2c
Malaysia (Peninsular Malaysia)
A small tree of moist hill forest. This rare species is confined to Perak (Ulu Kerling, Slim Hills Forest Reserve at 800m) and Selangor (Ulu Selangor at 400m).
Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Brazzeia longipedicellata**
Scytopetalaceae EN B1+2c
Democratic Republic of Congo, Uganda
Populations are known to occur in upland areas of Bwindi Impenetrable National Park, Ishasha Gorge and Budongo Forest Reserve in Uganda and also in eastern DR Congo.
Assessor: *MUIENR
Refs: 9605, 9837, 10961, 16021

**Bretschneidera sinensis**
Bretschneideraceae EN A1c
China (Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Sichuan, Yunnan, Zhejiang), Taiwan, Viet Nam
Uncommon and thought to be getting rarer, the species is scattered in low to middle elevation forest in ravines and by streams throughout south-east China extending to Lai Chau in Viet Nam and Taibei and Ilan Counties in northern Taiwan. Habitat loss and logging are the main causes of declines. The population in Viet Nam is considered to be threatened and in Taiwan populations are highly localised and contain few individuals. The species is protected under Taiwan's Cultural Heritage Preservation Law. The family is monotypic.
Assessor: Sun, W.
Refs: 848, 1818, 11530, 11847, 19050, 19055

**Brevicea sericea**
Sapotaceae LR/nt
Côte d'Ivoire, Democratic Republic of Congo, Ghana
Scattered in moist semi-deciduous forest from Côte d'Ivoire to DR Congo, this species is relatively well represented in population numbers. Its habitat has substantially reduced in extent because of logging activities and the encroachment of agriculture. It is the only species of the genus and the only close relative of the endangered *Aubregnina tainensis*.
Assessor: Hawthorne, W.
Refs: 8369, 8854, 12061, 12822

**Brexia madagascariensis** ssp. microcarpa
Escalloniaceae VU D2
Seychelles
Scattered individuals occur on the islands of Mahé, Silhouette, Praslin and Felicité. Thought to be once more abundant, the subspecies is now restricted mainly to...
Brosinum utile ssp. magdalenense  
Moraceae  
Colombia  
Endemic to Colombia, this subspecies is restricted to Boyacá.  
Assessor: Calderon, E.  
Refs: 7980, 19069

Brownnea santanderensis  
Leguminosae  
Colombia  
An endemic to Santander.  
Assessor: Calderon, E.  
Refs: 19069

Brownneopsis excelsa  
Leguminosae  
VU C1  
Colombia, Panama, Peru  
At present, the species is known from three isolated localities in Darién in Panama, and from localities in Colombia and Peru. It occurs, occasionally commonly, in lowland semi-deciduous rainforest up to 600m. A small part of the Panamanian population is found in Darién National Park. Elsewhere the habitat is exposed to increasing agriculture and settlement.  
Assessor: Mitré, M.  
Refs: 7272, 7980, 16772

Brownlowia kleinbovdii  
Tiliaceae  
VU D2  
Malaysia (Peninsular Malaysia)  
Known from a single collection, this tree was found in lowland rainforest on Gunung Bubu, Perak.  
Assessor: Chung, R.C.K.  
Refs: 19073

Brownlowia velutina  
Tiliaceae  
EN B1+2c  
Malaysia (Peninsular Malaysia)  
A very rare tree of lowland moist forest known only from Kuala, Terengganu.  
Assessor: Chung, R.C.K.  
Refs: 8464, 19073

Brucea macrocarpa  
Simaroubaceae  
EN B1+2c  
Kenya  
This shrub or small tree is endemic to central Kenya, where it is confined to areas of riverine or swamp forest, such as Kamiti, Thika Falls, Rojwero Swamp and Kibiu. Population numbers are small and the habitat is under pressure from increasing agricultural and settlement of the area. The Plant Conservation Programme in Kenya maintains living and seed collections.  
Assessor: World Conservation Monitoring Centre  
Refs: 6396, 17859

Brugmansia aurea  
Solanaceae  
VU B1+2c  
Ecuador  
This endemic of Ecuador inhabits the montane cloud forest of the High Andes. Currently it is known to occur in Imbabura, Pichincha and Tungurahua.  
Assessor: World Conservation Monitoring Centre  
Refs: 19119, 19120

higher altitudes. Populations once known on Round and Long Island are now extinct. These declines are probably attributable to historical deforestation.  
Assessor: Nature Protection Trust of Seychelles  
Refs: 10610, 19025

Bridelia kurzii  
Euphorbiaceae  
VU B1+2c  
India (Andaman and Nicobar Is. - Andaman Is., Andaman and Nicobar Is. - Nicobar Is.)  
A forest tree with populations on Kamorta Island in the Nicobars and also on the Andaman Islands. Large-scale logging and conversion of the forest for agriculture have caused the loss of the species habitat from much of the Andamans.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799, 7147

Bridelia moonii  
Euphorbiaceae  
VU A1c  
Sri Lanka  
A tree confined to the lowland wet evergreen forests of south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 9176, 17195

Bridelia whitmorei  
Euphorbiaceae  
VU D2  
Malaysia (Peninsular Malaysia)  
Known only from the type collection, the species is found in lowland rainforest in Ulu Tembeling in Pahang. The area falls within a permanent forest reserve.  
Assessor: World Conservation Monitoring Centre  
Refs: 8464, 19073

Bromgiartkentia lanuginosa  
Palmae  
LR/cd  
New Caledonia  
A species of wet forests on schists and siliceous soils, confined to the north-east.  
Assessor: Jaffré, T. et al.  
Refs: 10351, 19118

Brosimum glaziouii  
Moraceae  
EN B1+2bc  
Brazil (Paraná, Rio de Janeiro, Santa Catarina, São Paulo)  
The habitat of this species continues to be rapidly destroyed. Populations are now very restricted and largely confined to the Serra do Mar. It occurs in Tijuca National Park and on the official list of threatened Brazilian plants compiled by IBAMA.  
Assessor: Varty, N.  
Refs: 8815, 15539, 16123

Brosimum utile ssp. darianense  
Moraceae  
VU B1+2c  
Panama  
The Panamanian form of a widely distributed species. It occurs relatively commonly in Kunayala Indigenous Reserve, including Puerto Obaldía on the border with Colombia. Other collections from Colón, Bocas del Toro and Darien have not been identified down to the subspecies level.  
Assessor: Mitré, M.  
Refs: 7980, 12584, 16772

Species Summaries
Brugmansia versicolor
Solanaceae VU B1+2c
Ecuador
A montane cloud forest tree, endemic to the High Andean areas of Pichincha, Ecuador.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Brunellia acostae
Brunelliaceae VU B1+2c
Ecuador
A tree species endemic to the Ecuadorean Andes.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 19119, 19120

Brunellia almaquerenensis
Brunelliaceae EN B1+2c
Colombia
An endemic to Nariño.
Assessor: Calderon, E.
Refs: 4217, 7980, 8869, 19069

Brunellia antioquensis
Brunelliaceae VU B1+2c
Colombia
An endemic to Antioquia.
Assessor: Calderon, E.
Refs: 7980, 19069

Brunellia boqueronensis
Brunelliaceae VU B1+2c
Colombia
An endemic to Antioquia.
Assessor: Calderon, E.
Refs: 7980, 19069

Brunellia cayambensis
Brunelliaceae VU B1+2c
Ecuador
A tree species endemic to the upper montane forest zone of the Ecuadorean High Andes.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 19119, 19120

Brunellia comocladiifolia ssp. boyacensis
Brunelliaceae EN B1+2c
Colombia
An endemic to Boyacá.
Assessor: Calderon, E.
Refs: 7980, 19069

Brunellia darienensis
Brunelliaceae EN C2a
Colombia, Panama
The few collections known have come from the Cordillera del Darién in Panama, and only recently from Colombia. The species is scarce and highly restricted in distribution, occurring in evergreen rainforest between 1000 and 1500m. Although the species range is entirely contained within a national park, there is still some risk of deforestation.
Assessor: Mitré, M.
Refs: 7980, 16772

Brunellia ecuadorensis
Brunelliaceae VU B1+2c
Ecuador
A tree species endemic to the montane forest zone of the Ecuadorean High Andes.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 19119, 19120

Brunellia elliptica
Brunelliaceae EN B1+2c
Colombia
An endemic to Norte de Santander.
Assessor: Calderon, E.
Refs: 7980, 19069

Brunellia farallonesensis
Brunelliaceae LR/cd
Colombia
Although restricted to a small area near Cali, the species is not threatened. The area is steeply sloping and unsuitable for agriculture or other uses. It is also protected within Parques de Cali National Park.
Assessor: Calderon, E.
Refs: 7980

Brunellia grandiflora ssp. grandiflora
Brunelliaceae LR/nt
Peru
Relatively widespread, this subspecies occurs on the eastern slopes of the Andes up to 2000m altitude in disturbed areas and *terra firme* forest.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Brunellia inermis var. inermis
Brunelliaceae LR/nt
Peru
A variety of middle elevation forest currently restricted to the departments of Cuzco, Huánuco and Pasco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Brunellia littlei ssp. caucana
Brunelliaceae EN B1+2c
Colombia
An endemic to Cauca.
Assessor: Calderon, E.
Refs: 7980, 19069

Brunellia macrophylla
Brunelliaceae VU B1+2c
Colombia
A Colombian endemic, occurring only in Caquetá and Huila.
Assessor: Calderon, E.
Refs: 7980, 19069

Brunellia mori
Brunelliaceae EN C2a
Panama
A cloud forest species, which is considered to be endemic to Panama but possibly also exists in Costa Rica. Only a few collections are known from areas of forest between 1000 and 2500m in the Central Cordillera. There are no protective measures in place and the habitat is somewhat exposed to clearing for settlements and agriculture.
Assessor: Mitré, M.
Refs: 7980, 16772
**Brunellia occidentalis**
Bruneliaceae  
Colombia  
An endemic to Valle.  
Assessor: Calderon, E.  
Refs: 4217, 7980, 8869, 19069

**Brunellia ovalifolia**
Bruneliaceae  
Ecuador  
A tree species endemic to the High Andes of Ecuador.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 19120

**Brunellia pauciflora**
Bruneliaceae  
VU B1+2c  
Ecuador  
A tree species restricted to a narrow altitudinal range in the High Andes of Ecuador.  
Assessor: World Conservation Monitoring Centre  
Refs: 19119

**Brunellia penderiscana**
Bruneliaceae  
Ecuador  
A tree species endemic to Antioquia.  
Assessor: Calderon, E.  
Refs: 7980, 19069

**Brunellia racemifera**
Bruneliaceae  
VU B1+2c  
Colombia  
An endemic to Cundinamarca.  
Assessor: Calderon, E.  
Refs: 7980, 19069

**Brunellia rubifera**
Bruneliaceae  
Colombia  
An endemic to Caquetá.  
Assessor: Calderon, E.  
Refs: 7980, 19069

**Brunellia subessilis**
Bruneliaceae  
VU B1+2c  
Colombia  
An endemic to Antioquia.  
Assessor: Calderon, E.  
Refs: 7980, 19069

**Brunellia zamorensis**
Bruneliaceae  
VU B1+2c  
Ecuador  
An endemic tree species of the Ecuadorean High Andes.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 19119, 19120

**Brunfelsia jamaicensis**
Solanaceae  
VU B1+2c  
Jamaica  
A montane forest species occurring commonly near the summit of John Crow Peak, scattered in southern catchments and rare in northern catchments. Its restriction to altitudes above 1400m has led to the species escaping much of the disturbance at lower elevations, although soil erosion and invasive plants still cause habitat degradation.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 12564

**Brunfelsia membranacea**
Solanaceae  
VU B1+2c  
Jamaica  
The species occurs locally in thickets on limestone in St Andrew and St Catherine Parishes.  
Assessor: Kelly, D.L.  
Refs: 5653, 19085

**Brunfelsia portoricensis**
Solanaceae  
EN C1  
Puerto Rico  
This small tree or tall shrub is located in at least 15–20 sites of wet forest below 600m. There are about 300 individuals in total. Sexual reproduction appears to be successful. The major threat to the habitat is the establishment of commercial and forestry plantations.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 17124

**Brunfelsia splendida**
Solanaceae  
VU B1+2c  
Jamaica  
Known from occurrences in St Catherine, Clarendon and Trelawny, the species is uncommon and confined to woodland on limestone.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

**Buchanania barberi**
Anacardiaceae  
CR B1+2c  
India (Kerala)  
A hill forest species, known only from the type locality at Nadari, Travancore District. It has not been recorded since colonial times.  
Assessor: World Conservation Monitoring Centre  
Refs: 14276, 19144

**Buchanania lanceolata**
Anacardiaceae  
VU B1+2c  
India (Kerala)  
A tree of lowland dipterocarp forest, known from a few scattered collections in Travancore and Quilon Districts.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

**Buchanania platyphylla**
Anacardiaceae  
VU d2  
India (Andaman and Nicobar Is. - Andaman Is.)  
A tall tree of evergreen forest, apparently known only from the type collection.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799

**Buchenavia hoehneana**
Combretaceae  
VU B1+2d, D1  
Brazil (Bahia, Rio de Janeiro, São Paulo)  
In the last 20 years of herbarium collections and records, the species is notably scarce. It is restricted to remaining areas of Atlantic forest on the road to Engenheiro Passos in São Paulo, in Itatiaia National Park in Rio de Janeiro and in Belo Monte and Canaívas in Bahia. The record from Itatiaia dates back to 1941.  
Assessor: Silva, N.M.F.  
Refs: 7655, 19098, 19105

**Buchenavia iguaretensis**
Combretaceae  
EN B1+2c  
Brazil (São Paulo)  
First described in 1981 from a specimen taken from

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**Species Summaries**
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scrubby vegetation in Santa Izabel, the species is poorly known. Only two additional collections are recorded, from earlier dates, one of unknown origin and the other from Miguel Arcanjo.

Assessor: Silva, N.M.F.
Ref: 19105

*Buchenavia kleinii*
Combretaceae
Brazil (Rio de Janeiro, Rio Grande do Sul, Santa Catarina, São Paulo)

Assessor: Silva, N.M.F.
Ref: 7655, 9173, 19105

*Buchenavia pabstii*
Combretaceae
Brazil (São Paulo)

Assessor: Silva, N.M.F.
Ref: 19105

*Buchenavia rabelliana*
Combretaceae
Brazil (Espírito Santo, São Paulo)

Assessor: Silva, N.M.F.
Ref: 19105

*Bucida ophitica*
Combretaceae
Cuba

Assessor: Areces-Mallea, A.E.
Ref: 19149

*Buddleja formosana*
Buddlejaceae
Taiwan

Assessor: Pan, F.J.
Ref: 3295, 19050

*Bulnesia carrapo*
Zygophyllaceae
Colombia

Assessor: Calderón, E.
Ref: 19069

*Bulnesia sarmientoi*
Zygophyllaceae
Argentina, Bolivia, Paraguay

Assessor: Areces-Mallea, A.E.
Ref: 7980, 15037, 16772

*Bunchedia diphylla ssp. brevisurcularis*
Malpighiaceae
Panama

A lowland rainforest species, so far only known from Colón and Darién, being a little more abundant in the latter. Small populations are protected in Darién National Park. It is also suspected to be in Kunayala Indigenous Reserve and perhaps also Colombia. Occurrences outside protected areas are exposed to habitat clearance.

Assessor: Mitré, M.
Ref: 7980, 15037, 16772

*Bunchosia hartwegiana*
Malpighiaceae
Colombia, Panama

In Colombia the species is known from the Chocó and Antioquia, appearing uncommon in both places. In Panama, all of the collections are identified under the variety *brevisurcularis*, which is considered threatened. Further work is needed to consolidate whether the separation into different varieties is valid.

Assessor: Mitré, M.
Ref: 15037, 16772

*Bunchosia hartwegiana var. brevisurcularis*
Malpighiaceae
Panama

Endemic to Panama, this variety is known from a few collections gathered in the province of Darién, including Darién National Park, and from a very sparse distribution in the coastal zone of Colón Province, where it is under particular threat from human activities.

Assessor: Mitré, M.
Ref: 15037, 16772

*Bunchosia jamaicensis*
Malpighiaceae
Jamaica

Populations are restricted to woodland on limestone in Trelawny and St Ann.

Assessor: World Conservation Monitoring Centre
Ref: 6057, 7980

*Bunchosia linearifolia*
Malpighiaceae
Cuba

An endemic shrub that rarely attains the size of a small tree. It is occasionally found in the dry, thorny shrubwoods on limestone in south-eastern Cuba.

Assessor: Areces-Mallea, A.E.
Ref: 11403, 18485, 19149

*Bunchosia tutensis*
Malpighiaceae
Panama

Known only from two collections from the Cerro Tute in Veraguas, the species appears to be confined to an area which is not botanically well studied.

Assessor: Mitré, M.
Ref: 7980, 15037, 16772

wood. One of the last and also the largest unexploited populations is said to occur in the newly established Kaa-lya del Gran Chaco National Park, which covers 34,410km², in south-east Bolivia.

Assessor: World Conservation Monitoring Centre
Ref: 11140, 11936, 19136, 19170
Burckella soroil
Sapotaceae
Papua New Guinea (North Solomons, Papua New Guinea), Solomon Islands (South Solomon)
Confined to the islands of Bougainville in the North Solomons and Guadalcanal in the South Solomons, this timber tree is found mainly in primary lowland rainforest. It is threatened by logging activities and overexploitation, especially as it occurs in a region subject to heavy logging activities.
Assessor: Eddowes, P.J.
Refs: 19114

Burkianthus malaccensis
Rutaceae
Indonesia (Sumatra), Malaysia (Peninsular Malaysia (ex), Sarawak)
A small tree from a monotypic genus. Solitary trees or small groups of trees occur on stream banks, slopes and on ridge tops in primary and secondary forest in lowland areas. In Sarawak, the species is known from a single specimen collected in 1961 from primary riparian forest in the Labang Forest Reserve, Bintulu. The species is now extinct in Peninsular Malaysia.
Assessor: World Conservation Monitoring Centre
Refs: 14541, 19017

Burretiodendron esquirii
Tiliaceae
China (Guangxi, Guizhou, Yunnan), Myanmar, Thailand
A tree of lowland deciduous forest, occurring up to 1100m. The timber is commercially useful and rates of logging, as well as general habitat loss, have caused considerable declines in the Chinese part of the range. Information is needed on populations in Thailand and Myanmar.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 2891, 11847, 19055

Burretiodendron hsiennmu
Tiliaceae
China (Guangxi, Yunnan)
The centre of the species' distribution is in south-west Guangxi, extending into limestone areas of Yunnan. Populations in Viet Nam represent a separate species. A slow-growing tree, it is found, sometimes as a dominant component, in lowland semi-deciduous woodland. Regeneration is observed to be strong in forest gaps. The timber is highly valued, and in many parts of its range mature trees have become very scarce or been eliminated. There are several occurrences within nature reserves, including Ba Be National Park in Viet Nam. Habitat loss and degradation have also contributed to the decline.
Assessor: Sun, W.
Refs: 5054, 11530, 11847, 13838, 15357, 19055

Burretiodendron tonkinense
Tiliaceae
Viet Nam
The species is now thought to be restricted to undisturbed forest areas in the Rondo Forest Reserve (140km²). Severe disturbance of the habitat has been caused by past activities, including logging of the largest East African population of Milicia excelsa, planting of exotic timbers, shifting cultivation and wood collection. Current forest management activities are unintentionally discouraging local exploitation.
Assessor: Love, J. & G.P. Clarke
Refs: 3925, 16796

Bursera aromatica
Burseraceae
Jamaica
Populations are confined to hillside woodland on limestone only in the parishes of Hanover, St James and Trelawny.
Assessor: World Conservation Monitoring Centre
Refs: 401, 7980

Bursera hollickii
Burseraceae
Jamaica
Known only from St Catherine Parish, the species is confined to a few areas of dry thicket on rocky limestone hills. Collections are recorded from Port Henderson and Great Goat Island.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653

Bursera lunanii
Burseraceae
LR/nt
Jamaica
A species which is locally common in dry thickets and woodlands on limestone near the sea.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Bursera tonkinensis
Burseraceae
VU B1+2c
Viet Nam
A rare species restricted to primary and secondary evergreen forest on limestone mountains in Nam Ha (Phu Li), Ninh Binh (Pho Sau) and Ha Tay (Chua Huong). Its status and distribution elsewhere are poorly known.
Assessor: World Conservation Monitoring Centre
Refs: 848

Bussea eggingii
Leguminosae
EN B1+2c
Tanzania
The species is now thought to be restricted to undisturbed forest areas in the Rondo Forest Reserve (140km²). Severe disturbance of the habitat has been caused by past activities, including logging of the largest East African population of Milicia excelsa, planting of exotic timbers, shifting cultivation and wood collection. Current forest management activities are unintentionally discouraging local exploitation.
Assessor: Love, J. & G.P. Clarke
Refs: 3925, 16796

Bussea xylocarpa
Leguminosae
VU B1+2, d2
Mozambique
This species is confined to a small area of woodland along the Zambezi River, which is currently being cleared for agriculture. Further indications as to the extent of the species location and its reduction may lead to a more serious status of threat.
Assessor: Bandeira, S.
Refs: 5117, 7550

Butea monosperma var. lutea
Leguminosae
DD
India
A small tree of dry deciduous forest, occurring in central India and Orissa, Gujarat and Maharashtra. About 20 fragmented populations are known within a range of less
than 20,000 km². It is not known if population or habitat declines have taken place.

**Assessor:** CAMP Workshops on Medicinal Plants in India

*Refs:* 19209

**Buxus eriospatha**

**Palmae**

Brazil (Paraná, Rio Grande do Sul, Santa Catarina)

A small palm tree of open forest and *Anacardia* forest between 700 and 1200m, restricted to southern Brazil.

Wild populations are declining, but the species is widely cultivated.

*Assessor:* Noblick, L.

*Refs:* 19118

**Buxus purpurascens**

**Palmae**

Brazil (Goias)

A small palm tree known only from an area of *cerrado* in Goias. The only confirmed population occurs near Jatia, where individuals are doing well in an area protected by the Brazilian military. Trees in nearby pastureland are not regenerating. Seed predation by bean weevils is very high.

*Assessor:* Noblick, L.

*Refs:* 19118

**Buxus arborea**

**Buxaceae**

Jamaica

A Cockpit Country endemic found in a confined area of remaining woodland on limestone in St James and Trelawny.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 401, 5653, 7980

**Buxus citrifolia**

**Buxaceae**

Colombia, Panama, Venezuela

The few reports of the species in Panama indicate that it is uncommon and restricted to a narrow range, occurring in the Canal area and in the provinces of Panamá and Colón. In Colombia it is known from Cartagena and Sucre, where it appears to be rare. The larger Venezuelan population is recorded under the genus *Tricera*. There are further suggestions of conspecific taxa occurring in the Caribbean.

*Assessor:* Mitré, M.

*Refs:* 3156, 7272, 16772

**Buxus colchica**

**Buxaceae**

Azerbaijan, Georgia, Russia, Turkey

This understory tree is a common species in ravinine moist forest. It is in decline because of forest clearance and environmental changes.

*Assessor:* Firsov, G.A.

*Refs:* 1926, 19056

**Buxus nyasica**

**Buxaceae**

Malawi

A Malawi endemic known from two forest reserves 70km apart. Near Blantyre the species occurs on Mount Soche in a forest that has been reduced to 1.5km² and continues to suffer from illegal logging. A population also occurs on Mount Chese in the Mulanje Massif, where the forest is also much reduced by illegal activities and encroaching agriculture.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 5651, 7058, 17610

**Buxus obusifolia**

**Buxaceae**

Kenya, Tanzania

Typically a shrub, this species extends in a range from south-east Kenya through to south-east Tanzania, confined to pockets of dry coastal forest or wooded bushland.

*Assessor:* Lovett, J. & G.P. Clarke

*Refs:* 3356, 5811, 6396, 12067

**Buxus vahlii**

**Buxaceae**

Jamaica, Puerto Rico, Virgin Islands (US) (ex)

A shrub or tree of coastal limestone hills, restricted to forested ledges and ravines. Reports of the species occurring on St Croix in the US Virgin Islands date to the 1700s and the occurrence in Jamaica is also doubtful. In Puerto Rico, there are two locations: the nuclear power plant site at Rincon and Hato Tejas, Bayamon, consisting of 16 and 12 plants respectively. The Hato Tejas population was larger but was partially destroyed by limestone mining in the 1980s. The remaining individuals are threatened with development of a coal-fueled power plant, further mining and industrial or commercial developments. The species is protected by the US Endangered Species Act.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 7980, 14424, 17124, 19167

**Byrsonima horneana**

**Malpighiaceae**

DD

Puerto Rico

A very rare tree, localised on moist slopes in western Puerto Rico.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 3786, 5988, 7931, 17124

**Byrsonima nemoralis ssp. dressleri**

**Malpighiaceae**

Panama

Although the species is known from various sites in Panama and north Colombia, this subspecies is considered endemic to the Cordillera de Cerro Jefe, to the north-east of Panamá city. It is uncommon and in Cerro Azul has experienced considerable habitat loss through urban and industrial development. Most of the populations in Cerro Jefe are protected within Chagres National Park.

*Assessor:* Mitré, M.

*Refs:* 7272, 16772

**Byrsonima ophiticola**

**Malpighiaceae**

DD

Puerto Rico

As with *B. horneana* the species is rare and scattered on moist slopes in western Puerto Rico.

*Assessor:* World Conservation Monitoring Centre

*Refs:* 3786, 5988, 7931, 17124
**Byrsophyllum ellipticum**
Rubiacae
Sri Lanka
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 17195

**Byrsophyllum tetrandrum**
Rubiacae
India (Kerala, Tamil Nadu)
A small tree, known only from a few localities of submontane forest in the Agastyamalai Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but about 1000km² of forest remain protected within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 10733, 19144

**Bytneria iworororensis**
Sterculiacae
Côte d'Ivoire
This species is only known from the herbarium specimen collected in 1896 from the edges of moist semi-deciduous forest.
Assessor: Assi, A.
Refs: 12822

**Cabrolea canjerana ssp. polytricha**
Meliaceae
Brazil (Goiás, Minas Gerais)
The taxon is confined to a small area of submontane *cerrado*, where it is relatively safe from threat.
Assessor: Pires O'Brien, J.
Refs: 5942, 7980, 12281

**Caesalpinia echinata**
Leguminosae
Brazil (Alagoas, Bahia, Espírito Santo, Minas Gerais, Paraíba, Pernambuco, Rio de Janeiro, Rio Grande do Norte, Sergipe)
The exploitation of this species as a dyewood dates back to 1501. The original collectors of the dyewood were called *brasileiros*, after whom the country is now named. Synthetic dyes only became available in 1875, by which time dramatic population declines had already taken place and continued to occur until the 1920s. Natural stands were almost completely destroyed but some populations remained in a few areas on the coastal plain, where they have since suffered from deforestation. The species is recorded in reserves in Bahia and Pernambuco. There is also a reintroduction programme at Linheas Reserve and the species is listed on the official list of threatened Brazilian plants by *IBAMA*.
Assessor: Verty, N.
Refs: 8815, 15539, 16123, 19212

**Caesalpinia kauaiensis**
Leguminosae
USA (Hawaii)
Currently fewer than 50 individuals are known. They are restricted to populations found in dry and moist forest in the Waianae Mountains on Oahu, Hualalai on Hawaii and on Lanai. Populations on Maui and Kauai are now apparently extinct. Various factors have contributed to the decline, from overexploitation and habitat clearance to damage caused by feral animals and invasive plants. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372

**Caesalpinia nhatrangense**
Leguminosae
Viet Nam
Apparently endemic to Viet Nam, the species is known only from two localities, Ninh Hòa and Điên Khánh in Khánh Hòa on the east coast.
Assessor: World Conservation Monitoring Centre
Refs: 848

**Caesalpinia paraguariensis**
Leguminosae
Argentina (Catamarca, Chaco, Córdoba, Corrientes, Formosa, Jujuy, La Rioja, Mendoza, Misiones, Salta, San Juan, San Luis, Santa Fé, Santiago del Estero, Tucumán), Bolivia, Brazil, Paraguay
Widely occurring and relatively common in the Chaco region, the species is found in lowland deciduous forest. It reaches the margins of its range in Brazil, where it is confined to Porto Murtinho. In Bolivia the species is well represented in herbarium collections. Throughout its range it is exploited as a popular source of timber, but the most serious threat is habitat loss.
Assessor: Americas Regional Workshop
Refs: 1262, 5112, 11936, 13661, 15377, 19170, 19179

**Calatola colombiana**
Icacinaceae
Colombia
A poorly known species, thought to occur in Valle.
Assessor: Calderon, E.
Refs: 7980, 19069

**Calliandra comosa**
Leguminosae
Jamaica
Known only from Manchester and Trelawny, the species is found on jagged limestone cliffs. The somewhat inaccessible distribution of the species habitat is likely to have impeded excessive clearing.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

**Calliandra decrescens**
Leguminosae
Peru
A species known only from the type collection taken from lowland Amazonian forest in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Calliandra paniculata**
Leguminosae
Jamaica
A species of scrub and woodland on arid rocky limestone, occurring in low-lying parts of Manchester and Clarendon Parishes. The woodland has been extensively destroyed in this area since 1980, mainly for the production of charcoal.
Assessor: Kelly, D.L.
Refs: 5653, 19085
**Calliandra pilosa**
Leguminosae  
VU B1+2c  
Jamaica  
This species is endemic to Manchester Parish, where it is confined to arid limestone rocks.
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

**Calliandra tumbeziana**
Leguminosae  
VU D2  
Peru  
A species of submontane forest currently known only from the Tumbez delta in the north-west.
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Callicarpa ampla**
Verbenaceae  
CR C2a  
Puerto Rico, Virgin Islands (US)  
A seemingly dioecious tree of lower montane moist forest. In Puerto Rico there is a population of about 30 individuals scattered in six or seven sites, mostly contained within state forest land. Evidence of natural regeneration is absent and seed germination trials have not been successful.
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 17124, 17540

**Callitris baileyi**
Cupressaceae  
VU A1c  
Australia (New South Wales, Queensland)  
As with all *Callitris* species, populations have declined because of previous exploitation. Although protection is afforded in various national parks, the species is vulnerable to grazing, logging and fire in the rest of its range.
Assessor: SSC Conifer Specialist Group  
Refs: 374, 15615, 17200

**Callitris drummondii**
Cupressaceae  
VU A1c  
Australia (Western Australia)  
Populations in the south-west appear to be under threat from fire and overgrazing.
Assessor: SSC Conifer Specialist Group  
Refs: 4581, 8843, 13041

**Callitris monticola**
Cupressaceae  
VU A1c  
Australia (New South Wales, Queensland)  
A species which is restricted in range and under some threat from logging, fires and grazing.
Assessor: SSC Conifer Specialist Group  
Refs: 707, 15615, 17200

**Callitris neocaledonica**
Cupressaceae  
LR/cd  
New Caledonia  
A shrub usually occurring in small populations which are limited to high altitude cloud forest in the southern ultramafic massif. Slow growth and regeneration rates have been observed and there are some threats from fires and tourism. Populations are effectively protected in Montagne des Sources and also Mont Humboldt Botanical Reserve.
Assessor: SSC Conifer Specialist Group  
Refs: 9631, 12630

**Callitris oblonga**
Cupressaceae  
VU A1c  
Australia (New South Wales, Tasmania)  
Previously known only from Tasmania, the species has been recently found in New South Wales (NSW), although this could be a distinct taxon. The Tasmanian populations are restricted to a small area of sclerophyllous scrubland (<100km^2) along the north-east coast and about 12,000 mature trees have been counted in NSW along intermittent streams. Fires and conversion of the habitat to agriculture are the main threats to the species. Some small populations occur inside protected areas.
Assessor: SSC Conifer Specialist Group  
Refs: 707, 17200

**Callitris roei**
Cupressaceae  
VU A1c  
Australia (Western Australia)  
Populations in the south-west appear to be under threat from logging.
Assessor: SSC Conifer Specialist Group  
Refs: 4581, 8843, 13041

**Callitris sulcata**
Cupressaceae  
EN B1+2c  
New Caledonia  
Occurring in mixed woodlands in valley bottoms, the species is known from only a few sites in the north which are prone to wild fires and disturbance. One site in the Comboui valley has been logged. Regeneration has also been noted as poor. No populations are properly protected.
Assessor: SSC Conifer Specialist Group  
Refs: 10351, 12630

**Calocedrus formosana**
Cupressaceae  
EN B1+2b  
Taiwan  
Occurring in mixed evergreen forest, sometimes cloud forest, at medium elevations, the species is scattered in isolated populations in the central and northern parts of Taiwan. Part of the range is covered by Shueipa National Park. In other areas felling and forest management activities pose threats.
Assessor: Lu, S.Y. & F.J. Pan  
Refs: 2106, 6469, 11191, 19050, 19051

**Calocedrus macrolepis**
Cupressaceae  
VU A1c  
China (Guangdong - Hainan, Guangxi, Guizhou, Yunnan), Myanmar, Thailand, Viet Nam  
Throughout the species range, populations are rapidly being reduced to the more inaccessible areas where logging and cutting are limited. It is still found commonly in some valleys in Yunnan. In Viet Nam the populations are small (EN D), but some are contained within protected areas, such as Ba Vi National Park and Bidoup Nature Reserve.
Assessor: SSC Conifer Specialist Group  
Refs: 374, 848, 1818, 11530, 13041, 15357

**Calodendrum eickii**
Rutaceae  
CR B1+2c  
Tanzania  
Known only from the West Usambara Mountains, the species occurs in montane *Juniperus* forest, which has been reduced to 11% of its original cover because of the establishment of commercial pine plantations and the
excision of the Shume-Magamba Forest Reserve for local cultivation.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Calococa lophocarpa
Flacourtiaceae
VU D2
Cameroon
A small tree of montane forest descending to 400 m. Occurrences have been recorded at Bangem, Mamfe, Bakossi Mountains and Mount Cameroon. Expanding agriculture is the most serious threat to the habitat.
Assessor: World Conservation Monitoring Centre
Refs: 12597, 18965

Calophyllum acutiputamen
Guttiferae
CR B1+2abcde
Papua New Guinea
Known only from Rossel Island, this canopy species is found on ridges in colline forest. The fragile ecosystem of Rossel Island is possibly threatened by logging and mining for copper and gold.
Assessor: Eddowes, P.J.
Refs: 19031, 19032

Calophyllum bifurcatum
Guttiferae
VU D2
Indonesia (Irian Jaya)
A poorly known species collected only once from Japen Island.
Assessor: Stevens, P.F.
Refs: 19031

Calophyllum bracteatum
Guttiferae
VU A1c
Sri Lanka
A scattered species restricted to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Calophyllum brassii
Guttiferae
DD
Indonesia (Irian Jaya), Papua New Guinea
A montane forest tree known only from the Western District in Papua New Guinea and Irian Jaya mainly between 400 and 900 m altitude. Sterile material may be incorrectly assigned to this species.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Calophyllum carrii var. carrii
Guttiferae
VU D2
Papua New Guinea
A tree of lower montane rainforest that is found in the Central and Northern Provinces between 1050 and 1525 m.
Assessor: Stevens, P.F.
Refs: 19031

Calophyllum carrii var. longigemmatum
Guttiferae
VU B1+2abcde
Indonesia (Irian Jaya), Papua New Guinea
This variety is found in lowland rainforest up to 300 m altitude near Jayapura, Irian Jaya and in the West Sepik District of Papua New Guinea. It is a fine timber tree restricted to areas being extensively logged and therefore is threatened by felling and habitat loss.
Assessor: Eddowes, P.J.
Refs: 19031, 19113, 19114

Calophyllum caudatum
Guttiferae
VU D2
Indonesia (Irian Jaya)
A small tree collected only once, from Dalmar in Geelvink Bay.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Calophyllum chapelliier
Guttiferae
VU A1cd
Madagascar
The species occurs in lowland rainforest in a range extending from Vohemar to Manakara. The forest type is much reduced in extent. The wood is useful and the species is a focus of silvicultural studies.
Assessor: World Conservation Monitoring Centre
Refs: 6161

Calophyllum collinum
Guttiferae
DD
Indonesia (Irian Jaya), Papua New Guinea
Endemic to New Guinea, this species is found in lowland and hill forest up to an elevation of 500 m in the Snow Mountains, Irian Jaya and the Western and Morobe Districts of Papua New Guinea. These areas are poorly collected. It is suspected that the timber is traded as 'Calophyllum' in Papua New Guinea.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Calophyllum confusum
Guttiferae
VU B1+2abcde
Solomon Islands (South Solomon)
A tree known only from the New Georgia group in well-drained, lowland, primary rainforest.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

Calophyllum cordato-oblongum
Guttiferae
VU A1c, B1+c
Sri Lanka
This uncommon tree is restricted to the lowland rainforests of south-west Sri Lanka. The species has not been found in the Hinidumkanda MAB Reserve even though the area has been carefully surveyed, possibly due to disturbance caused by illegal felling. It has, however, been recorded recently during the extensive National Conservation Review forest surveys in several forest reserves and proposed reserves.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 16916, 16943, 17195

Calophyllum cuneifolium
Guttiferae
CR B1+c
Sri Lanka
A locally common tree restricted to upper montane rainforest in Sri Lanka. Only 31 km² of montane forest remains in Sri Lanka. This species was not found during the extensive National Conservation Review forest surveys.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796, 19106, 19112
Calophyllum havilandii
Guttiferae  VU A1cd+2cd
Brunei, Indonesia (Kalimantan), Malaysia (Sarawak, Sabah)
Restricted to north-west Borneo, this peat swamp species is cut for its bintangor timber. It is locally used for planks.
Assessor: World Conservation Monitoring Centre
Refs: 14573, 18327

Calophyllum heterophyllum
Guttiferae  DD
Indonesia (Irian Jaya), Papua New Guinea
This species is so far known from the Vogelkop Peninsula and the Snow Mountains in Irian Jaya and in the Western Province in Papua New Guinea. This species appears to grow into canopy trees on low ridges at 100 m altitude but forms only shrubs and treelets on poor loam soils at 1200 to 1300 m. This species is very poorly known and probably undercollected. The taxonomic limits of this species are also unknown.
Assessor: World Conservation Monitoring Centre
Refs: 19031, 19113

Calophyllum hiraisum
Guttiferae  DD
Indonesia (Irian Jaya)
A locally abundant small tree confined to the Arfak Mountains and the Wessel Lake region. It occurs mainly in Nannotaxus–conifer forest.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Calophyllum insularum
Guttiferae  EN B1+2c
Indonesia (Irian Jaya)
This tree is known only from the islands in Geelvink Bay, where it occurs in colline rainforest at approximately 200 m altitude. Because of its restricted distribution and the possibility of exploitation, this species is considered seriously endangered.
Assessor: Eddowes, P.J.
Refs: 19031, 19113, 19114

Calophyllum laticostatum
Guttiferae  DD
Papua New Guinea, Philippines?
A large tree found in well-drained lowland or lower montane rainforest. This species is possibly traded for its Calophyllum timber in Papua New Guinea.
Assessor: Stevens, P.F.

Calophyllum macrophyllum
Guttiferae  VU D2
Indonesia (Moluccas)
A very poorly known species of Gebeh Island, known only from the type collection made last century.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Calophyllum mooni
Guttiferae  VU A1c
Sri Lanka
A species scattered in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 17105

Calophyllum morobense
Guttiferae  EN B1+2c
Papua New Guinea
Endemic to Morobe Province, this tree occurs in lowland rainforest on alluvium, where it is under threat mainly from logging.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

Calophyllum nubicola
Guttiferae  EN B1+2c
Panama
Originally the species was known only from Cerro Jefe but it has since been recorded close by in Kunayala Indigenous Reserve. The species, occurring in lowland semi-deciduous rainforest, is fairly common and its range is almost completely contained within protected areas. Outside these areas the habitat is declining because of increasing settlement of the land.
Assessor: Mitré, M.
Refs: 7980, 15037, 16772

Calophyllum obscurum
Guttiferae  VU B1+2c
Solomon Islands (South Solomon)
Restricted to primary forest on ridges or flooded coral platforms, this tree is found on the islands of Choiseul, Santa Isabel and Malaita.
Assessor: World Conservation Monitoring Centre
Refs: 19031, 19113

Calophyllum parvifolium
Guttiferae  VU D2
Indonesia (Irian Jaya, Moluccas)
A montane forest species known from only two specimens, one from Gebeh Island of the Moluccas and the other from Waigeo Island of Irian Jaya.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Calophyllum persimile
Guttiferae  DD
Indonesia (Irian Jaya), Papua New Guinea
A rainforest tree occurring up to 560 m altitude near Kiunga. This species is poorly known and variation is seen in the sterile material. The timber is probably traded as calophyllum in Papua New Guinea.
Assessor: Stevens, P.F.
Ref: 14573, 19031, 19113

Calophyllum piluliferum
Guttiferae  DD
Indonesia (Irian Jaya), Papua New Guinea
A tree found in forest in or near swamps below 40 m altitude in Digul, Irian Jaya and the Western District of Papua New Guinea; this area is poorly collected.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Calophyllum robustum
Guttiferae  VU B1+2abcde
Papua New Guinea
This uncommon tree is found in lowland rainforest in the Morobe District and near Jema in the Northern District. It is vulnerable on account of restricted distribution and possible exploitation. However, the limits of this taxon are unclear.
Assessor: Eddowes, P.J.
Refs: 19031, 19113, 19114
**Calophyllum rufinerve**  
Guttiferae  
VU D2  
Indonesia (Irian Jaya)  
A very poorly known tree known only from Geelvink Bay, where it was found in *Agathis* forest at 400m altitude.  
Assessor: Stevens, P.F.  
Refs: 19031, 19113

**Calophyllum savannarum**  
Guttiferae  
VU D2  
Indonesia (Irian Jaya)  
A tree found in secondary forest and as the main component of forest clumps in secondary savanna. So far it is only known from Japen Island and from an area near Jayapura.  
Assessor: Stevens, P.F.  
Refs: 19031

**Calophyllum streimannii**  
Guttiferae  
DD  
Papua New Guinea  
Known only from Morobe District, the species is rarely collected, occurring on ridges and hillsides between 30 and 300m, often associated with dipterocarps.  
Assessor: Stevens, P.F.  
Refs: 19031

**Calophyllum thwaitesi**  
Guttiferae  
VU A1c  
Sri Lanka  
A species occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 15431, 17195

**Calophyllum tomentosum**  
Guttiferae  
VU A1c, B1+2c  
Sri Lanka  
During the extensive National Conservation Review forest surveys, this species was recorded in seven forests.  
Assessor: World Conservation Monitoring Centre  
Refs: 15431, 17759, 19112

**Calophyllum trapezifolium**  
Guttiferae  
EN B1+2c  
Sri Lanka  
A prominent species of upper montane rainforest, endemic to Sri Lanka, occurring occasionally in lowland rainforest. The species was found in only three of the localities surveyed during the extensive National Conservation Review.  
Assessor: World Conservation Monitoring Centre  
Refs: 15431, 17195, 17759, 19106, 19112

**Calophyllum waliense**  
Guttiferae  
EN B1+2abcde  
Papua New Guinea (Bismarck Archipelago)  
A species restricted to lowland rainforest on ridges on Manus Island. The habitat has been heavily logged and degraded.  
Assessor: Eddowes, P.J.  
Refs: 19031, 19113, 19114

**Calophyllum walkeri**  
Guttiferae  
VU A1c  
Sri Lanka  
An emergent tree found in upper montane rainforests in Sri Lanka; it occasionally occurs in the lowland rainforests.  
Assessor: World Conservation Monitoring Centre  
Refs: 15431, 17195, 17759, 19106

**Calpocalyx atlanticus**  
Leguminosae  
VU A1c  
Cameroon  
A Cameroon endemic restricted to remnant forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 5595, 7550

**Calpocalyx brevifolius**  
Leguminosae  
VU D2  
Gabon  
A tree collected from the soath and known only from its type locality. The species may be more widespread given that the country's forests are relatively unexplored. Many forest areas, however, are under concession to logging companies.  
Assessor: World Conservation Monitoring Centre  
Refs: 7550, 8506

**Calpocalyx cauliflorus**  
Leguminosae  
VU A1c, B1+2c  
Cameroon, Nigeria  
A shade-bearing lowland forest species known from one outlying population west of the Niger River in Nigeria and otherwise confined to remaining forest in the east extending into Cameroon. The most significant area of forest is contained within the Oban Division of Cross River National Park in Nigeria and Korup National Park in Cameroon. The forest habitat has been extensively felled outside protected areas.  
Assessor: World Conservation Monitoring Centre  
Refs: 2773, 7550, 11504

**Calpocalyx heitzii**  
Leguminosae  
VU A1c, B1+2c  
Cameroon, Equatorial Guinea, Gabon  
Relatively restricted in range, this coastal forest species occurs in the south of Cameroon on the border with Equatorial Guinea and north of the Ogooué River in Gabon. Both populations are threatened because of the extent of felling and degradation of the habitat.  
Assessor: World Conservation Monitoring Centre  
Refs: 15790

**Calpocalyx klainei**  
Leguminosae  
VU A1c  
Cameroon, Gabon  
This species is easily confused with the more widespread *C. dinklagei*. It is confined to remaining areas of coastal forest in the south of Cameroon, extending into Gabon. There is a population in Lopé Forest Reserve, a portion of which has become Gabon’s first national park. It is also locally common in the rabino-Kounga area.  
Assessor: World Conservation Monitoring Centre  
Refs: 8506, 19043
Calopcoalyx letestui
Leguminosae
VU D2
Gabon
A small tree limited to two localities in mountainous areas in the east and central south. Although the species may be found to be more widespread, given that large areas of Gabon's forests are unexplored, these areas are also largely under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 8506, 14958

Calopcoalyx ngouiensis
Leguminosae
VU A1c
Cameroon, Gabon
In southern Cameroon this tree is known to occur in coastal forest extending inland along rivers. One population is also known in central south Gabon. Both areas of forest have been heavily degraded in places where there have been logging and agricultural activities.
Assessor: World Conservation Monitoring Centre
Refs: 8506

Caipocalyx excisus
Myrtaceae
VU D2
Cuba
A small tree known only from the deeply eroded limestone mountains of western southern part of Sierra de Nipe in eastern Cuba.
Assessor: Areces-Mallea, A.E.
Refs: 9522, 11403, 19149

Calycorectes australis
Myrtaceae
EN B1+2acde
Brazil (Rio de Janeiro, Santa Catarina)
Known from few collections, the species is confined to areas of rainforest on the Atlantic coast. The type specimen is from Santa Catarina and it has also been found at Parati in Rio de Janeiro near the border with São Paulo.
Assessor: Pires O'Brien, J.
Refs: 19097

Calycorectes duarteanus
Myrtaceae
EN B1+2acde
Brazil (Pará, Rio de Janeiro, Santa Catarina, São Paulo)
A tree or treelet, which occurs infrequently in remaining areas of Atlantic forest.
Assessor: Pires O'Brien, J.
Refs: 19097

Calycorectes schottianus
Myrtaceae
CR B1+2acd
Brazil (Rio de Janeiro)
The species is known only from the type collection.
Assessor: Pires O'Brien, J.
Refs: 19097

Calycorectes sellowianus
Myrtaceae
EN A1acd
Brazil (Rio de Janeiro)
Present information suggests the species is endemic to Rio de Janeiro. It has been found in the Poço das Antas Biological Reserve and on Mage.
Assessor: Pires O'Brien, J.
Refs: 19097

Calycorectes wurdackii
Myrtaceae
VU D2
Peru
The only record of the species is from the type collection, which was taken from lowland Amazon forest in the department of Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Calyptranthes acutissima
Myrtaceae
CR B1+2c
Jamaica
An endemic to Dolphin Head and Bubby Hill where the species is found in low numbers in wooded areas on the summit.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Calyptranthes arenicola
Myrtaceae
CR B1+2c
Cuba
A small tree, imperfectly known, described more than half a century ago from El Morrillo in Pinar del Rio Province. Fieldwork is needed to confirm whether the population still exists.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Calyptranthes brevispicata
Myrtaceae
VU D2
Peru
Currently recorded only from the type collection, the species occurs in lowland Amazon forest in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Calyptranthes capitata
Myrtaceae
VU B1+2c
Jamaica
The species is distributed between 670 and 950m in St Ann and Clarendon Parishes.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Calyptranthes crebra
Myrtaceae
VU D2
Peru
Known only from the type, this species occurs in lowland Amazon forest on white sand in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Calyptranthes densiflora
Myrtaceae
DD
Peru
This species is endemic to the lowland eastern slopes of the Andes in Peru.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Calyptranthes discolor
Myrtaceae
EN B1+2c
Jamaica
The species is rare and confined to forested slopes on Dolphin Head. The habitat has experienced selective logging and hurricane damage.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980
Calyptranthes ekmanii  
Myrtaceae  
Haiti, Jamaica  
Confined to areas of wet woodland or thicket on limestone, this shrubby species occurs in south-west Haiti and Portland in Jamaica. The habitat in both islands has suffered severe decline largely because of forestry and agricultural expansion. Threats of cutting and clearing are still strong in remaining wooded areas.  
Assessor: World Conservation Monitoring Centre  
Refs: 261, 401, 5653, 7980

Calyptranthes flavo-viridis  
Myrtaceae  
Cuba  
This small tree, along with its relative C. arenicola, was discovered many years ago at a single locality in Pinar del Rio Province. The site, near the Santa Cruz River, has suffered severe degradation from settlement and agriculture. Fieldwork is necessary to verify the existence of this species.  
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

Calyptranthes johnstonii  
Myrtaceae  
Panama  
This species is described on the basis of three collections, all from south-west of Fort Sherman in the Canal area. Other Calyptranthes in the same region are identified as other species.  
Assessor: Mitré, M.  
Refs: 3467, 16772

Calyptranthes kiaerskovi  
Myrtaceae  
Puerto Rico, Virgin Islands (British)  
A small tree of moist forest or wet areas in dry forest. In Puerto Rico three sites, each containing a single individual, were originally recorded, only one of which may still be extant. A population on the offshore island of Vieques has been destroyed in the construction of a helipad. On Virgin Gorda in the British Virgin Islands, there are several very small populations within the national park and there may be others still to discover. On Tortola, however, the population has not been seen for some time.  
Assessor: World Conservation Monitoring Centre  
Refs: 16898, 17124

Calyptranthes luquillensis  
Myrtaceae  
Puerto Rico  
An endemic to the Luquillo Mountains, occurring in wet areas at middle elevation in the El Verde region. More information may indicate a more serious threat category is appropriate.  
Assessor: World Conservation Monitoring Centre  
Refs: 5988, 7931, 7980, 12389, 17124

Calyptranthes nodosa  
Myrtaceae  
Jamaica  
A tree of moist thickets, especially along streams, found only in Trelawny and Clarendon. A doubtful record also comes from Hanover.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 7980

Calyptranthes polyneura  
Myrtaceae  
VU B1+2c  
Cuba  
An uncommon shrub or small tree confined to the serpentine plateau of Sierra de Nipe in north-eastern Cuba.  
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

Calyptranthes portoricensis  
Myrtaceae  
EN C2a  
Puerto Rico  
A poorly known species, which was recorded in 1981 from two localities in the upper regions of Monte del Estado, Maricao.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 17124

Calyptranthes pozasiana  
Myrtaceae  
CR B1+2c  
Cuba  
Many years ago this small tree was reported to occur locally in the Rio del Medio region of Pinar del Rio Province in western Cuba. The habitat in this area is very disturbed. Fieldwork is needed to check whether the original population still exists.  
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

Calyptranthes rostrata  
Myrtaceae  
EN B1+2c  
Cuba  
A shrub, sometimes a small tree, endemic to the scrub and karstic woods on limestone of Monte Verde in the Nipe-Yateras District of eastern Cuba. Few collections have been made of this species.  
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

Calyptranthes sessilis  
Myrtaceae  
DD  
Peru  
A lowland forest species known only from Loreto and San Martin.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

Calyptranthes simulata  
Myrtaceae  
LR/nt  
Peru  
Occurring in seasonally inundated areas and terra firme forest, the species is known only from the departments of Amazonas, Loreto and Madre de Dios.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

Calyptranthes thomasiana  
Myrtaceae  
EN C2a  
Puerto Rico, Virgin Islands (British), Virgin Islands (US)  
Recorded as a shrub or tree, the species is known from scattered small populations in moist forest. There are about 30–50 individuals remaining in three localities in Puerto Rico. In the US Virgin Islands the best known population consists of 15–20 plants on Bordeaux Mountain on St John. The site of the St Thomas population is now developed and no plants remain.
except in cultivation. In the British Virgin Islands there is thought to be a population of at least 100 individuals on Gorda Peak.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5988, 7980, 17124

*Calyptranthes umbelliformis*

**Myrtaceae**  
VU B1+2c

Jamaica

The distribution of the species is disjunct, with populations - possibly representing different taxa - occurring in St James in the west and Portland in the east. The species is confined to moist wooded limestone hills.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

*Calyptranthes uniflora*

**Myrtaceae**  
CR B1+2c, C2b

Jamaica

Known from only a single locality, the species occurs at the base of a wooded limestone cliff in Cooks Bottom, St Elizabeth Parish.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980

*Calyptranthes wilsonii*

**Myrtaceae**  
VU B1+2c

Jamaica

Although the species appears to be locally abundant, it is confined to mossy woodland areas between 450 and 900m in Portland and St Thomas. Almost the entire forest in the latter parish has been either severely degraded or completely lost. Areas in the former are also reduced and threatened by forestry activities.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980, 19116

*Camellia chrysanthia*

**Theaceae**  
VU A1cd

China (Guangxi), Viet Nam

A shrub or small tree restricted to wet areas of forest below 500m in south-west Guangxi extending into Viet Nam. Populations are given formal protection over much of the range in China but continue to be threatened by overcollection of seedlings and habitat disturbance. The species was included in Appendix II of *CITES* in 1985 and deleted from the Appendix in 1997.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

*Camellia crapnelliana*

**Theaceae**  
VU A1c

China (Fujian, Guangxi, Zhejiang), Hong Kong

A species of the broadleaved forest, occurring along the coast in Fujian, south-west Zhejiang, southern Guangdong and southern Guangxi. Populations are steadily diminishing with increasing habitat loss and cutting.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

*Camellia euphlebia*

**Theaceae**  
VU A1c, D2

China (Guangxi), Viet Nam

A shrub or small tree found in northern Viet Nam and one location in Fangcheng, southern Guangxi, where it grows in forested valleys between 150 and 480m. There are constant threats of cutting or habitat clearance.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

*Camellia fleuryi*

**Theaceae**  
VU D2

Viet Nam

A small tree which appears to be confined to a single locality between 800 and 1000m at Dien Khanh in Khanh Hoa Province.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 848, 11530

*Camellia gibertii*

**Theaceae**  
VU D2

Viet Nam

A small tree, apparently endemic to Viet Nam, where it occurs at about 300m in Phu Tho in Vinh Phu Province.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 848

*Camellia grisii*

**Theaceae**  
VU A1c

China (Fujian, Guangxi, Hubei, Hunan, Jiangxi)

Confined to areas of evergreen broadleaved forest between 150 and 500m, the species occurs in a few scattered locations in the east of China. The numbers of populations are steadily diminishing with increasing habitat loss and disturbance.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

*Camellia hengchunensis*

**Theaceae**  
EN C2a

Taiwan

A species restricted to dry lowland forest on windward hills and ridges in the Nanjenshan area on the Hengchun Peninsula. The entire range is contained within Kenting National Park. Little regeneration is evident.

**Assessor:** Pan, F.J.

**Refs:** 3295, 19030

*Camellia pleurocarpa*

**Theaceae**  
VU D2

Viet Nam

A small tree which has been collected only from Hoi Xuan in Thanh Hoa Province, near the Laos border.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 848

*Camellia pubipetala*

**Theaceae**  
VU B1+2c, D2

China (Guangxi)

A shrub or small tree known from two locations, Long'an and Daxin, occurring in evergreen broadleaved forest at the base of limestone mountains, between 190 and 230m. There are constant threats of cutting and habitat clearance.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

*Camellia reticulata*

**Theaceae**  
VU B1+2c

China (Yunnan)

Although the species occurs widely in cultivation, wild populations are restricted to mixed montane forest in
western and central Yunnan, where they are in decline. The demand from the horticultural industry is causing
significant depletion of plants in the wild.
Assessor: Sun, W.
Refs: 1818, 11847, 19055

Camellia tunghinensis
Theaceae
VU B1+2c, D2
China (Guangxi)
A shrub or small tree confined to Fangcheng in southern
Guangxi, where it occurs in forest between 180 and
440m. There are constant threats of cutting or habitat
clearance.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Cameraria microphylla
Apocynaceae
EN B1+2c
Cuba
A small tree, up to 5m tall, occurring in evergreen
thorny shrubwoods on serpentine-derived soils in the
lowlands of Camaguey and Ciego de Avila Provinces.
The species' habitat has been severely degraded and
transformed into savanna by burning and grazing.
Assessor: Arecos-Mallea, A.E.
Refs: 11403, 18485, 19149

Campnosperma seychellarum
Anacardiaceae
Seychelles
EN B1+2c
A tree scattered as isolated individuals or small groups
in moist forest on Mahé. A single individual is also
known near Valleé de Mai on Praslin. Historical records
indicate populations were once large but have declined
through heavy exploitation for fuelwood and timber
used in boat and house building. Natural regeneration is
now rare and seriously hampered by the invasion of
Cinnamomum verum. The entire species range lies
largely within Morne Seychellois National Park.
Propagation from seeds is now being attempted.
Assessor: Nature Protection Trust of Seychelles
Refs: 9859, 17229, 19023, 19025

Campnosperma zeylanicum
Anacardiaceae
Sri Lanka
VU A1c
A tree restricted to the lowland evergreen rainforests
of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Campomanesia aromatica
Myrtaceae
VU B1+2c
Brazil
Restricted to Atlantic coastal forest in the south-east, the
species has suffered from extensive reductions in
habitat.
Assessor: Pires O'Brien, J.
Refs: 19097

Campomanesia hirsuta
Myrtaceae
EN B1+2c
Brazil (Rio de Janeiro)
Restricted to the mountains of Rio de Janeiro near
Petrópolis and Terezópolis, this tree was last collected in
1968. It is not known whether the species is still extant.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia laurifolia
Myrtaceae
EN B1+2c
Brazil (Rio de Janeiro)
A forest tree apparently restricted to the mountains
around Rio de Janeiro. The most recent collection is
dated 1961.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia lundiana
Myrtaceae
EX
Brazil (Rio de Janeiro)
This species is known only from the type collection,
which supposedly came from Rio de Janeiro in 1825.
Although this area has since been well studied, the
species has not been found again.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia neriiflora
Myrtaceae
VU B1+2c
Brazil (Paraná, São Paulo)
A tree confined to the remaining patches of coastal
forest in São Paulo and Paraná. Large-scale destruction
of these forests has taken place over several centuries.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia phaea
Myrtaceae
VU B1+2c
Brazil (Rio de Janeiro, São Paulo)
A small tree known only from sites near São Paulo city
and Serra dos Orgãos National Park near Teresópolis in
Rio de Janeiro. It is also cultivated on a small scale for
its much appreciated edible fruits which are shaped like
Indian clay pots, or cambuci, from which it derives its
vernacular name.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia prosthecarpus
Myrtaceae
DD
Brazil (Minas Gerais)
The species is known only from a collection made in the
last century at a location called Rio Manso in Minas
Gerais. There is more than one Rio Manso in the state
and the species has not been found again.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia reiziana
Myrtaceae
LR/nt
Brazil (Santa Catarina)
Although common where it occurs, this small tree is
confined to a small area of coastal forest in Santa
Catarina. The declines in this habitat over centuries have
been dramatic.
Assessor: Barroso, G.M.
Refs: 5435, 7906, 7980, 19097
Campomanesia rufa
Myrtaceae DD
Brazil (Minas Gerais)
This species is poorly known. It is apparently restricted to Minas Gerais, where it probably occurs in *cerrado* vegetation.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia schlechtendaliana var. schlechtendaliana
Myrtaceae VU B1+2c
Brazil (Paraná, Rio de Janeiro)
An Atlantic coastal forest tree from locations in Paraná and Rio de Janeiro. The decline in its habitat has been dramatic.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia sessiliflora var. sessiliflora
Myrtaceae EN B1+2c
Brazil (São Paulo)
According to current knowledge, two collections from the last century and one more recent collection, this variety is confined to coastal forests in São Paulo and Rio de Janeiro. The other varieties appear to be more commonly collected and located in the interior.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campomanesia speciosa
Myrtaceae LR/nt
Peru
A small tree which has a relatively wide range on the eastern slopes of the Peruvian Andes. Recent collections have been few.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Campomanesia viatoris
Myrtaceae EN B1+2c
Brazil (Alagoas)
Appropriately collected only twice, this rare species is poorly known but believed to be distributed in forest on the banks of Rio São Francisco in coastal Alagoas.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Campoplexis ramiflora
Sapindaceae VU B1+2c
Kenya, Madagascar?, Somalia, Tanzania
An evergreen tree of riverine forest. It occurs from southern Somalia along the lower Jubba River into eastern Kenya and Tanzania. Although the range appears extensive, populations are localised and confined to disappearing habitat. Information on the possible occurrence in Madagascar may alter the current status of the species.
Assessor: Thulin, M.
Refs: 1308, 2361, 6396, 6897, 18665

Campylospermum vogelii var. molleri
Ochnaceae VU D2
São Tomé & Príncipe (Príncipe, São Tomé)
A small tree which is found in three sites above 1300m, where it occurs commonly in secondary forest. Regeneration is good in at least one of the sites.
Assessor: World Conservation Monitoring Centre
Refs: 19111

Canarium fusco-calyceinum
Burseraceae VU A1cd+2cd
Malaysia (Sarawak)
An uncommon tree endemic to Sarawak, where it occurs in lowland mixed dipterocarp forest.
Assessor: World Conservation Monitoring Centre
Refs: 18327

Canarium kipella
Burseraceae EN B1+2c
Indonesia (Java)
This species is apparently sparsely distributed in hill forest on Mount Salak and near Pelabuhan Ratu. Both areas, close to Bogor city, appear to be without official protection and are susceptible to encroachment and cutting.
Assessor: World Conservation Monitoring Centre
Refs: 9078

Canarium liguliferum
Burseraceae DD
Solomon Islands (South Solomon)
A lowland rainforest species known only from the Solomon Islands.
Assessor: World Conservation Monitoring Centre
Refs: 16292, 16612

Canarium luzonicum
Burseraceae VU A1cd
Philippines
Endemic to the Philippines, this tree occurs in primary forest at low to medium altitudes. The *kedondong* timber is used for light construction, a valuable oil is tapped from the tree and the seeds are edible.
Assessor: World Conservation Monitoring Centre
Refs: 2072, 11145

Canarium ovatum
Burseraceae VU A1cd
Philippines
A lowland primary forest tree, endemic to the Philippines, valued for its *kedondong* timber and the commercially traded seeds called pilinuts. It is commonly planted.
Assessor: World Conservation Monitoring Centre
Refs: 4919, 7673, 11145

Canarium paniculatum
Burseraceae EN A1cde+2ce
Mauritius
Assessor: Strahm, W.
Refs: 9120, 16426, 19208

Canarium perlisanum
Burseraceae VU D2
Malaysia (Peninsular Malaysia)
A small tree known from a single collection in moist scrub on a limestone hill, Perlis (Kaki Bukit).
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073
Species Summaries

Canarium pseudodecumanum
Burseraceae
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah), Thailand
An uncommon large tree found scattered in primary forest on undulating swamp land up to 280 m. The timber is traded as kedongdong. There is concern over its status in Sabah.
Assessor: World Conservation Monitoring Centre
Refs: 7673, 11145, 17140, 19017, 19026

Canarium pseudopatentinervium
Burseraceae
Indonesia (Kalimantan, Sumatra), Malaysia (Sarawak)
An uncommon tree restricted to lowland primary forest. In Sarawak, the species is only known from a single collection from Belaga.
Assessor: World Conservation Monitoring Centre
Refs: 11145, 19017

Canarium pseudopinella
Burseraceae
Malaysia (Sarawak)
A small tree known only from two collections, taken from lowland rainforest in Gunung Lambir and Gunung Raya.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Canarium pseudosumatranum
Burseraceae
Malaysia (Peninsular Malaysia)
This imperfectly known species is scattered in lowland and hill forest of Perlis, Kedah, Perak, Selangor, Negeri Sembilan and Pahang. The wood is traded as kedongdong timber.
Assessor: Chua, L.S.L.
Refs: 11145, 19073

Canarium reniforme
Burseraceae
Malaysia (Peninsular Malaysia)
A species of moist coastal hill forest, found in Perak and Selangor.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Canarium sarawakanum
Burseraceae
Malaysia (Sarawak)
Endemic to Sarawak, this small uncommon tree occurs in lowland to low submontane forest. So far collections are known from Kapit, Lubok Antu, Gunung Peniriss and Simanggang.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Canarium whitei
Burseraceae
New Caledonia
A rainforest tree recorded from Rivière des Pirogues.
Assessor: Jaffré, T. et al.
Refs: 10351

Canarium zeylanicum
Burseraceae
Sri Lanka
A scattered tree confined to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

Canthium dicoccum
Rubiaceae
Sri Lanka
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

Canthium ficiforme
Rubiaceae
India (Kerala, Tamil Nadu)
This species is known from a collection taken from a confined area of submontane forest in the Elamalai Hills and from an imprecisely recorded locality further south.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Canthium glaucum ssp. frangula
Rubiaceae
Kenya
A shrub or small tree, known from Meru National Park, where it occurs in Combretum woodland at 790m. More detailed information on population numbers may indicate a more serious threat category is appropriate. The type subspecies is more widespread.
Assessor: World Conservation Monitoring Centre
Refs: 6396

Canthium impressinervium
Rubiaceae
Tanzania
A coastal forest species known from three sites in south-east Tanzania. It has been collected from an unprotected tract of forest on the Noto Plateau and from the nearby Rondo Plateau. Forest covering 140km² is protected in the latter site as a forest reserve. Much of it is heavily disturbed because of previous logging, planting of commercial timbers, shifting agriculture and local exploitation. The presence of an active forest management programme is discouraging further exploitative activities.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Canthium keniense
Rubiaceae
Kenya
A Kenyan endemic of dry upland forest, occurring in localised populations in the Nairobi-Machakos region. The surrounding area is densely populated and agricultural activities, firewood collection and recent droughts are causing habitat degradation.
Assessor: World Conservation Monitoring Centre
Refs: 6396
**Canthium kilifiensis**  
**Rubiaceae**  
VU B1+2c  
Kenya  
Confined to areas of *Brachystegia* woodland, this shrub or small tree is known only from populations in Arabuko-Sokoke and Mangea.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6396

**Canthium montanum**  
**Rubiaceae**  
VU B1+2c  
Sri Lanka  
This species was found in 10 forest localities, mainly in Nuwara Eliya District, during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19112

**Canthium neilgherrense var. neilgherrense**  
**Rubiaceae**  
VU B1+2c  
India (Tamil Nadu)  
A small tree of montane forest, occurring in the Nilgiris and in the Agastymalai Hills further south.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Canthium oligocarpum**  
**Rubiaceae**  
VU B1+2b  
Kenya, Tanzania  
A subspecies of dry montane forest. A single collection is known from south-west Mau in Kenya. In Tanzania occurrences are known from Mount Kilimanjaro, Kilomeni and the Nguru Mountains.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 1308, 3356, 8814

**Canthium pergranulis**  
**Rubiaceae**  
EN B1+2c  
India (Kerala)  
A relatively large tree, which has only been recorded from a small locality of lowland rainforest in south Kerala.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Canthium racemulosum var. nanguanum**  
**Rubiaceae**  
VU B1+2b  
Mozambique, Tanzania  
A variety from dry forest patches scattered in a relatively unexplored region extending from Kilwa in southern Tanzania to northern Mozambique.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 1308, 3356, 8814

**Canthium robinianum**  
**Rubiaceae**  
VU B1+2c  
Kenya, Tanzania  
Occurrences are recorded in the Usambara Mountains and Uluguru Mountains in Tanzania and in Arabuko-Sokoke and Witu in Kenya, in *Brachystegia* woodland.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6396, 12067

**Canthium rondoense**  
**Rubiaceae**  
EN B1+2bc  
Tanzania  
A coastal forest species which appears to be confined to the remaining areas of undisturbed forest within Rondo Forest Reserve. Logging activities, shifting cultivation, pole and fuelwood collection and the establishment of commercial plantations have disturbed the forest extensively in the past. The presence of an active forestry programme is discouraging local exploitation at the present time.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 16796

**Canthium shabanii**  
**Rubiaceae**  
VU B1+2b  
Tanzania  
The range of the species appears to be confined to the Usambara Mountains, where it occurs in moist montane forest.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814

**Canthium siebenlistii**  
**Rubiaceae**  
VU B1+2c  
Tanzania  
Confined to the Usambara and Udzungwa Mountains, the species is known from four moist forest localities at altitudes above 1000m: Shume-Magamba, Mwanihara, Myumbenito and Monga.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 10961

**Canthium suborbiculare**  
**Rubiaceae**  
VU D2  
Papua New Guinea  
This shrub or small tree is restricted to the Port Moresby region and Morupore Island, where it is found in savanna or scrub. It is known only from five or six collections.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19140

**Canthium vollenensis**  
**Rubiaceae**  
VU B1+2b  
Tanzania  
The species ranges in south-east Tanzania, where it occurs in moist semi-deciduous forest remnants.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 10961

**Cantleya corniculata**  
**Icacinaceae**  
VU A1cd  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)  
Scattered below 300m in primary freshwater swamp forests and hill forests in drier areas, this tree is exploited for its highly valued timber. The heavy, hard wood has a similar fragrance to sandalwood and is often used as a substitute.  
**Assessor:** Asian Regional Workshop  
**Refs:** 5550, 6426, 12937

**Capparis crotonantha**  
**Capparaceae**  
DD  
Panama  
The species is known only from the type collection in San Blas. The specimen is not complete and was probably described erroneously as a separate species from *C. filipes*, which occurs widely in the same area.  
**Assessor:** Mitré, M.  
**Refs:** 7272, 7980, 16772
**Species Summaries**

**Capparis discolor**
Capparaceae
Colombia, Costa Rica, Mexico, Nicaragua, Panama
Ranging from the Gulf Region of Mexico to Colombia in areas of lowland rainforest, the species is reported to be most common in Costa Rica and Nicaragua. In Panama small populations have been recorded from the provinces of Panamá and Darién, including an occurrence in Darién National Park. The Colombian population appears to be confined to Antioquia. Throughout the species range the habitat has been extensively cleared for agriculture, settlement and its timber resources.
Assessor: Mitré, M.
Refs: 16772

**Capparis mirifica**
Capparaceae
CR C2a
Panama
A small tree, known from very few collections taken from a small area of lowland semi-deciduous rainforest to the north-east of the Panama Canal. The area has suffered much deforestation, although forest is protected within the national parks of Chagres and Portobelo. Occurrences are evidently rare, but it is possible further exploration will uncover additional localities.
Assessor: Mitré, M.
Refs: 1972, 1980, 16772

**Capparis mollicella**
Capparaceae
VA A1c
Mexico
A relatively widespread Mexican endemic, occurring in rainforest and also drier forest types in the Gulf region and the Pacific slopes.
Assessor: World Conservation Monitoring Centre
Refs: 5993, 19124

**Capparis pachypylla**
Capparaceae
EN B1+2c
India (Assam)
Once reported to be common along windswept steep cliffs and slopes, the species has not been recollected since 1935 from the known localities in the Aka Hills and Tuzu River Gorge. The area is remote and the species is likely to be found again.
Assessor: World Conservation Monitoring Centre
Refs: 4799

**Capparis panamensis**
Capparaceae
CR C2a
Panama
All collections of this species come from a small area of lowland evergreen rainforest to the north-east of Panamá City. The populations are small and strongly affected by logging and other activities. There is a possibility that there are further populations occur in Chagres National Park in south-east Colón and around the Canal.
Assessor: Mitré, M.
Refs: 1370, 19780, 16772, 18416

**Capparis sprucei**
Capparaceae
VU D2
Peru
A species known only from the type collection from San Martin.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Capparis uniflora**
Capparaceae
DD
Panama
Originally collected from Coclé in 1941 and identified as *C. baducco*, the specimen was redescribed as a new species, *C. uniflora*. No recent collections have been made and there is insufficient evidence to confirm the taxonomy.
Assessor: Mitré, M.
Refs: 7272, 16772

**Captaincookia margaretiae**
Rubiaceae
CR B1+2c
New Caledonia
A species from a genus endemic to New Caledonia. It is confined to a small area of threatened sclerophyllous forest. Fires, grazing and encroaching agriculture are continuous problems.
Assessor: Jaffré, T. et al.
Refs: 1833, 4492, 10351

**Caraipa jaramilloi**
Guttiferae
LR/nt
Peru
A species of *terra firme* forest occurring in the departments of Loreto, Madre de Dios and Pasco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Caraipa utilis**
Guttiferae
VU D2
Peru
Occurring in *terra firme* forest on white sand, the species is known only from the type collection.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Carallia calycina**
Rhizophoraceae
VU A1c
Sri Lanka
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 17739

**Carallia diplopetala**
Rhizophoraceae
LR/nt
China (Guangxi), Viet Nam
Confined to the Shiwan Mountains in southern Guangxi, the species appears to occur in such low numbers that repeated recent searches for it have failed. In Viet Nam it appears to be more widespread in secondary forest and forest margins in central provinces and mountain areas. Natural regeneration is reported to be good here.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 15357, 19060

**Carallia euryoides**
Rhizophoraceae
LR/nt
Malaysia (Peninsular Malaysia)
A species of lowland and hill forest, rarely reaching an altitude of 900m, occasionally found on quartz ridges. Populations are recorded in Selangor, Pahang and Johore, where it is protected in Taman Negara National Park.
Assessor: Chua, L.S.L.
Refs: 8464, 19073
Carica jamaicensis
Caricaeae
VU B1+2c
Jamaica
The species has a local distribution on rocky banks or in thickets and pastures on coral limestone or sandy soils near the sea.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Cariniana ianeirensis
Lecythidaceae
EN B1+2c
Brazil (Rio de Janeiro)
A species known only from four collections in the Atlantic forests of Tijuca and Itaocara. Its proximity to Rio de Janeiro places it under serious pressure from urban encroachment and recent intensive fieldwork in the area has failed to find living specimens. Much of Tijuca forest is protected. The species is included in the official list of threatened Brazilian plants compiled by IBAMA.
Assessor: Varty, N.
Refs: 7980, 8815, 16123

Cariniana integrifolia
Lecythidaceae
VU B1+2c
Brazil (Amazonas)
Confined to non-flooded forest of central Amazonia, near Manaus, the species is under threat from increasing land settlement and fires. It occurs in the Ducke Forest Reserve.
Assessor: Pires O’Brien, J.
Refs: 1503, 5942, 7980, 9632

Cariniana kuhlmannii
Lecythidaceae
CR B1+2c
Brazil (Rondonia)
A savanna tree, known only from the type collection from Campos dos Urupas. There is a serious threat of habitat loss through increasing land settlement.
Assessor: Pires O’Brien, J.
Refs: 1503, 3791, 7980, 9632

Cariniana legalis
Lecythidaceae
VU A1ac
Brazil (Alagoas, Bahia, Espirito Santo, Minas Gerais, Paraiba, Pernambuco, Rio de Janeiro, Sao Paulo), Colombia, Venezuela?
A large emergent tree, sparsely scattered in areas of lowland non-flooded rainforest, such as Atlantic forest, mesophyllous, riverine or hygrophyllous forest and semi-deciduous woodland. Large trees are also left standing in agricultural areas and coffee plantations. Populations frequently occur on fertile land and considerable habitat loss has caused declines in the species.
Assessor: Americas Regional Workshop
Refs: 1503, 7980, 9632, 11449, 19179, 19184

Cariniana pachyantha
Lecythidaceae
VU B1+2c, D2
Brazil (Amazonas)
A large tree, endemic to lowland rainforest in Sao Paulo de Olivenga. It is known only from the type collection.
Assessor: Pires O’Brien, J.
Refs: 1503, 3791, 7980, 9632

Caricase edulis var. sechellensis
Apocynaceae
EN D1
Seychelles
The main population is confined to Silhouette. On Aldabra there are two trees and the population on Mahé became extinct by 1874, probably because of habitat clearance. About 150 mature trees exist in total, a large population occurring at Mont Cocos Marrons. The trees were also felled in the past for the production of aromatic oils and fuelwood for copra dryers. All populations are within areas which are given protection.
Assessor: Nature Protection Trust of Seychelles
Refs: 10610

Carpinus putensis
Corylaceae
CR D1
China (Zhejiang)
A single fenced tree is left in the wild on Mount Foding on Putuo Island in the Zhoushan Archipelago. Originally occurring in evergreen broadleaved forest, the remaining tree now exists at the edge of a sparse mixed forest. The species is monoeocious.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11725, 11847


Carpodiptera mirabilis
Tiliaceae  CR B1+2c  Cuba
This beautiful tree is localised in montane rainforest on limestone-derived soils within Guantanamo Province. No flowering specimens have ever been collected.
Assessor: Areces-Mallea, A.E.
Refs: 16327, 18485, 19149

Carpodiptera ophitica
Tiliaceae  EN B1+2c  Cuba
An uncommon shrub or small tree occurring locally near ravines and washes in the serpentine outcrop of Canasí, Matanzas Province. The habitat is under constant threat of being completely cut and cleared.
Assessor: Areces-Mallea, A.E.
Refs: 16327, 18485, 19149

Carposylon macrospernum
Palmae  CR D1  Vanuatu
A palm tree of ornamental interest, confined to areas of lowland rainforest in Aneltyum, Tanna and Futuna. Approximately 40 individuals exist in the wild and another 120 mature trees are cultivated around villages. Regeneration is moderate. The species is protected and the subject of a conservation plan managed by the Vanuatu Forestry Department.
Assessor: Dowl, I.L.
Refs: 19118

Caryocar amygdaliforme
Caryocaraceae  EN B1+2c  Colombia, Panama, Peru
Apparently endemic to Colombia, the species is known to occur in Antioquia, Bolívar, Caldas, Santander, Tolima and possibly Caquetá. The Peruvian distribution requires confirmation. There may also be a collection from Darién in Panama. The species is closely related to *C. costaricense* to such a degree that they may be forms of the same taxon.
Assessor: Calderon, E.
Refs: 7980, 19069, 19216

Caryocar coriaceum
Caryocaraceae  EN A1a+2c  Brazil
A species of *cerrado*, restricted to the Chapado do Araripe in Brazil.
Assessor: Prado, D.
Refs: 1262, 7980

Caryocar costaricense
Caryocaraceae  VU A1acd  Colombia, Costa Rica, Panama, Venezuela
The species is known from scattered populations in lowland evergreen rainforest. In Costa Rica occurrences are very scarce and confined to protected areas. Similarly in Panama, the species is restricted to Darién and San Blas, where populations appear to be in a poor state with little evidence of regeneration. Levels of exploitation of the timber are reported to be high but there are differences in opinion as to whether timber trade is a serious threat to the species. Habitat loss has, however, been severe. Populations extend into the Chocó in Colombia. There may some confusion with populations of the closely related species, *C. amygdaliforme*. The species is listed on Appendix II of CITES.
Assessor: Americas Regional Workshop
Refs: 7980, 14487, 16772, 19179, 19185

Caryodaphnopsis cogolloi
Lauraceae  EN B1+2c  Colombia
An endemic to Antioquia.
Assessor: Calderon, E.
Refs: 19069

Caryodendron angustifolium
Euphorbiaceae  DD  Panama
The species appears to be known only from the type specimen, collected in Progresso in Chiriquí in the first half of the century, although it possibly occurs in the Golfo Dulce area in Costa Rica. Additional specimens originally recorded as this species from other parts of Panama have since been identified as *Senefelderia testiculata*. It is not known whether the species is now extinct.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772, 19177

Casasia longipes
Rubiaceae  LR/nt  Jamaica
An uncommon tree found in remaining areas of woodland on limestone in central parishes.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Casearia albicans
Flacourtiaceae  DD  Malaysia (Peninsular Malaysia)
A small tree confined to the moist forest of Penang and Perak.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Casearia atlantica
Flacourtiaceae  EN C2a  Panama
Occurring chiefly along forested riversides, the species appears to be confined to the Atlantic side of three provinces. The few living specimens known are sparsely scattered in forest that is not well studied and, in parts, disappearing through encroaching agriculture and settlements.
Assessor: Mitré, M.
Refs: 7980, 12756, 16772

Casearia corifolia
Flacourtiaceae  LR/nd  New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Casearia crassinervis
Flacourtiaceae  VU D2  Cuba
A shrub which sometimes reaches the size of a small tree. It occurs in pine woodland and forest and is

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Species Summaries

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confined to the mountains of the Nipe-Baracoa Massif in eastern Cuba.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 19149

Casearia engleri
Flacourtiaceae VU B1+2b
Tanzania
A montane forest tree restricted in range to the West Usambara Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5020, 5204

Casearia flavivirens
Flacourtiaceae VU B1+2c
Indonesia (Bali, Java)
A species of various forest types occurring up to an altitude of 800m in eastern Java and Bali. All forested areas at these elevations have experienced heavy clearing and are under intense pressure from the activities of local populations.
Assessor: World Conservation Monitoring Centre
Refs: 7673, 9078

Casearia flexula
Flacourtiaceae DD
Malaysia (Peninsular Malaysia)
An uncommon shrub or small tree of submontane and hill forest confined to Kedah Peak. Similar specimens, which could be this species, have been collected elsewhere in Peninsular Malaysia and in Sumatra and Borneo.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Casearia kaalaensis
Flacourtiaceae EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Casearia lasiophylla
Flacourtiaceae DD
Brazil (Alagoas, Minas Gerais, Paraná, Piauí, Rio de Janeiro, Santa Catarina, São Paulo)
Although the species is geographically widespread, its distribution is discontinuous. It is found principally in areas of Araucaria forest, but also in more open areas and pastureland. Occurrences are rare in São Paulo and questionable in Rio de Janeiro. It has, however, been recently collected from Paraná.
Assessor: Torres, R.B.
Refs: 19098, 19099

Casearia macrocarpa
Flacourtiaceae VU B1+2c
Malaysia (Peninsular Malaysia)
This small tree species is found only in areas of rainforest in Penang.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Casearia manni
Flacourtiaceae VU D2
São Tomé & Príncipe (Príncipe)
The species has been collected only twice and no information on its exact locality has been recorded.
There have been no recent botanical surveys of the island.
Assessor: World Conservation Monitoring Centre
Refs: 2724

Casearia mauritiana
Flacourtiaceae CR A1ce, B1+2ce
Mauritius
Assessor: Strahm, W.
Refs: 9120, 16426, 19208

Casearia megacarpa
Flacourtiaceae VU B1+2c
Colombia
This endemic Colombian species occurs in Valle and Vaupes.
Assessor: Calderon, E.
Refs: 7980, 19069

Casearia mexiae
Flacourtiaceae VU B1+2c
Ecuador
An endemic of Ecuador, inhabiting montane and upper montane cloud forest. Currently this species is only known from the High Andean areas of Imbabura and Pichincha.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 19119, 19120

Casearia quinduensis
Flacourtiaceae EX
Colombia
An extinct species, previously recorded in Tolima and possibly Quindío.
Assessor: Calderon, E.
Refs: 7980, 19063, 19069

Casearia tinifolia
Flacourtiaceae EX
Mauritius
No specimens have been found since 1976.
Assessor: Strahm, W.
Refs: 9120, 16426, 19208

Casearia williamsiana
Flacourtiaceae CR C2a
Honduras
A species of *matorral, thickets and dry forest along rivers, at low to middle elevations.
Assessor: Nelson, C.
Refs: 7980, 12756, 13995

Casearia wynadensis
Flacourtiaceae VU B1+2c
India (Kerala, Tamil Nadu)
A small tree of low to medium elevation evergreen forest, occurring in scattered localities in Wayanad and the Nilgiris with some outlying populations further south.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Cassia aldabrensis
Leguminosae VU D2
Seychelles (Albdra)
This species appears on Assumption and all the main islands of Aldabra, except the western portion of Grand Terre. It occupies crevices on limestone pavement (*plain*) and on pinnacled micro-karst limestone.
(champignon). Aldabra is protected as a Strict Nature Reserve. Assumption has experienced some habitat clearance for strip-mining for phosphate or guano. 

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19027  

**Cassia artemisia**  
Leguminosae EN B1+2c  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351  

**Cassia aubrevillei**  
Leguminosae VU A1c, B1+2c  
Côte d’Ivoire, Gabon  
The distribution of this rare species is disjunct. It is known only from lowland moist semi-deciduous forest in Gabon and further west in Côte d’Ivoire. This type of forest in the latter country has disappeared outside protected areas. In the former country forest areas are unprotected, with the exception of the newly established national park at Lopé, and largely under concession to logging companies.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2773, 12822  

**Cassia fikifiki**  
Leguminosae EN B1+2c  
Côte d’Ivoire  
A species endemic to lowland forest in south-west Côte d’Ivoire, between the rivers Sassandra and Cavally. Severe deforestation in the area has resulted in there being little forest outside Tai National Park.  
**Assessor:** Assi, A.  
**Refs:** 12822  

**Cassine koordersii**  
Celastraceae CR B1+2c  
Indonesia (Java)  
It is not known whether the species is still extant in the wild. The only known location, which was situated in a seasonally dry area in Puger in the Lampesan Valley and Watangan Hills, is now deforested. Intense population pressure has been the main cause of habitat loss.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9078  

**Cassipourea brittoniana**  
Rhizophoraceae EN B1+2c  
Jamaica  
An uncommon tree confined to areas of woodland on limestone hills in Trelawny.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980  

**Cassipourea eketensis**  
Rhizophoraceae CR A1c  
Nigeria  
Recorded only from Eket in south-eastern Nigeria, the habitat of this species is likely to have been destroyed by operations for oil exploration. A botanical survey of the area is required to ascertain whether the species is now extinct.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 450, 2773, 11504  

**Cassipourea fanshawei**  
Rhizophoraceae VU D2  
Zambia  
The type collection, made in Musondwa in 1958, is the only known record of this species.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18965  

**Cassipourea flanaganii**  
Rhizophoraceae VU A2c  
South Africa (Eastern Cape)  
Found in evergreen forest along the Eastern Cape coast and further inland, mainly in Transkei, the species occurs in many localities which are supposedly protected as demarcated forest. However, the system of protection has not been successfully upheld since 1994. Much of the forest, including that which is not demarcated, is threatened by increasing settlement and cutting for firewood and timber.  
**Assessor:** Hilton-Taylor, C. et al.  
**Refs:** 689, 19218  

**Cassipourea hioutou**  
Rhizophoraceae VU A1c, B1+2c  
Côte d’Ivoire, Ghana  
A tree which can be common where it occurs but is strictly confined to wet evergreen forests. In Côte d’Ivoire it is restricted to the south-west, mainly in Tai National Park. This type of forest has reduced in extent significantly because of logging and mining and also the establishment of industrial plantations.  
**Assessor:** Assi, A.  
**Refs:** 8369, 12061, 12822  

**Cassipourea obovata**  
Rhizophoraceae DD  
Mozambique  
**Assessor:** Bandeira, S.  
**Refs:** 5117, 18965  

**Cassipourea subcordata**  
Rhizophoraceae CR B1+2c  
Jamaica  
A small tree known only from an area of marsh and one other site along a brook in limestone hills in Trelawny.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980  

**Cassipourea subessilis**  
Rhizophoraceae CR B1+2c  
Jamaica  
A very uncommon tree endemic to Dolphin Head, where it is confined to areas of woodland on limestone in the north-east.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980  

**Cassipourea swaziensis**  
Rhizophoraceae DD  
South Africa (KwaZulu-Natal), Swaziland  
There is taxonomic confusion over this species. Little is known about its abundance and precise distribution. It has been found on exposed quartzite rock ridges in only three definite localities, where the habitat is under threat from cutting as a source of firewood and timber.  
**Assessor:** Hilton-Taylor, C. et al.  
**Refs:** 689, 11785, 19218
**Cassipourea thomassetii**

Rhizophoraceae  
VU D2  
Seychelles (Alibaba)

A shrub or small tree which appears to be very sparsely distributed in inland mixed scrub on Malabar, Polynyme and the west of Picard. The islands are under protection in a Strict Nature Reserve and only Picard is inhabited by staff of a research station.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 11577; 19027; 19062

**Castanopsis catappaefolia**

Fagaceae  
CR B1+2c  
Malaysia (Peninsular Malaysia)

This lowland tree of open rainforest is known only from the type collection, gathered in 1886 from the district of Gopeng, Perak.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19073

**Castanopsis concinna**

Fagaceae  
VU B1+2ce  
China (Guangdong, Guangxi), Hong Kong

A tree known only from scattered small populations on low-lying islands on the coast from the mouth of Zhujiang River to Shiwan Mountain. Numbers are believed to be very small and declining because of cutting for the timber. Some populations, e.g. at Datan in Hong Kong and Chengman in Jiulong, are protected.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818; 11847

**Castanopsis curtisii**

Fagaceae  
LR/nt  
Malaysia (Peninsular Malaysia)

A medium-sized tree, distributed in lowland rainforest areas in Perlis, Kedah, Kelantan, Penang, Pahang and Selangor. Protected populations are found within Taman Negara National Park.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464; 19073

**Castanopsis kawakamii**

Fagaceae  
LR/nt  
China (Fujian, Guangdong, Jiangxi), Taiwan, Viet Nam

A massive tree scattered in subtropical evergreen broadleaved forest along the south-east coast of China and in Taiwan, and widespread in northern and central Viet Nam. Trees are heavily cut in many areas for the timber, which is used in construction work. Regeneration, at least in Viet Nam, is reported to be poor and limited to forest edges.  
**Assessor:** SSC Temperate Broadleaved Trees Specialist Group  
**Refs:** 1818; 6469; 11847; 15357

**Castanopsis nephelioiides**

Fagaceae  
VU A1c  
Malaysia (Peninsular Malaysia), Singapore

Occurring up to 1600m, the species is found in both open and closed rainforest in Kedah, Kelantan, Penang, Pahang and Selangor.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464; 9199; 11647; 19073

**Castanopsis scortechinii**

Fagaceae  
VU B1+2c  
Malaysia (Peninsular Malaysia)

A rare tree occurring in the hill forests of Perak and Pahang. The localities are given a degree of protection within the permanent forest estate. However, large areas remain threatened by encroaching agriculture.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464; 19073

**Castanopsis wallichii**

Fagaceae  
VU B1+2c  
Malaysia (Peninsular Malaysia), Singapore

This tree is found in the lowland rainforests of Kedah, Penang, Perak, Selangor, Malacca and Singapore. Much of the remaining habitat is under threat from development, although four small localities are contained within forest reserves.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464; 9199; 19073

**Catalpa brevipes**

Bignoniaceae  
VU B1+2c  
Cuba, Dominican Republic, Haiti

In Cuba, this small tree is known from the limestone hills of Baire on the northern side of the Sierra Maestra mountain range and from the dry forests on coastal limestone in Cabo Cruz. It has also been collected from Azua in the Dominican Republic and the Massif de la Hotte in Haiti.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980; 8451; 11403; 18485; 19149

**Cathaya argyrophylla**

Pinaceae  
LR/cd  
China (Guangxi, Guizhou, Hunan, Sichuan)

A monospecific genus occurring in a few disjunct localities in the eastern Dalou Mountains and in the Yuecheng range. Around 30 small to medium-sized stands occur in areas which are fairly inaccessible. The populations are well protected but there is concern that they will be replaced by faster growing broadleaved species if regeneration continues to be poor.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 1818; 5624; 11847; 13041

**Cavanillesia planifolia**

Bombacaceae  
LR/nt  
Colombia, Costa Rica, Nicaragua, Panama, Peru

A widely distributed species, occurring in lowland rainforest and in areas which have been disturbed or cleared of forest. The Colombian population is considered to be endangered. In Panama, the largest populations are found in the Canal area and in Darén. It is one of the few trees often left uncut after forest clearance because its large size makes handling difficult. Solitary individuals and scattered populations are distributed throughout the rest of Panama, and in neighbouring Central American countries it is relatively common.  
**Assessor:** Mitre, M.  
**Refs:** 11449; 16772; 19069

**Cecropia longipes**

Cecropiaceae  
EN C2a  
Colombia, Panama

In Panama the species occurs in moist forest, woodland and scrub habitats from the Canal area to Darén. Populations are small and dispersed and there are few young individuals. A small part of the species range is
Species Summaries

Cecropia mazonii
Cecropiaceae  DD
Panama
Occurring in Boquete in the province of Chiriquí, the species has been collected only twice, although the area has been relatively well studied. There is not enough information to categorize the species as extinct and it is possible that more recent collections have been identified under a different species name.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Cecropia multiflora
Cecropiaceae  LR/nt
Peru
A lowland forest species restricted to the departments of Amazonas, Cuzco and Junín.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Cecropia tubulosa
Cecropiaceae  VU D2
Peru
Known only from the type collected in Huánuco, this species occurs in lowland rainforest.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Cecropia uctubambana
Cecropiaceae  VU D2
Peru
Recorded from the type only, this species occurs in lowland rainforest in Amazonas Department.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Cedrela fissilis
Meliaceae  EN A1cd+2cd
Argentina (Jujuy, Misiones, Salta, Tucumán), Bolivia, Brazil (Rio Grande do Sul, Santa Catarina), Colombia, Costa Rica, Ecuador, Panama, Paraguay, Peru, Venezuela
At one time an abundant and wide-ranging species in lowland forest types. Populations throughout its range have been decimated by overexploitation and habitat loss. Overexploitation has resulted in the species becoming threatened in Colombia and Amazonian Peru. Most natural populations in Ecuador have been destroyed. Some large trees remain in Cuyabeno but they are being felled for export to Colombia. The species has become rare in Bolivia and is now only harvested opportunistically whilst mahogany, Amburana and Machaerium are being sought-after. It is apparently still abundant in the Región Oriental in Paraguay, especially along the Paraná valley. Populations in Argentina are restricted to the north, where they are partly contained within subandean piedmont forest, a habitat which is under severe threat. In Central America there are very few individuals in Costa Rica, if any at all, and few in Panama. The timber is considered inferior to *C. odorata*, but is sold with the latter in mixed batches.
Assessor: Americas Regional Workshop
Refs: 1262, 4506, 5112, 7272, 7906, 9173, 11374, 11936, 12281, 14873, 19170, 19179, 19195, 19213

Cedrela lilloi
Meliaceae  EN A1a+2cd
Argentina, Bolivia, Brazil (Santa Catarina), Paraguay, Peru
A commercial timber species of montane forest, occurring between 800 and 3400m. Colonising land after substantial disturbances, the species occurs in large, almost monodominant stands. In many areas these have been drastically reduced, the largest now remaining in regions of Santa Cruz, Bolivia.
Assessor: Llamoza, S.
Refs: 1262, 7980, 12281, 14040, 19121, 19170

Cedrela odorata
Meliaceae  VU A1cd+2cd
Antigua and Barbuda, Argentina, Barbados, Belize, Bolivia, Brazil, Cayman Islands, Colombia, Costa Rica, Cuba, Dominican, Dominican Republic, Ecuador, El Salvador, French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico (Quintana Roo), Montserrat, Nicaragua, Panama, Peru, St Kitts and Nevis, St Lucia, Suriname, Venezuela
One of the world's most important timber species. It occurs in humid or dry lowland forest, preferring well-drained soils. Exploitation has continued on a large scale over the past 200 years and the species is now widely threatened at the provenance level. Large individuals have become scarce, especially in Amazonia. Trees are often cut opportunistically while other species, such as mahogany, Amburana and Machaerium, are being sought-after. Natural regeneration is generally good, but there are reports of trees being felled before they reach maturity. Populations are protected within national parks and agricultural landscapes. Attempts are being made to establish plantations throughout the tropics.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Cedrela rosea
Bombacaceae  VU C2a
Colombia, Costa Rica, Panama
Occurring in medium-altitude forest, the species is found in scattered populations, which are never large, on the Pacific side of the Cordillera Central throughout.
Panama, and in the Chocó in Colombia and Alajuela in Costa Rica. Throughout the species range, there is evidence of medium to high human disturbance. In Chiriquí, Panama, the population is affected by annual burning.

**Assessor:** Mitre, M.

**Refs:** 7980, 16772

**Celtis balansae**

Ulmaceae VU B1+2c

New Caledonia

**Assessor:** Jaffré, T. *et al.*

**Refs:** 10351

**Celtis hypoleuca**

Ulmaceae EN B1+2c

New Caledonia

**Assessor:** Jaffré, T. *et al.*

**Refs:** 10351

**Celtis jamaicensis**

Ulmaceae LR/nt Jamaica

A species found occasionally in woodland on steep limestone hillsides in the central and eastern parishes. General habitat declines have been considerable, mostly caused by increasing agriculture.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 6057, 7980

**Celtis lindheimeri**

Ulmaceae VU B1+2c Mexico, USA (Texas)

A tree of brushlands and ravines, in Texas occurring near San Antonio and Edward's Plateau and in Mexico confined to the north.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 3786, 7980, 19163

**Celtis luzonica**

Ulmaceae VU A1cd Philippines

A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 4919, 12937

**Centaurodendron dracaenoides**

Compositae CR B1+2c Chile (Juan Fernández Is)

Preliminary data indicate the species is confined to less than 100km² and declining in numbers through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants. The genus contains three species, endemic to Juan Fernandez.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 3241, 5621, 14140

**Centaurodendron palmifforme**

Compositae CR B1+2c Chile (Juan Fernández Is)

Preliminary data indicate the species is confined to less than 100km² and declining in numbers through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants. The genus contains three species, endemic to Juan Fernandez.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 3241, 5621, 14140

**Centrolobium yavizanum**

Leguminosae VU C1 Colombia, Panama

Known only from the province of Darién, the species is uncommon and restricted to small groups of trees, principally occurring in open woodlands at river edges. Populations in Darién National Park appear to be slightly more common and well protected. Also recorded in Colombia, the species occurs equally infrequently in the Valle del Cauca and the Chocó.

**Assessor:** Mitre, M.

**Refs:** 3156, 7272, 7980, 16772

**Centronia brachycera**

Melastomataceae VU B1+2c Colombia

Endemic to Colombia, the species has been recorded from Cundinamarca, Huila and Santander.

**Assessor:** Calderon, E.

**Refs:** 19069

**Centronia laurifolia**

Melastomataceae VU D2 Peru

A species known only from a single collection in Huánuco Department.

**Assessor:** Calderon, E.

**Refs:** 19069

**Centronia mutisii**

Melastomataceae VU B1+2c Colombia

An endemic to Cundinamarca.

**Assessor:** Calderon, E.

**Refs:** 19069

**Centronia peruviana**

Melastomataceae VU B1+2c Peru

A cloud forest species apparently confined to the department of Huánuco between altitudes of 3000 and 3500m in the Peruvian Andes.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1984

**Cephalomappa sinensis**

Euphorbiaceae VU B1+2c China (Guangxi), Viet Nam

The species occurs in limestone areas in south-west Guangxi, China, and in Cao Bang in Viet Nam, where it can become dominant in moist forest below 500m. Overcutting and use of the tree as cattle forage are the main threats. In Viet Nam seedlings and young trees are abundant where the trees have been planted, but regeneration in the wild is almost non-existent. However, trees coppice well.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1818, 11847, 15357
Cephalosphaera usambarensis  
Myristicaceae  
VU B1+2b  
Kenya, Tanzania  
A monotypic genus restricted to small areas of upper moist evergreen forest in the Usambara Mountains, Southern Ngor Mountains, Uluguru Mountains and Udzungwa Mountains. A population also occurs in the Shamba Hills in Kenya. The timber, used for veneer, has been overexploited in the recent past and habitat degradation has also caused population declines. The nearest relative is a small genus, Brochoneura, in Madagascar.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 11631, 19181

Cephalotaxus fortunei  
Cephalotaxaceae  
LR/nt  
China (Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Sichuan, Yunnan, Zhejiang), Myanmar, Viet Nam  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 6190, 11191, 11530, 13041, 17186, 18751

Cephalotaxus hainanensis  
Cephalotaxaceae  
EN A2d  
China (Guangdong - Hainan)  
This species has previously been included in C. mannii and has likewise suffered population declines because of logging and more recently exploitation of bark and leaves which contain the valuable medicinal extracts, cephalotaxine and harringtonine. It is endemic to, and widespread in, lowland forest on Hainan Island. As with other members of the genus, the maturation rate of the seed is slow and regeneration is relatively infrequent.  
Assessor: SSC Conifer Specialist Group  
Refs: 848, 11191, 11847, 13041, 17186

Cephalotaxus harringtonia var. drupacea  
Cephalotaxaceae  
LR/nt  
China, Japan  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 13041, 17186

Cephalotaxus lanceolata  
Cephalotaxaceae  
VU D2  
China (Yunnan), Myanmar?  
Although closely related to C. fortunei, this species is considered to be a distinct taxon in China. It occurs in small groves within forested valleys up to 1900m in Gongsan County. An occurrence in Myanmar is recorded, but there is no collected material from here. Exploitation of the taxon for the medicinal properties of its bark, and also of the habitat for its timber resources, are the main threats to the species.  
Assessor: SSC Conifer Specialist Group  
Refs: 1818, 11191, 13041, 17186

Cephalotaxus mannii  
Cephalotaxaceae  
VU A1d  
China (Guangdong, Guangxi, Xizang, Yunnan), India (Assam, Meghalaya, Nagaland), Myanmar, Viet Nam  
Although widespread, the species has become rarer because of heavy exploitation, initially of the timber in the 1960s, but now of the bark and leaves which contain medicinal extracts, shown to be effective against leukaemia and lymphoma. The populations in China often only occur in low densities and in remote areas. Parts of the Indian population are sometimes referred to as C. griffithii.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 1818, 11191, 11530, 11847, 13041

Cephalotaxus oliveri  
Cephalotaxaceae  
VU A1d  
China (Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan, Yunnan), India, Laos, Thailand, Viet Nam  
Populations of this relict species are being rapidly depleted through logging and clearing of the lowland moist forest habitat. The plant has strong sprouting capacity but regeneration by sexual reproduction appears to be slow, possibly because of its dioecious nature. It is also a rich source of the anti-cancer extracts cephalotaxine and harringtonine, but exploitation does not appear to be large-scale.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 1818, 11530, 11847, 13041, 15357

Cephalotaxus wilsoniana  
Cephalotaxaceae  
EN C2a  
Taiwan  
Widely distributed but locally very scarce, the species occurs in areas of forest above 1800m which have been subject to extensive conversion into agricultural crops, commercial plantations and settlements. There are protected populations within Yushan and Taroko National Parks.  
Assessor: Lu, S.Y. & F.J. Pan  
Refs: 374, 2106, 13041, 19050

Ceratonia oreothauma ssp. oreothauma  
Leguminosae  
VU A1cd  
Oman, Yemen  
The main distribution of this species lies in the eastern Hajar Mountains in northern Oman in wadis and at the summit above 1500m. An isolated population is recorded from Hadramaut in South Yemen. The eastern part of the Hajar population is contained within Wadi Siren Nature Reserve. In the north-west the population is not regenerating.  
Assessor: Ghazanfar, S.A.  
Refs: 13174, 16380

Ceratonia oreothauma ssp. somalensis  
Leguminosae  
EN B1+2d, C1+2a, D1  
Somalia  
Less than 10 trees have been seen during the last 15 years in the escarpment area south of Mait. Two individuals were seen in January 1997 south-west of Qandala some 280km to the east. More individuals are likely to exist in both areas. The habitat and the wood from this tree are used for multiple purposes and remain unprotected.  
Assessor: Thuin, M.  
Refs: 13174, 18665

Ceratopterum succirubrum  
Cunoniaceae  
VU A2cd  
Australia, Indonesia (Irian Jaya), Papua New Guinea  
In Papua New Guinea populations are mainly confined to Western Province, where they are scattered in primary rainforest or monsoon forest. They are confined to an area which is heavily logged. The wood is decorative.
and exported in small quantities. Ongoing exploitation will result in population decline and habitat destruction. More information is needed on the population status in Australia.  
Assessor: Eddowes, P.J.  
Refs: 19114

*Cerberispora nitrotila*  
Apocynaceae  
EN B1+2c  
New Caledonia  
The species is uncommon and confined to a small area in the south-east of Grand Terre encompassing parts of the Ouinné valley and along the Comboue River.  
Assessor: Jaffré, T. et al.  
Refs: 10351, 12630

*Cerberispora obtusifolia*  
Apocynaceae  
VU B1+2c  
New Caledonia  
A relatively widely occurring species confined to remnant patches of sclerophyllous forest along the northern half of the west coast. The habitat is fragmented and reduced in extent. Fires, grazing and encroaching agriculture are continuing threats.  
Assessor: Jaffré, T. et al.  
Refs: 10351, 12630

*Cercidiphyllum japonicum*  
Cercidiphyllaceae  
LR/nt  
China (Anhui, Gansu, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Shanxi, Sichuan, Zhejiang), Japan  
A rare tree found in temperate beech forests in Japan and in remnant patches of broadleaved forest in China. The main threat to the species is poor regeneration. The katsura-tree is an important timber species in Japan.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 4506, 11847

*Cercis canadensis*  
Leguminosae  
EX  
Canada (Ontario), USA (Connecticut)  
Assessor: World Conservation Monitoring Centre  
Refs: 13404, 15828

*Cercocarpus traskiae*  
Rosaceae  
CR D1  
USA (California)  
A shrub or small tree, which is endemic to Catalina Island. A single wild population exists, consisting of seven individuals in a canyon covering an area of approximately 250 m².  
Assessor: World Conservation Monitoring Centre  
Refs: 19033

*Ceroxylon alpinum*  
Palmae  
EN B1+2c  
Colombia, Ecuador, Venezuela  
A species of montane rainforest. In Colombia, the species is particularly under threat from habitat conversion to agriculture, but trees survive in deforested areas or coffee plantations. Regeneration is poor.  
Assessor: Bernal, R.  
Refs: 19069, 19118

*Ceroxylon quindiuense*  
Palmae  
VU B1+2c  
Colombia  
The national tree of Colombia, occurring in montane rainforest in the Andes. The habitat has come under severe pressure from increasing agriculture. Adult trees, although protected by law, are removed for ornamental use. The leaves, too, are collected in large quantities for use in religious festivals, although there is now mounting pressure to halt overcollection.  
Assessor: Bernal, R.  
Refs: 19069, 19118

*Ceroxylon sasaimae*  
Palmae  
CR B1+2c  
Colombia  
A palm tree of montane rainforest, principally found in the Cordillera Oriental. Trees survive in coffee plantations. Leaves are used in religious festivals.  
Assessor: Bernal, R.  
Refs: 19069, 19118

*Cestrum chimborazinum*  
Solanaceae  
VU B1+2c  
Ecuador  
An endemic of Ecuador currently known from the upper montane cloud forest of Chimborazo in the High Andes.  
Assessor: World Conservation Monitoring Centre  
Refs: 19119, 19120

*Chaetocarpus coriaceus*  
Euphorbiaceae  
VU A1c  
Sri Lanka  
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 17195, 19112

*Chaetocarpus pubescens*  
Euphorbiaceae  
CR B1+2c  
Sri Lanka  
A tree confined to the lowland rainforests of south-west Sri Lanka. This species was not rediscovered during the comprehensive National Conservation Review forest surveys, suggesting it is either extremely rare or possibly extinct.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 17195, 19112

*Chamaecrista bucherae*  
Leguminosae  
VU D2  
Cuba  
This shrub rarely attains the size of a small tree. An uncommon species, it is confined to the lowland serpentine shrublands of the coastal zone north of the Moa Mountains. In some places the habitat is degraded.  
Assessor: Areces-Mallea, A.E.  
Refs: 19149

*Chamaecyparis formosensis*  
Cupressaceae  
VU A1a  
Taiwan  
A long-living emergent, which usually forms pure stands in medium to high elevation cloud forest. Many large trees were felled in the past and exported as timber to Japan. Over a hundred large trees have been preserved as a monument near Yuanyang Lake and Lala Mountain. Regeneration is good where it is not prevented by the planting of commercial species and the invasion of broadleaved species in the undergrowth. Plantations are now being established.  
Assessor: Lu, S.Y. & F.J. Pan  
Refs: 2106, 11847, 13041, 19050, 19051
Species Summaries

Chamaecyparis lawsoniana
Cupressaceae  VU A1de+2de
USA (California, Oregon)
Natural populations of Port Orford cedar are confined to coniferous forest in coastal areas from Coos Bay to Mad River. International trade in the timber has put enormous pressure on the remaining old growth stands. The spread of the introduced pathogen Phytophthora lateralis continues at a rapid rate and prevents successful regeneration in many areas, especially those accessible by road.
Assessor: SSC Conifer Specialist Group
Refs: 7222, 13041

Chamaecyparis obtusa var. formosana
Cupressaceae  VU A1ac
Taiwan
Occurring in association with, but in a more restricted range than, C. formosensis, this variety is found in moist evergreen forest at medium elevations. It also provides a more valuable timber, and rates of exploitation have in the past been very high. Protected populations occur in Yuanyang Lake Reserve and Yushan National Park. Plantations have also been established. The species is sometimes known under the name C. taiwanensis.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 374, 2106, 13041, 19050, 19051

Chamaecyparis obtusa var. obtusa
Cupressaceae  VU A1c
Japan
There is concern over this species because of the extent of timber exploitation. Japan has apparently turned to importing C. lawsoniana from the USA because of the low levels of supply of the native species. A ban on logging is now in effect. Remnant populations are known to occur in submontane forest in South Honshu, Shikoku and Kyushu Islands.
Assessor: SSC Conifer Specialist Group
Refs: 5287, 7222

Chamaecyparis thyoides var. henryae
Cupressaceae  LR/nt
USA (Alabama, Florida, Mississippi)
A variety which is very scattered in the drier parts of Taxodium forests, but it is not under any threat.
Assessor: SSC Conifer Specialist Group
Refs: 374, 11886, 13041

Chamaesyce atato
Euphorbiaceae  VU B1+2c
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Chamaesyce atroacoca
Euphorbiaceae  VU D2
USA (Hawaii)
Known only from an area in the west of Kauai, the species occurs in various forest types up to an altitude of 900m altitude. A population once recorded in the north of the island near Kiluaea is thought no longer to exist.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chamaesyce celsastroides var. celsastroides
Euphorbiaceae  LR/nt
USA (Hawaii)
One of the recognised varieties of a widespread and variable species. It occurs at low elevations on Nihoa, Nihau and Kauai.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chamaesyce celsastroides var. hanapepensis
Euphorbiaceae  LR/nt
USA (Hawaii)
One of the recognised varieties of a widespread and variable species. It is endemic to Kauai where it is restricted to rainforest at high elevations.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chamaesyce celsastroides var. kaenana
Euphorbiaceae  EN B1+2c
USA (Hawaii)
One of the recognised varieties of a widespread and variable species. Approximately 10 populations, consisting of about 545 individuals in total, are located in coastal dry shrubland, principally at Kaena Point but with small populations in Alau Gulch, Waianae Kai and Keawaula. Fires and alien species are the major threats to remaining populations. The variety is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19168

Chamaesyce celsastroides var. laehiensiis
Euphorbiaceae  VU A1ce
USA (Hawaii)
One of the recognised varieties of a widespread and variable species. It is known from low elevations on Lanai and near Manawainui on East Maui.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chamaesyce celsastroides var. lorifolia
Euphorbiaceae  VU A1ce
USA (Hawaii)
One of the recognised varieties of a widespread and variable species. It is one of the dominant components of high elevation dry forest on Maui and Lanai, on which it has become particularly scarce. Disturbance caused by grazing, conversion to pastureland and the invasion of alien grasses, increasing the likelihood of serious fires, have all contributed to the decline in the habitat.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chamaesyce celsastroides var. stokesi
Euphorbiaceae  VU A1ce
USA (Hawaii)
One of the recognised varieties of a widespread and variable species. It is found in beach vegetation on Niihau, Kauai, Molokai and Kahoolele. The habitat has been in rapid decline because of the spread of goats and other feral animals and invasive plants.
Assessor: World Conservation Monitoring Centre
Refs: 3372
Chamaesyce celastroides var. tomentella
Euphorbiaceae
USA (Hawaii)
One of the recognised varieties of a widespread and variable species. Specimens were known only from Oahu. It has not been found in recent decades and is presumed extinct.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chamaesyce herbstii
Euphorbiaceae
USA (Hawaii)
Currently the species is known from four populations in the north and central Waianae Mountains on Oahu. There are estimated to be fewer than 200 plants in total. The lowland rainforest habitat is steadily being degraded by feral pigs and invasive plants. Protective and monitoring measures are being carried out on the population in Pahole Natural Area Reserve. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 12359, 191168

Chamaesyce olowaluana
Euphorbiaceae
USA (Hawaii)
This species was once common over a wide altitudinal range forming dry open forests up to 2800m on western Maui and Hawaii. Disturbance caused by grazing, conversion to pastureland and the consequent invasion of introduced grasses increasing the likelihood of serious fires have all contributed to the decline in this habitat.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chamaesyce rockii
Euphorbiaceae
USA (Hawaii)
Usually a compact shrub but sometimes a tree, the species is confined to the Koolau Mountains on Oahu, where it is scattered in rainforest, primarily along cloudswepge ridges up to 830m. Between 200 and 400 plants are estimated to exist in 11 populations, the majority of which lie in the Kawaiola Training Area. The vegetation is liable to be damaged or degraded by feral goats, invasive plants and military activities. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 12359, 191168

Chamaesyce sachetiana
Euphorbiaceae
French Polynesia (Society Is.)
The species is endemic to the Marquesas, occurring as a herb, shrub or small tree in Eiao, Nuku Hiva, Ua Huka, Ua Pou in the northern group and Fatu Hiva, Hiva Oa and Mohotani in the south. It is a strictly littoral species, occurring from sea level to 450m on rocky beaches, cliffs and rarely in secondary forest and abandoned pastureage.
Assessor: Florence, J.
Refs: 19169

Chamberyonia lepidota
Palmae
New Caledonia
A species of schistose soils, restricted to the north-east of the island.
Assessor: Jaffré, T. et al.
Refs: 10351, 19118

Charpentiera densiflora
Amaranthaceae
USA (Hawaii)
The species is confined to Kauai, where it occurs, sometimes as a dominant component, in *halo forest up to 250m along the Napali coast. The habitat has declined severely and is widely replaced by introduced flora.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chassalia albiflora
Rubiacceae
Tanzania
The range of the species is confined to the East Usambara Mountains, where it occurs within moist forests at altitudes of 800m to 1050m.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Cheirodendron dominii
Araliaceae
USA (Hawaii)
One of the four endemic Cheirodendron taxa restricted to Kauai. It is ecologically and altitudinally distinct occurring in rainforest between 1525 and 1550m just below the summit of Mount Waialeale.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Cheirodendron forbesii
Araliaceae
USA (Hawaii)
A tree known from three locations on Kauai Island. It is restricted to rainforest up to 890m on Mount Kahili, Makaleha Mountains and the Powerline Trail.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Chelyocarpus dianeurus
Palmae
Colombia
A single-stemmed palm of rainforest, occurring on well-drained soils in the Pacific lowlands of Colombia. In some undisturbed areas, the species occurs in abundance and is under little threat at present. Leaf sheath fibre is used locally for pillow stuffing.
Assessor: World Conservation Monitoring Centre
Refs: 19118

Chiagogiodendron mexicanum
Flacourtiaceae
Mexico (Chiapas, Veracruz)
This monotypic genus is confined to the remnant rainforest of the Gulf region of Mexico, only occurring in abundance in Uxpanapa. It is the only New World member of its tribe.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 5993, 7980
Chimarrhis cymosa ssp. jamaicensis
Rubiacae
Jamaica
This subspecies is found infrequently in remaining areas of woodland on limestone in areas of high rainfall. Other subspecies are confined to the Lesser Antilles and Cuba.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Chionanthus adamsii
Oleaceae
EN B1+2c
Jamaica
Known only from Trelawny, the species is uncommon and restricted to areas of woodland on limestone hilltops.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Chionanthus avilensis
Oleaceae
VU D2
Venezuela
An evergreen tree, apparently restricted to a single location in forest on Cerro Avila in north Venezuela.
Assessor: World Conservation Monitoring Centre
Refs: 1030

Chionanthus caudifolius
Oleaceae
LR/cd
Malaysia (Peninsular Malaysia)
A rare tree inhabiting montane rainforest between 1210 and 1450m in Perak and Pahang (Cameron Highlands).
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Chionanthus caymanensis var. caymanensis
Oleaceae
VU D2
Cayman Islands
Confined to Cayman Brac and Little Cayman, the species occurs in dry evergreen woodland on dolomite karst. Populations are stable and there are extensive primary stands of the habitat remaining. However, if the trends in real estate development spread from Grand Cayman, there is potential for rapid deforestation.
Assessor: World Conservation Monitoring Centre
Refs: 19137

Chionanthus caymanensis var. longipetala
Oleaceae
EN B1+2bcd
Cayman Islands
The species is endemic to the Cayman Islands, occurring in dry evergreen woodland on dolomite karst. This variety is confined to Grand Cayman, where the habitat has been 95% destroyed in the west. Clearing continues and trees are cut for fence posts and house construction. No trees are retained for landscaping, nor are they being replanted. There are, however, some areas where the taxon occurs abundantly and it is well represented in protected areas.
Assessor: World Conservation Monitoring Centre
Refs: 16261, 17038, 19137

Chionanthus filiformis
Oleaceae
LR/nt
Brazil (Paraná, Rio de Janeiro, Santa Catarina, São Paulo)
An evergreen species found in rainforest, often near rivers, in south-east coastal Brazil. It is well collected which may indicate that it is common. However, it is restricted to a habitat which has been extensively destroyed.
Assessor: World Conservation Monitoring Centre
Refs: 1030

Chionanthus fluminensis
Oleaceae
CR B1+2c
Brazil (Rio de Janeiro)
A species with a very local distribution. It was once well collected, probably because of its proximity to the city of Rio de Janeiro. It does not appear to have been collected this century.
Assessor: World Conservation Monitoring Centre
Refs: 1030

Chionanthus jamaicensis
Oleaceae
VU B1+2c
Jamaica
This species is found only in areas of woodland in St Andrew Parish. Almost all forested areas in this parish are completely cleared or severely degraded.
Assessor: Bellingham, P.
Refs: 401, 5653, 7980, 19116

Chionanthus lancefolius
Oleaceae
LR/cd
Malaysia (Peninsular Malaysia)
A small tree of montane rainforest up to 1600m. It receives a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 9073, 19073

Chionanthus leprocarpa var. courtalensis
Oleaceae
EN B1+2c
India (Kerala, Tamil Nadu)
A medium-sized tree, recorded from scattered localities in the Agastymalai Hills and in two sites in the mountain ranges further north. It occurs in evergreen forest between 700 and 1500m.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Chionanthus linoceroides
Oleaceae
EN B1+2c
India (Kerala, Tamil Nadu)
A species of lowland forest, recorded only rarely from scattered localities in the vicinity of the Agastymalai Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but about 1000km² of forest remain protected within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Chionanthus micranthus
Oleaceae
VU B1+2c
Brazil (Bahia)
Endemic to the coastal forest of Bahia, this small evergreen tree is little known and rare.
Assessor: World Conservation Monitoring Centre
Refs: 1030
Chionanthus proctorii
Oleaceae
Jamaica
A poorly known and uncommon species. It is found on a wooded limestone hillside in Westmoreland.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 1980

Chionanthus richardiae
Oleaceae
Zambia
This species occurs in open bush, often on steep slopes on sandy or stony soil, but so far it is recorded only in the vicinity of the Kalambo Falls.
Assessor: World Conservation Monitoring Centre
Refs: 18965

Chionanthus spiciflorus
Oleaceae
Malaysia (Peninsular Malaysia)
A very rare tree confined to one locality in Selangor.
Assessor: World Conservation Monitoring Centre
Refs: 19073

Chionanthus subsessilis
Oleaceae
Brazil (Minas Gerais)
Presumed to be an evergreen tree, this species was collected only once, over a century ago, from Minas Gerais.
Assessor: World Conservation Monitoring Centre
Refs: 1030

Chionanthus tenuis
Oleaceae
Brazil (Rio de Janeiro)
A small tree which has been collected only once, over 50 years ago, from remnant forest in Rio de Janeiro.
Assessor: World Conservation Monitoring Centre
Refs: 1030

Chionanthus wurdackii
Oleaceae
Peru
A tree known only from one location along Rio Marañon in the Amazonas region of Peru. Its wood has been described as extremely hard.
Assessor: World Conservation Monitoring Centre
Refs: 1030

Chisocheton pauciflorus
Meliaceae
Malaysia (Peninsular Malaysia), Singapore?
A shrubby tree up to 16m tall, inhabiting moist lowland primary forest up to an altitude of 550m. It can be found throughout western and southern parts of Peninsular Malaysia, in many areas which have been converted for non-forest land use.
Assessor: Chua, L.S.L.
Refs: 9199, 17140, 19073

Chisocheton perakensis
Meliaceae
Malaysia (Peninsular Malaysia)
This tree grows up to 16m tall and is confined to the upper hill forest on Maxwell Hill, Taiping, in the state of Perak.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Chisocheton stellatus
Meliaceae
Indonesia (Irian Jaya), Papua New Guinea
Endemic to New Guinea, this tree of primary and secondary rainforest is known from only a few collections. In Papua New Guinea, the species was collected once in an area in Madang Province that is subject to ongoing logging, including wood chipping operations. In Irian Jaya, the species is known only from Geelvink Bay and Jayapura.
Assessor: Eddowes, P.J.
Refs: 19114

Chlorocardium rodiei
Lauraceae
Brazil, French Guiana, Guyana, Suriname, Venezuela
Occurring in northern Brazil, Venezuela and the Guyanas, the species is a dominant component of a restricted belt of lowland rainforest on brown sand, and is also found occasionally in other forest types. A large part of the total population is confined to Guyana. The species is found in low densities in western Venezuela and only in a small concentration along Maratitaka River in Suriname. The production of greenheart timber has declined significantly over the past 50 years. It is not known whether this represents falling supplies or just a greater interest in the plywood market. Regeneration in natural stands is very slow and poor germination success is inhibiting the establishment of plantations.
Assessor: Americas Regional Workshop
Refs: 5672, 10263, 13947, 17854, 19159, 19179, 19196

Chloroleucon chacoense
Leguminosae
Argentina (Salta), Bolivia, Paraguay
An endemic to a small area of subandean piedmont forest, occurring from north-west Argentina to Paraguay, possibly extending into Bolivia. It is a notably uncommon tree within a habitat which is unprotected and under constant decline with logging, encroaching agriculture and pastoralism.
Assessor: Prado, D.
Refs: 1262, 5994, 7980

Chloroleucon euryclatum
Leguminosae
Venezuela
This species is known only from the type locality, in the lower Río Paragua, Bolívar State.
Assessor: World Conservation Monitoring Centre
Refs: 5994

Chloroleucon mangense var. tetrazyx
Leguminosae
Venezuela
A tree of xeromorphic scrub woodland endemic to Bolívar.
Assessor: World Conservation Monitoring Centre
Refs: 5994
### Chloroleucon tortum
**Leguminosae**
**CR B1+2c**
Brazil (Rio de Janeiro)
A shrubby tree restricted to *restinga* and thickets on sandy soils along the coast of Rio de Janeiro State.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 5994

### Chloroxylon swietenia
**Rutaceae**
**VU A1c**
India (Andhra Pradesh, Kerala, Tamil Nadu), Madagascar, Sri Lanka
East Indian satinwood occurs in dry mixed evergreen forest. It is a slow-growing species which has become very scarce in most areas because of timber exploitation.
**Assessor:** Asian Regional Workshop
**Refs:** 6431, 8483, 15431, 17759, 18796, 19057

### Chodanthus montecillensis
**Bignoniaceae**
**CR C2a**
Honduras
A tree of humid forest at high elevations. Its nomenclatural status is somewhat uncertain.
**Assessor:** Nelson, C.
**Refs:** 13995

### Chordospartium muritai
**Leguminosae**
**CR D1**
New Zealand (South Is.)
Confined to a site in Clifford Bay in Marlborough, only twelve wild plants survive in a remnant of coastal forest. There are only two species in the genus, both endemic to New Zealand.
**Assessor:** Oates, M.R. & P. J. de Lange
**Refs:** 902, 9800, 10734, 17368, 19133

### Chordospartium stevensonii
**Leguminosae**
**VU D2**
New Zealand (South Is.)
Endemic to Marlborough, this small tree usually grows in scrubby sites near streams, except in one area where it forms its own forest type. Surveys in the early 1980s estimated a population figure of less than 200 individuals in total, but the number has now increased. Habitat deterioration has resulted in the invasion of grasses and weeds in places, and regeneration is sometimes prevented by grazing deer and livestock. There are only two species in the genus, both endemic to New Zealand.
**Assessor:** de Lange, P.J.
**Refs:** 902, 17637, 19133, 19134

### Chosenia arbutifolia
**Salicaceae**
**VU A1c**
China (Heilongjiang, Jilin, Liaoning), Former USSR (Russia North, Sakhalin), Japan, North Korea
Although occurring over a wide range, the species is confined to lowland forest and is in severe decline because of loss and degradation of this habitat. Regeneration is poor. The genus is monotypic.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1818, 9957, 11847, 13143, 16250

### Chrysophyllum acoeleanum
**Sapotaceae**
**VU B1+2c**
Brazil (Acre, Amazonas)
A timber species recorded from *várzea* and non-flooded lowland forests in a few sites in western Amazonia.
**Assessor:** Pires O'Brien, J.
**Refs:** 1983, 7980, 8816

### Chrysophyllum albidum
**Sapotaceae**
**VU D2**
Peru
Apparently the species has not been recorded since it was first collected in the first half of the century from San Martín, where it occurred in lowland rainforest between 400 and 800m.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

### Chrysophyllum arenarium
**Sapotaceae**
**LR/nt**
Brazil (Ceará, Maranhão, Pernambuco)
Widely scattered in dry open forest locations, the species is relatively well collected and does not appear to be declining in any way.
**Assessor:** Pires O'Brien, J.
**Refs:** 1983, 7980, 8816

### Chrysophyllum azaguieanum
**Sapotaceae**
**EN B1+2c**
Côte d'Ivoire, Ghana
This species is strictly confined to wet evergreen forest in Ghana and Côte d'Ivoire, where general losses of this forest type have been significant over the past century. It is an understorey tree quite unlike other members of the genus.
**Assessor:** Hawthorne, W.
**Refs:** 8369, 12061

### Chrysophyllum bombycinum
**Sapotaceae**
**LR/nt**
Brazil (Amazonas), Peru
A newly described species currently known from two main locations in the western Amazon. Several occurrences are recorded in non-flooded forest, usually on white sand in Loreto in Peru. The species also occurs further east in Brazil.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

### Chrysophyllum brencii
**Sapotaceae**
**LR/cd**
Costa Rica, Panama
A species mainly known from Costa Rica, but also occurring in Cochlé in Panama. It is found in semi-deciduous forest and in association with oak, ascending to 1100m. It has been recorded in Santa Rosa, Braulio Carillo and Santa Ana National Parks in Costa Rica.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 8816

### Chrysophyllum claraense
**Sapotaceae**
**CR B1+2c**
Cuba
A shrub or small tree known from coastal scrub and forest in Casilda, Sancti-Spiritus Province. The habitat in this area has become severely degraded by urban expansion and tourism. Another unconfirmed record of this species has been made from Pinar del Río.
**Assessor:** Areces-Mallea, A.E.
**Refs:** 16327, 18485, 19149
*Chrysophyllum durifructum*
Sapotaceae  
Brazil (Amazonas)  
A tree species of non-flooded lowland forest. It is known only from the type collection from the north of Manaus.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 19790, 19816

*Chrysophyllum eurypholium*
Sapotaceae  
Colombia  
A newly described species, known from the type specimen, which was collected from César some 50 years ago and from one other collection from Bolívar. It is recorded as a straggling treelet scattered on the forest edge and in savanna.  
Assessor: Calderon, E.  
Refs: 19790, 19816, 19069

*Chrysophyllum flexuosum*
Sapotaceae  
Brazil (Bahia, Minas Gerais, Rio de Janeiro, São Paulo)  
A small tree of lowland coastal rainforest and gallery forest in drier inland localities. It has recently been collected from a number of new sites, including Ilha do Cardoso State Park in São Paulo.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 19790, 19816

*Chrysophyllum hirsutum*
Sapotaceae  
Costa Rica, Panama  
A montane or cloud forest species recorded from a number of sites in Alajuela in Costa Rica and Coclé, Colón and Panamá Provinces in Panama.  
Assessor: World Conservation Monitoring Centre  
Refs: 19816

*Chrysophyllum imperiale*
Sapotaceae  
Brazil (Minas Gerais, Rio de Janeiro)  
A large tree known from several sites of lowland rainforest, one being a plantation, on the Atlantic coast. The natural habitat of the species has been greatly reduced in recent decades.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 19790, 19816

*Chrysophyllum inornatum*
Sapotaceae  
Brazil (Paraná, Rio Grande do Sul, Santa Catarina)  
A small tree of coastal rainforest. The known range of this species has increased. It also occurs in Ilha do Cardoso State Park in São Paulo.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 19790, 19816

*Chrysophyllum januariense*
Sapotaceae  
Brazil (Rio de Janeiro)  
A tree of lowland coastal rainforest. It has been collected only from the type locality in Laranjeiras Forest, Rio de Janeiro, but it can no longer be found there.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 19790, 19816

*Chrysophyllum lanatum*
Sapotaceae  
Colombia  
A newly described species, endemic to Colombia, and currently known only from an area of montane rainforest between 2700 and 3000m in Cauca.  
Assessor: Calderon, E.  
Refs: 19790, 19816, 19069

*Chrysophyllum lucentifolium ssp. lucentifolium*
Sapotaceae  
Brazil (Bahia, Espírito Santo, Rio de Janeiro)  
The more restricted of the two subspecies. The taxon is confined to the coast of Brazil between Bahia and Rio de Janeiro, where the lowland forest habitat has seriously declined in extent and continues to be threatened by development and settlement. It has been recorded in Linhares Forest Reserve in Espírito Santo.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 19790, 19816

*Chrysophyllum ovale*
Sapotaceae  
Bolivia, Brazil (Acre), Peru  
A lowland rainforest tree recorded from separate localities, one in Amazonian Peru and the other in the border area between Acre in Brazil and Beni in Bolivia.  
Assessor: World Conservation Monitoring Centre  
Refs: 19790, 19816

*Chrysophyllum paranaense*
Sapotaceae  
Brazil (Paraná, São Paulo)  
A tree confined to lowland evergreen coastal forest in an area where increasing development and settlement are causing serious habitat declines.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 19790, 19816

*Chrysophyllum parvulum*
Sapotaceae  
Colombia, Venezuela  
A tree which is currently known from two widely separated areas, occurring in several sites in lowland evergreen rainforest in Carabobo and Lara in northern Venezuela and in a small endangered population in montane forest at 2000m in Valle in Colombia.  
Assessor: World Conservation Monitoring Centre  
Refs: 19790, 19816, 19069

*Chrysophyllum pauciflorum*
Sapotaceae  
Puerto Rico, Virgin Islands (US)  
A tree of semi-deciduous dry forest and thickets on hills up to 750m. Occurrences are recorded from the serpentine barrens in Puerto Rico and from St Croix, St John and St Thomas in the Virgin Islands.  
Assessor: World Conservation Monitoring Centre  
Refs: 19790, 19816

*Chrysophyllum revolutum*
Sapotaceae  
Peru  
A small tree known only from the region of Tarapoto in San Martin, where it occurs in rainforest at an altitude of 750m.  
Assessor: World Conservation Monitoring Centre  
Refs: 19790, 19816
**Chrysophyllum splendens**
Sapotaceae  
Brazil (Bahia, Espírito Santo, Pernambuco)
A species restricted to remaining wet coastal rainforest in an area which is seriously threatened by increasing settlement and development. An occurrence is recorded in the Linhares Forest Reserve in Espírito Santo.
*Assessor: Pires O’Brien, J.*
*Refs: 1983, 7980, 8816*

**Chrysophyllum subspinum**
Sapotaceae  
Brazil (Bahia)
Little information is available on this species. It apparently occurs in two sites of dry forest.
*Assessor: Pires O’Brien, J.*
*Refs: 1983, 7980, 8816*

**Chrysophyllum superbum**
Sapotaceae  
Brazil (Amazonas)
A lowland forest species, only known from the type collection made in 1941 in western Amazonia.
*Assessor: Pires O’Brien, J.*
*Refs: 1983, 7980, 8816*

**Chrysophyllum viride**
Sapotaceae  
Brazil (Espírito Santo, Paraná, Rio de Janeiro, Santa Catarina, São Paulo)
A widely occurring species of the Atlantic slopes of Brazil from Espírito Santo to Santa Catarina and Paraná. It occurs in rainforest up to 1000m and also in periodically flooded forest.
*Assessor: World Conservation Monitoring Centre*
*Refs: 8816*

**Chunia bucklandioides**
Hamamelidaceae  
China (Guangdong - Hainan)
Confined to Hainan Island the species is now only found on Diaolu Mountain and Jingfeng Mountain occurring in forested gullies at altitudes of 600 to 700m. Populations in Ding'an Qionghzhong, Boating and Yaxian have apparently disappeared. It is the only species in the genus.
*Assessor: World Conservation Monitoring Centre*
*Refs: 1818, 11847*

**Chytranthus manni**
Sapindaceae  
São Tomé & Príncipe
A shrub or small tree collected numerous times. Its fruit are edible and traded locally. Trees must be planted if the resource is to be harvested sustainably over the long term.
*Assessor: World Conservation Monitoring Centre*
*Refs: 2724*

**Chytranthus obliquinervis**
Sapindaceae  
Kenya, Tanzania
A tree of dry forest, restricted to localised populations on the East African coast. Pressures exist from a growing human population and the demand for land to cultivate.
*Assessor: World Conservation Monitoring Centre*
*Refs: 6396, 12067*

**Cinnadenia malayana**
Lauraceae  
Malaysia (Peninsular Malaysia)
A newly described species, known only from two collections, found in hill forest in Selangor and Negri Sembilan.
*Assessor: Chua, L.S.L.*
*Refs: 8464, 19073, 19182*

**Cinnamodendron corticosum**
Canellaceae  
Jamaica
The species has a local distribution confined to Portland and St Thomas in remaining areas of rainforest between 300 and 1000m. The habitat, especially in St Thomas, has been heavily destroyed and degraded. Very little forest remains.
*Assessor: Bellingham, P.*
*Refs: 401, 5653, 7980, 19116*

**Cinnamodendron cubense**
Canellaceae  
Cuba
A very rare tree found in rainforest and the upper limit of the montane semi-deciduous forest in eastern Cuba. Habitat declines have been severe in places.
*Assessor: Areces-Mallea, A.E.*
*Refs: 9522, 11403, 19149*

**Cinnamomum balansae**
Lauraceae  
Viet Nam
A large tree restricted to lowland primary evergreen forest in Hà Tĩnh (Ba Vi) and Nhịn Bính (Cúc Phuong) in northern Viet Nam. Very little habitat remains and the species is also suffering from poor regeneration, with a complete absence of seedlings and young trees under the canopy of parent trees. The durable wood is exploited for construction and joinery.
*Assessor: World Conservation Monitoring Centre*
*Refs: 848, 15357*

**Cinnamomum brevipedunculatum**
Lauraceae  
Taiwan
A tree of dry lowland forest, confined to the southern part of the Hengchun Peninsula, partially contained within Kenting National Park. Increasing human activities, agriculture and settlement have caused extensive habitat losses.
*Assessor: Pan, F.J.*
*Refs: 3295, 19050*

**Cinnamomum capparu-coronde**
Lauraceae  
Sri Lanka
This uncommon tree is restricted to the lowland wet evergreen forests of south-west Sri Lanka. During the extensive National Conservation Review forest surveys, this species was recorded in 10 localities.
*Assessor: World Conservation Monitoring Centre*
*Refs: 17195, 17278, 19112*

**Cinnamomum chemungianum**
Lauraceae  
India (Tamil Nadu)
Known only from the type collection, the species occurs in the forest understorey at 1400m in the Agasthiamalai Hills. Large areas have been exposed to fires, grazing,
the establishment of commercial plantations and cutting for fuelwood, but about 1000km² of forest remain protected within sanctuaries.

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Cinnamomum citriodorum**
Lauraceae EN B1+2c Sri Lanka
A threatened species apparently restricted to Ratnapura and Monaragala Districts. It was discovered in only five forest localities surveyed for the comprehensive National Conservation Review.

Assessor: World Conservation Monitoring Centre
Refs: 8203, 12129, 18796, 19112

**Cinnamomum filipendulum**
Lauraceae EN B1+2c India (Kerala, Tamil Nadu)
A tree of submontane forest, known from three or four collections from scattered localities at the southern end of the Western Ghats.

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Cinnamomum heyrneanum**
Lauraceae DD India (Karnataka)
A very poorly known species, recorded from a single unspecified locality.

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Cinnamomum japonicum**
Lauraceae LR/nt China (Jiangsu, Zhejiang), Japan, North Korea, South Korea, Taiwan
A tree occurring in isolated populations on coastal islands in China, throughout Taiwan and parts of North and South Korea and Japan. It is found in lowland evergreen forest, where it is susceptible to habitat clearance and conversion to agriculture.

Assessor: World Conservation Monitoring Centre
Refs: 1818, 6469, 11847, 16220

**Cinnamomum kanaharae**
Lauraceae EN A1acd Taiwan
A tree of low to mid-elevation broadleaved forest. Populations are scattered over a relatively wide range.

Assessor: Lu, S.Y. & F.J. Pan
Refs: 6469, 19051

**Cinnamomum kotoense**
Lauraceae CR C2a Taiwan
A beautiful tree restricted to a few small populations in lowland broadleaved forest on Lanyu Island. Although, there are up to 200 or more mature trees, only a small fraction of that number set seed. The species is of local importance as an ornamental and as a source of medicine.

Assessor: Lu, S.Y. & F.J. Pan
Refs: 3295, 7933, 19050, 19051

**Cinnamomum litseifolium**
Lauraceae VU B1+2c Sri Lanka
During the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, the species was found in three forest localities. It appears to be locally common in Horton Plains National Park.

Assessor: World Conservation Monitoring Centre
Refs: 17759, 18796, 19112

**Cinnamomum macrostemon**
Lauraceae VU C2a Taiwan
Although the species is widely scattered in low to medium elevation forest throughout the island, populations are mostly isolated and under heavy exploitation for the medicinal extract that can be obtained from the leaves and bark. Establishment of industrial plantations and increasing land settlement have also had an extensive impact on the habitat.

Assessor: Lu, S.Y. & F.J. Pan
Refs: 19050, 19051

**Cinnamomum mairei**
Lauraceae EN B1+2c China (Sichuan, Yunnan)
Restricted to south-west Sichuan and north-east Yunnan in submontane forest, the populations have been seriously reduced because of overexploitation of the bark for medicinal use and habitat clearance. Regeneration is reported to be poor and the species is being rapidly replaced by other broadleaved species in places.

Assessor: Sun, W.
Refs: 1818, 11847, 19055

**Cinnamomum matheusi**
Lauraceae VU D2 Peru
A species known only from its type collected from Amazonas Department in the Peruvian Amazon.

Assessor: World Conservation Monitoring Centre
Refs: 1984

**Cinnamomum mercadoi**
Lauraceae VU A1d Philippines
A timber species of lowland and hill forest, the bark of which yields cinnamon.

Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919

**Cinnamomum micranthum**
Lauraceae LR/cd China (Fujian, Guangdong, Guangxi, Hunan, Jiangxi, Zhejiang), Taiwan, Viet Nam
Although relatively widespread in lowland rainforest, the species has experienced considerable habitat declines, largely because of conversion to agriculture. Remaining populations are believed to be well protected in nature reserves.

Assessor: World Conservation Monitoring Centre
Refs: 1818, 6469, 11847

**Cinnamomum osmophloeum**
Lauraceae VU A1acd, B1+2a Taiwan
An important source of medicine and spice. The species is widespread in lowland broadleaved forest.
Populations have come under heavy exploitation and have also declined in extent because of habitat loss.

**Assessor:** Pan, F.J.

**Refs:** 3295, 6469, 19050

**Cinnamomum parthenoxylon**

**Lauraceae**

Indonesia, Malaysia (Sabah), Philippines, Thailand?, Viet Nam

In Viet Nam, although the species occurs commonly in areas of evergreen rainforest in the north, exploitation of the roots for their commercial essence has caused severe population declines, resulting in the species being critically endangered at a national level (CR A1cd).

**Assessor:** Asian Regional Workshop

**Refs:** 848, 9328, 12937, 15357, 19060

**Cinnamomum parviflorum**

**Lauraceae**

Cuba, Dominican Republic, Haiti

A shrub or tree up to 15m tall, occurring in montane rainforest and cloud forest. It is uncommon in Cuba.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 19149

**Cinnamomum perrottetii**

**Lauraceae**

India (Kerala, Tamil Nadu)

A medium-sized tree of montane forest, occurring in two main locations, the Nilgiri Hills and Anaimalai range.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 8483, 16438, 19144

**Cinnamomum reticulatum**

**Lauraceae**

Taiwan

Confined to the Hengchun Peninsula in the southern tip of Taiwan, populations are small and isolated, in dry forest on rocky seashores and coastallocalities. Observations of poor regeneration and habitat clearance for housing developments have led to concerns for the species. A population is recorded in Kenting National Park.

**Assessor:** Lu, S.Y. & F.J. Pan

**Refs:** 6469, 19050, 19051

**Cinnamomum riparium**

**Lauraceae**

India (Karnataka, Kerala, Tamil Nadu)

Few collections of this riverine tree exist. It occurs in lowland to medium elevation forest along the coast and Western Ghats.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 6431, 8483, 19144

**Cinnamomum rivulorum**

**Lauraceae**

Sri Lanka

During the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, this species was found in only one forest locality in Badulla District.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 19112

**Cinnamomum walaiwarensis**

**Lauraceae**

India (Tamil Nadu)

A small tree known a single collection, occurring in a restricted area of submontane forest.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 19144

**Citharexylum querefolium**

**Verbenaceae**

Peru

A species confined to the Peruvian Andes, recorded from rocky areas of forest between 2500 and 4000m in the departments of Cajamarca, Cuzco, Lima and La Libertad. Extensive burning and clearing have caused declines and fragmentation of the habitat.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1984

**Citharexylum rimbachii**

**Verbenaceae**

Ecuador

This endemic tree of the Ecuadorian High Andes inhabits montane cloud forest at 2500m in Bolivar.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 19119, 19120

**Citharexylum suberosum**

**Verbenaceae**

Peru

A small tree apparently confined to a single area of disturbed forest between the altitudes of 2500 and 3000m in the department of Apurimac in the Peruvian Andes. Extensive burning and clearing have caused declines and fragmentation of the habitat.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1984

**Citharexylum ternatum**

**Verbenaceae**

Cuba

An endemic shrub or small tree locally confined to the mountainous area of Nagua in the west of the Sierra Maestra range in Granma Province.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 11403, 18485, 19149

**Citropsis gabunensis**

**Rutaceae**

Ghana

A tree confined to wet evergreen forest in an area which has experienced significant declines in this habitat because of logging, mining and the commercial planting of exotics.

**Assessor:** Hawthorne, W.

**Refs:** 6127, 12061, 15251

**Citrus tainwanica**

**Rutaceae**

Taiwan

Once widely scattered, the species has become scarce and confined to a few isolated populations in lowland forest in the region of Hsinchu and Taitung. The future prospects of its survival are poor as regeneration is severely hampered by the use of the tree as a rootstock in citrus plantations and by the extensive loss of habitat.

**Assessor:** Pan, F.J.

**Refs:** 3295, 19050
**Claoxylon ooumense**
Euphorbiaceae  
French Polynesia (Marquesas Is.)  
Endemic to Nuku Hiva.  
Assessor: Florence, J.  
Refs: 14513

**Claoxylon taiense**
Euphorbiaceae  
French Polynesia (Society Is.)  
Populations are recorded from Moorea, Raiatea, Tahaa and Tahiti.  
Assessor: Florence, J.  
Refs: 14513

**Clausiina calciphila**
Rutaceae  
Rutaceae  
Malaysia (Sarawak)  
Restricted to the rocky limestone slopes between 150 and 300 m, this small tree is known only from three localities; Bukit Pa’It and Bukit Bra’ang in Kuching District and Bukit Mentagai in Baram District.  
Assessor: World Conservation Monitoring Centre  
Refs: 19017

**Clavija jelkii**
Theophrastaceae  
VU B1+2c  
Peru  
A forest species, found between 2000 and 2500m only in the department of Cajamarca in the Peruvian Andes.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Clavija longifolia**
Theophrastaceae  
VU B1+2c  
Peru  
Endemic to Peru, the species is found in lowland rainforest in the departments of Huánuco, Loreto, Madre de Dios and San Martin.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Cleidiocarpum cavaleriei**
Theophrastaceae  
VU B1+2c  
Euphorbiaceae  
China (Guangxi, Guizhou, Yunnan), Myanmar, Viet Nam  
This multi-purpose tree occurs in small populations in broadleaved forest on limestone over a relatively wide range, covering parts of southern China, Son La, Lao Kai and Yen Bai in northern Vietnam and northern Myanmar. In China, particularly over the past 10 years, trees have been cut for timber at unsustainable levels. In Viet Nam the timber is said to be more rarely used because of its susceptibility to insect and termite attack. Seeds contain up to 30% edible oil. The genus contains just two species.  
Assessor: Sun, W.  
Refs: 1818, 11847, 19055

**Cleidiocarpum laurinum**
Theophrastaceae  
EN B1+2c, C2a  
Myanmar, Viet Nam  
There is some dispute over the wild origins of this species, but it is generally believed to be the more restricted in range of the two members of the genus. Wild populations are recorded in Son La in Viet Nam and in Myanmar in areas of evergreen broadleaved forest from low to medium elevation. Various parts of

the plant are harvested for use, including the timber. It is widely planted as a fruit tree.  
Assessor: World Conservation Monitoring Centre  
Refs: 848, 11530, 15357

**Cleidiocarpum lemurum**
Theophrastaceae  
VU B1+2c  
New Caledonia  
Once known from the Caves of Hienghène, the species has not been found since 1871. It is questionable whether it should now be considered extinct.  
Assessor: Jaffré, T. et al.  
Refs: 4492, 10351

**Cleidiocarpum lochmios**
Theophrastaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Cleidiocarpum marginatum**
Theophrastaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Cleidiocarpum veillonii**
Theophrastaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Cleidiocarpum bracteosus**
Theophrastaceae  
Euphorbiaceae  
VU D2  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 8464, 19073

**Cleidiocarpum collinus**
Theophrastaceae  
Euphorbiaceae  
VU A1d  
Sri Lanka  
The endemic status of this tree is uncertain. In Sri Lanka, this forest species is possibly extinct due to overexploitation. It was not found in the recent National Conservation Review forest survey indicating that the species is either extremely rare or extinct. The conservation category is inferred from the situation in Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 18796, 19112

**Cleidiocarpum evrardii**
Theophrastaceae  
Euphorbiaceae  
VU D2  
Democratic Republic of Congo  
The species is restricted to a single locality in the Malinga valley, where it occurs in dense swamp forest often associated with Gilbertiodendron dewevrei. The habitat is threatened by logging and agriculture.  
Assessor: Ndjele, M.B.  
Refs: 17185, 17951
**Cleistanthus ferrugineus**
Euphorbiaceae
VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

**Cleistanthus flavescens**
Euphorbiaceae
LR/nt
Malaysia (Peninsular Malaysia)
A rare species of lowland rainforest in Perak and Terengganu.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Cleistanthus glandulosus**
Euphorbiaceae
VU D2
Malaysia (Peninsular Malaysia)
A small tree of primary evergreen rainforest, known only from a single collection from Gunung Keledang in Perak.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Cleistanthus glaucus**
Euphorbiaceae
VU D2
Malaysia (Peninsular Malaysia)
Confined to Perak, the species is distributed in lowland forest, below 200m, mainly on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 19073

**Cleistanthus kingii**
Euphorbiaceae
LR/cd
Malaysia (Peninsular Malaysia)
A rare species of lowland forest and swamp forest, occurring on limestone below 150m in Perak and Johore.
Assessor: Kochummen, K.M.
Refs: 17140, 19073

**Cleistanthus lanuginosus**
Euphorbiaceae
LR/cd
Malaysia (Peninsular Malaysia)
Confined to Mount Ophir in Johore, the species is scattered in submontane forest at 500m. The area is conserved.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Cleistanthus major**
Euphorbiaceae
CR B1+2c
Malaysia (Peninsular Malaysia)
A small tree of primary evergreen rainforest, known only from a single collection from Kemaman in south Terengganu. Its continued existence is somewhat in doubt since the area has been under development of various kinds and much of the forest has been cleared.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Cleistanthus malabaricus**
Euphorbiaceae
VU B1+2c
India (Karnataka, Kerala)
Known from a few reports and even fewer herbarium specimens, the species occurs in low to medium altitude forest in scattered locations in the Western Ghats.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Cleistanthus membranaceus**
Euphorbiaceae
LR/nt
Malaysia (Peninsular Malaysia)
A lowland rainforest tree, occurring between 90 and 150m in Penang and Perak. The species has been collected few times.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Cleistanthus parvifolius**
Euphorbiaceae
VU D2
Malaysia (Peninsular Malaysia)
A small tree of limestone forest in Gopeng, Perak. It has been collected only once.
Assessor: Kochummen, K.M.
Refs: 19073

**Cleistanthus peteloii**
Euphorbiaceae
VU D2
Viet Nam
A scarce tree, which appears to be known only from Ha Binh (Muông Thôn, Luong Son: Lâm Son) in north Viet Nam.
Assessor: World Conservation Monitoring Centre
Refs: 848

**Cleistanthus robustus**
Euphorbiaceae
CR B1+2c
Sri Lanka
A tree restricted to lowland wet evergreen forests in south-west Sri Lanka. This species was not found during the recent National Conservation Review forest surveys, indicating that it is either extremely rare or possibly extinct. Previously a population was known from Kanneliya Forest Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 17195, 19112

**Cleistanthus travancorensis**
Euphorbiaceae
EN B1+2c
India (Kerala, Tamil Nadu)
Two collections of the species have been gathered from widely separated localities of submontane evergreen forest at the southern end of the Western Ghats.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Clermontia arborescens ssp. arborescens**
Campanulaceae
EN A1ce
USA (Hawaii)
One of two subspecies. An epiphytic or terrestrial tree or shrub restricted to southern West Maui, where it occurs in montane rainforest. It has been estimated that as much as 90% of the habitat has been logged and converted into pastureland. Remaining areas are affected by grazing feral pigs. The genus is endemic to the Hawaii Islands.
Assessor: World Conservation Monitoring Centre

**Clermontia drepanomorpha**
Campanulaceae
EN B1+2c, C2a, D1
USA (Hawaii)
A terrestrial or epiphytic tree which is known only from the summits of the Kohala Mountains on Hawaii, where it is found in low boggy forest within an area of 26km².
A survey in 1995 identified 200 individuals in five different populations. The area is state-owned and the only site to harbour this unique habitat. The major threats come from ditch management, invasive plants, feral pigs and rats. The species is protected by the US Endangered Species Act.

**Clermontia grandiflora**
Campanulaceae LR/nt
USA (Hawaii)
The species occurs in rainforest or the margins of bogs up to 1975m on Molokai, Lanai and Maui Islands. Two subspecies are sometimes recognised, of which the type subspecies is locally common but confined to West Maui.

**Clermontia hawaiiensis**
Campanulaceae VU A1ce
USA (Hawaii)
A terrestrial or epiphytic species confined to Hawaii Island, where it occurs in Puna and Kau Districts in rainforest from low to high altitudes. Much of the habitat has been logged and converted into pastureland. Remaining areas are strongly affected by grazing feral pigs.

**Clermontia lindseyana**
Campanulaceae EN B1+2c, C2a
USA (Hawaii)
An uncommon terrestrial or epiphytic species occurring in montane rainforest up to 2150m altitude. A single population remains on Maui in the southern slopes of Haleakala. About 14 populations are known from Hilo, Kau and South Kona Districts on Hawaii. The total population has been estimated to lie between 225 and 325 individuals. The major threats to the species are invading alien plants, grazing and damage caused by domesticated animals and the feral pig. The species is protected by the US Endangered Species Act.

**Clermontia oblongifolia**
Campanulaceae CR B1+2c, C2a, D1
USA (Hawaii)
This subspecies is known from a single population of about 20 individuals located in the south-eastern part of Kamakou Preserve, on Molokai, where it grows on forested slopes between 1100 and 1200m altitude. Feral pigs are an immediate threat to the population and rats may be preying on the fruit and other plant parts. The taxon is protected by the US Endangered Species Act.

**Clermontia oblongifolia**
Campanulaceae CR B1+2c, C2b, D1
USA (Hawaii)
This subspecies is restricted to one locality on West Maui, populations on Lanai and East Maui having become extinct in 1913 and 1927 respectively. On West Maui the taxon was first collected in the 1980s and is presently known from a single individual within a protected area of montane wet forest. There still exist areas of rainforest on East Maui where a population may yet be discovered. Attempts at propagation have so far failed. The taxon is protected by the US Endangered Species Act.

**Clermontia oblongifolia**
Campanulaceae VU A1ce
USA (Hawaii)
This subspecies is confined to lowland rainforest on Oahu Island.

**Clermontia peleana**
Campanulaceae CR C2a, D1
USA (Hawaii)
A shrub or tree which is epiphytic on tree ferns, *Metrosideros, Acacia* or *Cheirodendron* species. It occurs in rainforest on the slopes of Mauna Kea and Mauna Loa on Hawaii. A population on East Maui along with another population on the northern slope of Mauna Kea have been referred to as *C. s. sullifera* but both are now extinct. There are four remaining populations of the species, numbering no more than a few individuals. There is evidence of damage to the habitat caused by feral pigs, rats and the illegal cultivation of cannabis. The species is protected by the US Endangered Species Act.

**Clermontia persicifolia**
Campanulaceae LR/nt
USA (Hawaii)
This terrestrial or epiphytic species is found in lowland rainforest on Oahu. It is recorded from both the Koolau and Waianae Mountains, more commonly from the latter.

**Clermontia pyrularia**
Campanulaceae CR C2a, D1
USA (Hawaii)
A small tree restricted to Hawaii, where a single wild population of three plants remains. Two populations have been planted in exclosures at Hakalau, nearby. Invasive plants and the damage caused by feral pigs are thought to have contributed significantly to the species decline. It is protected by the US Endangered Species Act.

**Clermontia tuberculata**
Campanulaceae EN A1ce
USA (Hawaii)
Confining to East Maui, this terrestrial species occurs in montane rainforest, primarily along stream beds.
**Clerodendrum calicicolum**

Verbenaceae  
VU A1c, B1+2c  
Cuba  
A shrub or small tree up to 8m tall, endemic to the coastal dry evergreen forests of western Cuba. Habitat declines have been great in the past decades; overcutting and clearing for urbanisation continue to be threats.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 19149

**Clerodendrum denticulatum**

Verbenaceae  
VU B1+2c  
Cuba  
A small tree, of up to 10m in height, inhabiting semi-deciduous forest on eroded limestone in eastern Cuba. The habitat in this region has been heavily degraded in places.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 16327, 18485, 19149

**Clerodendrum galeatum**

Verbenaceae  
VU D2  
Yemen (Socotra)  
A small tree or shrub which is scattered in woodland areas throughout the island. Its timber is exploited at a local level. Populations are stable at present.  
**Assessor:** Miller, A.G.  
**Refs:** 2354, 19083

**Clerodendrum glabrum ssp. minutiflorum**

Verbenaceae  
VU D2  
Seychelles (Albabra)  
A small tree or shrub of inland scrub communities on the islands of Malabar, Polymnie, Picard, Grand Terre, Assumption, Cosmoledo and Astove. It provides an important food for tortoises. The Alabaran Islands are under protection within a Strict Nature Reserve. Some disturbance has occurred on Assumption because of strip-mining for phosphate or guano, and on Cosmoledo and Astove, where areas have been cleared for the establishment of coconut and *Casuarina* plantations.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19027, 19062

**Clerodendrum leucophloeum**

Verbenaceae  
VU D2  
Yemen (Socotra)  
A small tree or shrub which is scattered in woodland areas throughout the island. Its timber is exploited at a local level. Populations are stable at present.  
**Assessor:** Miller, A.G.  
**Refs:** 2354, 19083

**Clethra alexandri**

Clethraceae  
LR/mnt  
Jamaica  
This species appears to be common to abundant, especially above 1800m. The largest population occurs in forest on the Grand Ridge, also in forest margins and gaps. Hybridisation takes place between this species and *C. occidentalis*. The forest at lower altitudes has suffered more serious degradation because of logging and the ensuing soil erosion and invasion of aggressive exotic plants.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980, 12564

**Clethra coloradensis**

Clethraceae  
CR B1+2bc  
Panama  
The species is known from a few collections all taken from a small area of cloud forest around Cerro Colorado in Chiriquí. There is much activity in the area, particularly copper and gold mining.  
**Assessor:** Miré, M.  
**Refs:** 6067, 16772

**Clethra crispa**

Clethraceae  
VU B1+2c  
Ecuador  
An endemic of Ecuador, currently known to occur only in areas of montane and upper montane cloud forest in Azuay and Loja.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19119

**Clethra hendersonii**

Clethraceae  
LR/nd  
Malaysia (Peninsular Malaysia)  
An uncommon shrub to small tree which resides in the understorey or in gaps of montane rainforest, also occurring in secondary forests at high elevation. It is given a degree of protection within the permanent forest estate.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Clethra javanica**

Clethraceae  
VU A1c, D2  
Indonesia (Java)  
The species is known only from a forested area near the lake at Taman Hidup in Dataran Tinggi Yang or the Yang Plateau. The area is relatively isolated, although logging has occurred in the past and commercial plantations have been established. Proposals to give the area national park status have failed. A variety may possibly occur on Lombok.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1011, 9078

**Clethra parallelinervia**

Clethraceae  
VU B1+2c  
Ecuador  
An endemic of Ecuador, found only in the provinces of Loja and Azuay where it occurs in montane and upper montane cloud forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19119, 19120

**Clethra tutensis**

Clethraceae  
DD  
Panama  
The species is known only from the type specimen collected in 1975 from Cerro Tute in Verguas. It is not known whether the species still exists and the area is little explored.  
**Assessor:** Miré, M.  
**Refs:** 6067, 16772

**Cleyera bolleana**

Theaceae  
VU B1+2c  
Dominican Republic, Haiti  
A cloud forest species which has been collected from only six localities in Hispaniola. The two collections from Haiti from the Massif de la Selle date back over 50 years. There is considerable pressure exerted on these
small forests because of the demand for farming land and wood. It is unknown whether the populations remain intact.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 13574

**Cleyera cernua**  
**Theaceae**  
Mexico (Oaxaca)  
A montane forest species known only from the Oaxaca region of Mexico. Several localities are known but most are not definite and more fieldwork is necessary to confirm the distribution of this rare species.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 13574

**Cleyera japonica var. grandiflora**  
**Theaceae**  
India (Meghalaya)  
A taxon known only from a few localities in Meghalaya. How many of the localities harbour extant populations is not known. No record of the taxon has been made since 1935 despite explorations in the area. The forest in Meghalaya has been seriously fragmented and reduced to sacred groves in many places.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4799

**Cleyera vaccinioides**  
**Theaceae**  
Dominican Republic, Haiti  
A species known only from five localities within cloud and pine forests of Hispaniola. The two Haitian localities occur in the Massif de la Selle and Massif de la Hotte and date back the 1920s. Considerable pressure is exerted upon these small areas of forest because of the demand for farming land and wood. It is unknown whether these populations remain intact.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 197, 13574

**Clithanthus paniculatus**  
**Leguminosae**  
New Zealand (North Is.)  
Occurring in scattered populations from Northland to Hawkes Bay, the species occurs as a shrub or small tree in scrubby forest margins and flaxland. About 200 plants exist in total, most of these occurring within the boundaries of Urewera National Park. Browsing by goats, pigs, deer and possums and the illegal collecting of seedlings have caused more recent declines in numbers. A popular ornamental plant with large bright red flowers, it is possible that the Maori were partly responsible for previously known occurrences on offshore islands, the East Cape and other parts of the North Island.

**Assessor:** de Lange, P.J.  
**Refs:** 902, 4253, 15251, 17637, 19133, 19134

**Clidemia crosseopala var. adamsii**  
**Melastomataceae**  
Jamaica  
This variety occurs very locally in thickets on limestone, only in Trelawny at about 680m.

**Assessor:** Kelly, D.L.  
**Refs:** 401, 5653, 7980, 19085

**Clidemia arborea**  
**Rosaceae**  
South Africa (Northern Cape, Western Cape)  
A *fynbos* relic which occurs in *karroid* vegetation along the Great Escarpment from Beaufort West in the east to near Sutherland in the west and northwards to Calvinia. Information from local farmers indicated that it was once very common along the edge of the escarpment. However, being the only woody plant in the area, it was heavily used for firewood and reduced to five remnant subpopulations. Two of the extant subpopulations are healthy, with a range of size classes present; one is also contained within a national park and the other occurs in a local authority nature reserve. There is no evidence of any further declines in recent years.

**Assessor:** Hilton-Taylor, C. et al.  
**Refs:** 689, 19218

**Clinostigma haerestigma**  
**Palmae**  
Solomon Islands (South Solomon)  
A palm tree of lowland *Casuarina* forest on ultrabasic soils, restricted to south-east Santa Isabel.

**Assessor:** Dowl, J.L.  
**Refs:** 19118

**Clinostigma harlandii**  
**Palmae**  
Vanuatu  
Endemic to Vanuatu, this palm tree occurs in wet rainforest on ridge tops and the adjacent steep slopes. The population is extensive with 100,000s of mature trees. Regeneration is good.

**Assessor:** Dowl, J.L.  
**Refs:** 19118

**Clinostigma samoense**  
**Palmae**  
Western Samoa  
A palm confined to Upolu Island, Western Samoa. The major part of the broadleaved lowland forest habitat is now destroyed. Remaining populations appear to be healthy and stable, the species occasionally being quite common.

**Assessor:** Whistler, A. & D. Johnson  
**Refs:** 19118

**Clinostigma savoryana**  
**Palmae**  
Japan (Ogasawara-shoto)  
A rare palm tree of wet forest endemic to the Bonin Islands. Very little has been published on this species.

**Assessor:** Johnson, D.  
**Refs:** 19118

**Clitoria moyabambensis**  
**Leguminosae**  
Peru  
Known only from the type, the species occurs in lowland rainforest in San Martin Department.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984
Species Summaries

**Clitoria woytkowskii**
*Leguminosae*  
Peru  
Known only from the type collection, the species occurs in lowland rainforest in San Martin Department.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Clusia carinata**  
*Guttiferae*  
Peru  
A lowland rainforest species which is known only from the type collected in the department of Loreto.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Clusia clarendonensis**  
*Guttiferae*  
Jamaica  
An uncommon tree occurring in woodland on limestone in Clarendon, St James and Trelawny.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 401, 6057, 7980

**Clusia croattii**  
*Guttiferae*  
Colombia, Panama  
Occurring in semi-deciduous rainforest above 500m, the species is found throughout Panama from Darién, extending into Colombia, to the border with Costa Rica, possibly extending over that border as well. In places it is relatively common but never abundant. Some populations are protected in national parks, but elsewhere the species is under pressure from mining for copper and gold, as in Cerro Colorado, and from increasing settlement of the land in Cochlé. The only known Colombian population is restricted to a very small area.  
*Assessor:* Mitré, M.  
*Refs:* 7980, 15037, 16772

**Clusia cupulata**  
*Guttiferae*  
Panama  
Principally known from the centre-north of Panama, the species continues to be in found new sites, increasing its range so that it almost stretches from the border with Costa Rica to the border with Colombia. No record of the species has been made in either of the latter countries so far. It occurs almost exclusively in undisturbed rainforest up to 1200m. There are small populations in Volcán Barú and Chagres National Parks and Kunayala Indigenous Reserve. Outside these areas the habitat is frequently threatened by settlement, logging and extensive agriculture.  
*Assessor:* Mitré, M.  
*Refs:* 7272, 7980, 16772

**Clusia dukei**  
*Guttiferae*  
Panama  
Largely growing epiphytically, the species is scattered diffusely in areas of moist forest from low elevation to 1800m. It is recorded from localities throughout Panama. Some populations are protected in national parks, others are seriously exposed to increasing habitat clearance for settlement and agriculture.  
*Assessor:* Mitré, M.  
*Refs:* 7272, 7980, 16772

**Clusia havetioides var. havetioides**  
*Guttiferae*  
Jamaica  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 7980

**Clusia havetioides var. pauciflora**  
*Guttiferae*  
Jamaica  
This variety is known from only a single locality on a steep densely wooded hillside on Croft’s Mountain, Clarendon.  
*Assessor:* Kelly, D.L.  
*Refs:* 401, 7980, 19085

**Clusia havetioides var. stenocarpa**  
*Guttiferae*  
Jamaica  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 7980

**Clusia longipetiolata**  
*Guttiferae*  
Panama  
At present, the species is known only from the Caribbean coast in Bocas del Toro and Colón, where it is scattered in lowland semi-evergreen or evergreen forest. The area is not well explored but available information suggests the species is uncommon. A small population in Santa Rita, Colón, is in grave danger of being cut down.  
*Assessor:* Mitré, M.  
*Refs:* 7272, 7980, 16772

**Clusia osseocarpa**  
*Guttiferae*  
Colombia, Panama  
Occurring in rainforest from low elevation to 1500m, the species ranges from the Canal region in Panama to an area just over the border with Colombia in the Chocó. Population numbers are not large but several of the localities are within protected areas. Increasing agriculture, settlement and logging threaten areas of unprotected forest.  
*Assessor:* Mitré, M.  
*Refs:* 7272, 7980, 16772

**Clusia portlandiana**  
*Guttiferae*  
Panama  
An epiphytic tree or shrub confined to mossy forest on limestone in Portland between 450 and 750m.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 401, 5653, 7980

**Clusia pseudomangle**  
*Guttiferae*  
Peru  
A cloud forest species which is endemic to the Peruvian Andes and has been collected only once, from the department of San Martin.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984
**Clusia tarmensis**  
Guttiferae  
Peru  
Known only from the type, the species occurs in lowland rainforest in the department of Junín.  
*Assessor: World Conservation Monitoring Centre*  
*Refs: 1984*

**Cnidoscolus fragrans**  
Euphorbiaceae  
Cuba  
Apparently endemic to the site where the capital city of Cuba was built, this tree was described from the area of Regla at the eastern side of Habana Bay more than a century and a half ago. A wide area of several kilometres around the harbour has been cleared and urbanised. There is very little chance of rediscovering the species.  
*Assessor: Areces-Mallea, A.E.*  
*Refs: 11403, 18485, 19149*

**Cnidoscolus matosii**  
Euphorbiaceae  
Cuba  
This tree is locally restricted to coastal, dry, evergreen forests on limestone terraces in Maist, eastern Cuba.  
*Assessor: Areces-Mallea, A.E.*  
*Refs: 16327, 18485, 19149*

**Cnidoscolus rangel**  
Euphorbiaceae  
Cuba  
Confined to Pinar del Rio Province, this small tree occurs infrequently in semi-deciduous forest on shallow soils or on bare, deeply eroded limestone rocks.  
*Assessor: Areces-Mallea, A.E.*  
*Refs: 16327, 18485, 19149*

**Coccoloba cholutensis**  
Polygonaceae  
Honduras  
A scarce species of lowland dry forest, occurring on the Pacific coast where fires and encroaching agriculture are frequent threats.  
*Assessor: Nelson, C.*  
*Refs: 13995*

**Coccoloba coriacea**  
Polygonaceae  
Cuba  
Endemic to a relatively small area in the north of Pinar del Rio Province, this shrub or small tree is confined to sclerophyllous evergreen scrub and woodland on serpentine-derived soils in the Cajalbana range.  
*Assessor: Areces-Mallea, A.E.*  
*Refs: 19149*

**Coccoloba dariensis**  
Polygonaceae  
Colombia, Panama  
A relatively common species of lowland seasonal rainforest, in Panama occurring in Darién Province, Valle de Antón in Cocle, and the Canal area. Much of the range lies within protected areas, outside which occurrences are less common. In Colombia, there are populations in the Chocó and Valle de Cauca.  
*Assessor: Mitré, M.*  
*Refs: 16772*

**Coccoloba lindaviana**  
Polygonaceae  
CR C2a  
Honduras  
A tree restricted to the Atlantic drainage, occurring at low to middle elevations.  
*Assessor: Nelson, C.*  
*Refs: 13995*

**Coccoloba matudae**  
Polygonaceae  
VU A1c  
Mexico  
A rainforest species with a distribution confined to high precipitation forests in the Gulf region and from the Pacific slope.  
*Assessor: World Conservation Monitoring Centre*  
*Refs: 5993*

**Coccoloba plumieri**  
Polygonaceae  
LR/nt  
Jamaica  
A tree of moist savannas, thickets and woodlands on limestone in the central and western parishes. General habitat declines have been considerable.  
*Assessor: World Conservation Monitoring Centre*  
*Refs: 6057, 7980*

**Coccoloba proctorii**  
Polygonaceae  
EN B1+2c  
Jamaica  
A large tree with a local distribution on limestone hills in St Elizabeth and St James. Population numbers are very low. The habitat is severely degraded in places and under constant threat from cutting and encroaching agriculture.  
*Assessor: Kelly, D.L.*  
*Refs: 401, 5653, 7980, 19085*

**Coccoloba retirensis**  
Polygonaceae  
CR B1+2c  
Cuba  
A small tree described from a single locality in El Retiro, Santa Cruz, Pinar del Rio Province. The habitat in the area has been severely degraded.  
*Assessor: Areces-Mallea, A.E.*  
*Refs: 19149*

**Coccoloba rugosa**  
Polygonaceae  
EN C2a  
Puerto Rico, Virgin Islands (US) (ex)  
Originally described from a cultivated specimen, this beautiful tree occurs in the wild in semi-dry woodland on coastal hills in the north-east and east of Puerto Rico. The record from St Thomas in the US Virgin Islands dates from over 100 years ago and the habitat there has largely been destroyed. The main extant population consists of 121 plants in Palmas de Mar, Puerto Rico. There are thought to be a further three populations, making the population total 400-500 plants. Threats of quarrying and development, especially of houses, tourist facilities and roads, are apparent.  
*Assessor: World Conservation Monitoring Centre*  
*Refs: 7980, 17124*

**Coccoloba tilacea**  
Polygonaceae  
VU B1+2ac  
Argentina (Jujuy, Salta), Bolivia  
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species is confined to an unprotected
ecosystem which is being rapidly replaced by agricultural systems.

Assessor: Prado, D.
Refs: 19122

**Coccoloba troyana**
Polygonaceae
VU B1+2c
Jamaica

Populations occur in two main areas, Trelawny and St James, and Portland and St Thomas. They are confined to remaining areas of woodland on limestone and serpentine soils. Deforestation has occurred extensively in the latter two parishes.

Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 19116

**Cocconerion minus**
Euphorbiaceae
VU B1+2c
New Caledonia

Assessor: Jaffré, T. et al.
Refs: 10351

**Coccothrinax borhidiana**
Palmae
CR B1+2c
Cuba

Occurring on raised limestone beaches near the sea, this palm is restricted to Matanzas. The area of occupancy is less than 10km².

Assessor: Moya, C.
Refs: 19118

**Coccothrinax crinita ssp. brevicrinis**
Palmae
EN B1+2e, C2a
Cuba

A Cuban endemic found in lowland, seasonally flooded savanna up to 500m. Habitat destruction and local exploitation of the plant parts are causing population reductions. The species is traded locally as an ornamental.

Assessor: Moya, C.
Refs: 19118

**Coccothrinax crinita ssp. crinita**
Palmae
EN B1+2c, C2a
Cuba

A Cuban endemic of lowland, seasonally-flooded savanna up to 500m. Habitat destruction and local exploitation of the plant parts are causing population reductions. The species is traded locally as an ornamental.

Assessor: Moya, C.
Refs: 19118

**Coccothrinax ekmanii**
Palmae
DD
Dominican Republic, Haiti

A palm tree found in dry scrub forest on limestone on rocky hills or near the sea. Little is known about the species status in Dominican Republic but it is very likely to be threatened in Haiti.

Assessor: Johnson, D.
Refs: 19118

**Coccothrinax inaguensis**
Palmae
DD
Bahamas, Turks and Caicos Islands

This rare palm species occurs in scrub on sandy or limestone soils in coastal areas. Little information is available on its conservation status.

Assessor: Johnson, D.
Refs: 19118

**Coccothrinax pauciramosa**
Palmae
VU B1+2c
Cuba

Confined to Camagüey, Holguín and Oriente in Cuba, this small tree grows in open forest on limestone hills or on serpentine savanna between 200 and 250m. The area of occupancy is small and populations are declining.

Assessor: Moya, C.
Refs: 19118

**Cocchlopernum tetrarorum**
Cochlospermaceae
EN B1+2a
Argentina (Jujuy, Salta), Bolivia

Within the genus, the species appears to have evolved in isolation. It is endemic to the subandean piedmont forest in north-west Argentina and Bolivia and appears to be restricted to gypsum-based soils. The ecosystem remains entirely unprotected and threatened by agriculture, logging and pastoralism.

Assessor: Prado, D.
Refs: 1262, 5112, 7980, 11140, 19122

**Coffea costatifructa**
Rubiacae
VU D2
Tanzania

This species was first described in 1994. It is known from two localities: Mafia Island and the Selous Game Reserve, where it occurs in patches of forest, woody savanna or Brachystegia thicket.

Assessor: World Conservation Monitoring Centre
Refs: 17153

**Coffea fadenii**
Rubiacae
VU B1+2c, D2
Kenya

Endemic to the Taita Hills, the species is scattered to scarce in areas of moist montane forest. Populations are known from Mbololo, a protected reserve, and Ngangao. There is some habitat encroachment by local farmers and settlers.

Assessor: World Conservation Monitoring Centre
Refs: 6396, 17859

**Coffea lembinii**
Rubiacae
EX
Côte d'Ivoire

Known only from a single herbarium specimen, the species is believed to be extinct.

Assessor: Assi, A.
Refs: 2773, 12822

**Coffea mongensis**
Rubiacae
VU B1+2b
Tanzania

Known from the East Usambara, North Udzungwa and also probably the Nguru Mountains, this species is found in moist evergreen forest at altitudes of 1150 to 1400m.

Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814
Coffea mufindiensis ssp. mufindiensis
Rubiaceae  VU B1+2b
Tanzania
A Tanzania endemic, this subspecies is restricted to moist montane forests in the Kiborani and Udzungwa Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Coffea pocsii
Rubiaceae  VU B1+2c, D2
Tanzania
Described in 1994, this small tree is confined to dry evergreen forest, characterised by the frequency of Euphorbia and Encephalartos, in Kitulanghalo Forest Reserve in the Morogoro region.
Assessor: World Conservation Monitoring Centre
Refs: 17153

Coffea pseudozanguebariae
Rubiaceae  VU B1+2b
Kenya, Tanzania
A shrubby tree which is known from remnant dry forest patches occurring in the Taita Hills in Kenya, and further south in Tanzania and Zanzibar.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Coffea topoensis
Rubiaceae  VU A1c
Ghana, Togo
A small tree which is common but restricted to the southern dry forests of Ghana, from Tain II Forest Reserve to the Volta region and extending into Togo. Dry forests have suffered the most serious losses of all the forest types in this area. They continue to decline because of fire, felling and agricultural expansion.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Coffea zanguebariae
Rubiaceae  VU B1+2b
Mozambique, Tanzania
Ranging in a relatively unexplored area from southern Tanzania in the Kilwa District to northern Mozambique, this species is confined to patches of dry coastal forest. The species is possibly cultivated in Madagascar.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 8814

Cola attenis
Sterculiaceae  EN A1c, B1+2c
Côte d’Ivoire
At one time widespread, this species has become rare because of the extent of deforestation in the country. It occurs in remaining moist semi-deciduous forest, the large part of which now exists only in protected areas.
Assessor: Assi, A.
Refs: 2773, 12822

Cola boxiana
Sterculiaceae  EN B1+2c
Ghana
Endemic to Ghana, this tree is generally rare and confined to upland evergreen forest. It is most common in the Atewa range and occurs in neighbouring forest reserves. Farming, fire, forest management and large-scale mining continue to put pressure on the species habitat. Its status could prove to be more threatened after necessary survey work.
Assessor: Hawthorne, W.
Refs: 6127, 8369, 12061

Cola bracteata
Sterculiaceae  VU B1+2c
Uganda
An endemic to Uganda, occurring relatively commonly in Kalinzu and Malamagambo Forest Reserve but scarce in Iwara Forest Reserve and elsewhere.
Assessor: *MUIENR
Refs: 5654, 9605, 9837, 14667

Cola clavata
Sterculiaceae  DD Mozambique
Assessor: Bandeira, S.
Refs: 5117, 18965

Cola duparquetiana
Sterculiaceae  VU D2 Gabon
This species has been collected only from Lastoursville, where logging has been intensive and the forest is degraded. The species may be found to be more widespread in the country’s relatively unexplored forests, which, although extensive, are largely under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 14958, 15790

Cola gigas
Sterculiaceae  VU B1+2c
Nigeria
Only recorded in south-eastern Nigeria, the largest, if not only, population of this species occurs in the Oban Division of the Cross River National Park. The areas outside the park have been largely deforested and planted with commercial or subsistence crops.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 4977, 11504

Cola glabra
Sterculiaceae  VU B1+2c
Nigeria
A small tree confined to the few remaining forested areas in south-west Nigeria. Large-scale logging, encroaching agriculture and the planting of commercial crops have resulted in large declines in the habitat.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 11504

Cola hypochrysea
Sterculiaceae  VU A1c
Cameroon, Nigeria
A species with a scattered occurrence in lowland rainforest, especially in swampy areas or along river banks. Its range extends from south-eastern Nigeria, (although it does not appear to occur in Cross River National Park), to Cameroon, where it has been recorded from Japoma, Dibamba, Eseka, Kribi, Ebolowa and Campo. Unprotected areas have been extensively logged and cleared for agriculture.
Assessor: World Conservation Monitoring Centre
Refs: 11504, 12597
**Cola lesteusi**  
Sterculiaceae  
VU D2  
Gabon  
Apparently the species is known only from the vicinity of Lastoursville, where the habitat is largely disturbed. Further collecting is likely to uncover additional occurrences, but there is concern over the extent to which forest in Gabon is now under concession to logging companies.  
Assessor: World Conservation Monitoring Centre  
Refs: 14958, 15790

**Cola lizae**  
Sterculiaceae  
LR/nt  
Gabon  
A common species confined to Lopé Forest Reserve and a 50km radius around the northern boundary. Part of the range is under concession to logging companies and there is concern over future plans for intensive logging. The species is notable in being wholly dependent on the lowland gorilla for seed dispersal.  
Assessor: World Conservation Monitoring Centre  
Refs: 14958

**Cola laureougnonis**  
Sterculiaceae  
EN A1c, B1+2c  
Cameroon, Côte d’Ivoire  
The sites of moist semi-deciduous forest where this species was found in Côte d’Ivoire have been felled. The habitat in Cameroon has also declined because of logging operations.  
Assessor: Assi, A.  
Refs: 12822

**Cola mossambicensis**  
Sterculiaceae  
VU B1+2c  
Malawi, Mozambique, Zimbabwe?  
Occurring mainly in central Mozambique in areas of lowland forest, this species is severely threatened by the decline in quality and conversion of its habitat for agricultural purposes. Populations may also exist in southern Malawi.  
Assessor: Bandeira, S.  
Refs: 5117, 5654, 18965

**Cola nigerica**  
Sterculiaceae  
VU A1c  
Nigeria  
Records suggest the species is confined to the remaining areas of lowland rainforest in southern Nigeria. Although it is said to occur frequently in parts of Shasha and Obio Forest Reserves, most of the latter forest has been felled and replanted with exotic timber species. A protected population exists in the Oban Division of the Cross River National Park. Forests outside protected areas are almost completely cleared and taken over by commercial and subsistence crops.  
Assessor: World Conservation Monitoring Centre  
Refs: 2773, 4977, 11504

**Cola octoloboides**  
Sterculiaceae  
EN B1+2c  
Kenya  
A shrub or small tree, confined to a few forest patches or shady crevices, including localities in Cha Simba, Gongoni, Muhaka and Dzombo.  
Assessor: World Conservation Monitoring Centre  
Refs: 6396, 9198

**Cola philipi-jonesii**  
Sterculiaceae  
EN B1+2c  
Nigeria  
A shrubby species, which has to date been recorded in only a small area near Ikom which lies between the northern and southern division of the Cross River National Park. Unprotected forest has been almost completely felled up to the park boundaries.  
Assessor: World Conservation Monitoring Centre  
Refs: 2773, 11504

**Cola porphyrantha**  
Sterculiaceae  
EN B1+2c  
Kenya  
A tree of dense evergreen forest, collected only a few times from Pangani, Longo and Magangi forests.  
Assessor: World Conservation Monitoring Centre  
Refs: 6396, 9198

**Cola reticulata**  
Sterculiaceae  
VU A1c, B1+2c  
Côte d’Ivoire, Ghana, Guinea  
An uncommon small evergreen tree which is confined to areas of upland evergreen forest in Côte d’Ivoire, Ghana, and also on Mount Nzo in Guinea. These areas are under pressure from farming, fire, forest management activities and large-scale mining.  
Assessor: Hawthorne, W.  
Refs: 2773, 8369, 12061

**Cola scheffleri**  
Sterculiaceae  
VU B1+2b  
Tanzania  
A species of moist semi-deciduous submontane forests occurring only in the Nguru Mountains and in the south of the Udzungwa Mountains at Kihansi.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

**Cola semecarpophylla**  
Sterculiaceae  
LR/cd  
Cameroun, Nigeria  
A small tree of lowland rainforest and secondary forest. The range extends from south-east Nigeria, including the Oban Hills in Cross River National Park, to Cameroun, where it is known from several localities including Mount Cameroon, Korup National Park, Kribi, Kompina, Mamfe, Kumba and Campo. Unprotected forested areas have been heavily logged and cleared for agriculture.  
Assessor: World Conservation Monitoring Centre  
Refs: 11504, 12597, 19092

**Cola umbratilis**  
Sterculiaceae  
VU A1c, B1+2c  
Côte d’Ivoire, Ghana  
Known only from Ghana but expected in Côte d’Ivoire, this species: is confined to remaining patches of wet evergreen forest. Declines in this habitat type because of mining, logging and commercial forestry activities have been significant in the last few decades.  
Assessor: Hawthorne, W.  
Refs: 2773, 8369, 12061

**Cola usambarensis**  
Sterculiaceae  
DD  
Tanzania  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814
Coluabrina obtusifolia
Rhamnaceae
EN B1+2c, C2a
Jamaica
Confined to thickets and woodlands in limestone areas in the Cockpit Country, the species has experienced widespread clearance of its habitat.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 7980

Colubrina obscura
Rhamnaceae
VU B1+2c
Jamaica
Confined to thickets and woodlands in limestone areas in the Cockpit Country, the species has experienced widespread clearance of its habitat.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 7980

Colubrina obtusifolia
Rhamnaceae
EN B1+2c, C2a
USA (Hawaii)
One of the hardest native woods, the species was heavily harvested by ancient Hawaiians and is now only rarely found in dry to moist forest up to 920m altitude. There are 10 extant populations in the Waianae Mountains on Oahu, in the Kohala Mountains, Muana Loa and Hualalai on Hawaii and a recently discovered individual on Maui. It has been estimated that there are approximately 300 individuals. The spread of alien plants, damage caused by feral pigs and the black twig borer are among the major threats to remaining populations. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19039

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Assessor: World Conservation Monitoring Centre
Refs: 3372, 19039
60km of the coast. Plants have been recorded from Mkuz Game Reserve and the species may also occur within Ndumu and Kosi Bay conservation areas. Sand forest is under threat from cutting for firewood and timber. The area is also increasingly threatened by settlement and agricultural activities. There is some debate over the specific status of the taxon.

Refs: 689, 19218

**Combretum petrophilum**

**Combretaceae**

South Africa (Mpumalanga, Northern Province)

The species occurs on north-western or southern slopes in mixed savanna. Specimens are often found growing between rocks, in fissures or along ledges in hilly and mountainous terrain. Populations are recorded from a number of localities, some of which are protected areas. Outside protected areas, the species is showing some decline because of woodland-cutting activities.

Assessor: World Conservation Monitoring Centre
Refs: 5941

**Combretum rochetianum**

**Combretaceae**

Eritrea, Ethiopia, Sudan

Reported to be often common, this species is confined to *Combretum-Terminalia* woodland in a relatively small range covering west Eritrea, north-west Ethiopia and adjacent areas of Sudan. Agricultural expansion and human activities are causing declines in the extent of this habitat in the area.

Assessor: World Conservation Monitoring Centre
Refs: 6396, 9198

**Combretum tenuipetiolatum**

**Combretaceae**

Kenya, Tanzania

A small tree collected from Rabai and Mombasa over 70 years ago and also apparently from Potwe forest in adjacent Tanzania. The Rabai forest is sacred. The other occurrences, if they still exist, are far less secure.

Assessor: World Conservation Monitoring Centre
Refs: 6396, 9198

**Commidendrum robustum ssp. gummiferum**

**Compositae**

St Helena

Although it is doubtful whether any pure material of this subspecies still exists, its characters are frequently seen in hybrid populations at Peak Dale. The taxon was at one time distributed on the central ridge between 400 and 700m. There is also a tree of questionable identity found in Deep Valley. The genus consists of four species, all endemic to St Helena.

Assessor: Cronk, Q.C.B.
Refs: 9954, 11891, 19081

**Commidendrum robustum ssp. robustum**

**Compositae**

St Helena

Gumwood woodland covered over 60% of St Helena in the 16th century. Extensive cutting of trees for their fine timber in the following centuries led to their reduction to a few small stands. Only two viable populations now remain in Peak Dale and Deep Valley, accounting for less than 2500 trees. Recent evidence indicates that sheep grazing and competition with introduced plants may be a problem. Biological control appears to have helped get rid of infestations of the homopteran pest, *Orthies insigne*. The genus consists of four species, all endemic to St Helena.

Assessor: Cronk, Q.C.B.
Refs: 11891, 19071, 19081

**Commidendrum rotundifolium**

**Compositae**

St Helena

Formerly one of the common gumwoods occurring in dry areas. By the end of the 18th century stands were reduced to a few isolated localities and the species was considered extinct at the end of the 19th century. A tree was rediscovered on an inaccessible cliff at the southern edge of Horse Pasture in 1982 but by 1986 it had blown down in a gale. Some trees have been planted at Pounceys. The genus consists of four species, all endemic to St Helena.

Assessor: Cronk, Q.C.B.
Refs: 9954, 11891, 19081

**Commidendrum rugosum**

**Compositae**

St Helena

A low-domed shrub of the crown wastes. At one time it became entirely confined to cliff localities. Since the extirpation of goats, population numbers are believed to be expanding. The total population size exceeds 1000 individuals, but most subpopulations are very small and restricted geographically, making them vulnerable to stochastic events. The species is able to tolerate severe drought and saline conditions. There is evidence of hybridisation. The genus consists of four species, all endemic to St Helena.

Assessor: Cronk, Q.C.B.
Refs: 9954, 11891, 19081

**Commidendrum spuriun**

**Compositae**

St Helena

A small tree, known from just six individuals in the wild: one at Coles Rock, one old plant with three young ones at Mount Vesey and one fenced individual on a ridge between Cason's Gate and Oaklands. The species has been brought into cultivation. In the past, trees were recorded as growing on the tops of the highest mountains. The wood was used chiefly as a source of fuel. The genus consists of four species, all endemic to St Helena.

Assessor: Cronk, Q.C.B.
Refs: 9954, 11891, 19081

**Commiphora alata**

**Burseraceae**

Somalia

This species is confined to bushland on sand over limestone in a small area in the south-west of Somalia. The habitat is under pressure from degradation and overcutting for charcoal production.

Assessor: Thuin, M.
Refs: 7620, 18665

**Commiphora alboflora**

**Burseraceae**

Ethiopia, Somalia

Occurring in *Acacia-Commiphora* bushland on limestone substrate, this small tree is known from scattered localities from northern and south-central Somalia to Sidamo, southern Ethiopia. Habitat is being
Commiphora hodai
Burseraceae
LR/nt
Ethiopia, Somalia
Although the species has a very restricted range in the Ogaden in Ethiopia, it is widespread in Somalia. Its resin is used locally for myth.
Assessor: Thulin, M.
Refs: 1330, 7620

Commiphora mafaidohoa
Burseraceae
LR/nt
Madagascar
A species confined to the south-west in areas of *tropophilic forest up to 600m. A useful timber tree and the focus of silvicultural studies.
Assessor: World Conservation Monitoring Centre
Refs: 6161

Commiphora monoica
Burseraceae
VU D2
Ethiopia
A species known from only five collections made in the vicinity of the Sōf Omar caves in dense woodland on rocky limestone slopes. It is the only wholly monoeocious species in the genus.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 13058, 18523

Commiphora obovata
Burseraceae
LR/nt
Ethiopia, Kenya, Somalia
A small tree with a fragmented range restricted to parts of the Ogaden in Ethiopia, central and northern Somalia and eastern Kenya. The habitat has been degraded in places because of farming activities and overcutting for charcoal production.
Assessor: Thulin, M.
Refs: 1330, 7620, 10961, 18665

Commiphora ornifolia
Burseraceae
VU D2
Yemen (Socotra)
Although widespread on coastal plains and foothills, the populations are generally scattered and small. Leaves are used as fodder for livestock. Increasing goat numbers could cause the species to become more seriously threatened.
Assessor: Miller, A.G.
Refs: 2354, 19083

Commiphora planifrons
Burseraceae
VU D2
Yemen (Socotra)
Collected only a few times, the species has a very scattered distribution in moist woodland on limestone and granite hills. There are no immediate threats.
Assessor: Miller, A.G.
Refs: 2354, 19083

Commiphora pseudopaulii
Burseraceae
LR/nt
Kenya, Somalia
A spreading tree known from central and southern Somalia and from central Kenya in open bushland, often on alluvium soils. Overcutting and grazing of this habitat are threats.
Assessor: Thulin, M.
Refs: 6396, 7620, 13058, 18665
**Commiphora socotrana**
**Burseraceae**
Yemen (Socotra)  
VU D2  
A species of dry shrubland on the low-lying foothills and plains. The gum is tapped for use as incense. At present the rates of exploitation are sustainable, since it is restricted to the local level, but increased demand could potentially put the species at risk.  
Assessor: Miller, A.G.  
Refs: 2354, 19803

**Commiphora sphaerophylla**  
**Burseraceae**  
Ethiopia, Somalia  
LR/nt  
Fairly widespread in Somalia extending into Harerige in Ethiopia, this tree occurs in wooded grassland and bushland overlying limestone. There is some suggestion that the species could be a form of the variable C. erythraeo.  
Assessor: Thulin, M.  
Refs: 1330, 7620

**Commiphora sulcata**  
**Burseraceae**  
Somalia  
LR/nt  
Only a few localities where this species occurs are known. All are confined to northern and central Somalia in bushland which is vulnerable to degradation.  
Assessor: Thulin, M.  
Refs: 7620, 18665

**Commiphora truncata**  
**Burseraceae**  
Ethiopia, Somalia  
LR/nt  
A species of Acacia–Commiphora bushland overlying limestone. It is fairly widespread in Somalia but known only from Harerige in Ethiopia. In places there is a threat to the habitat from overcutting for charcoal production and from expanding agricultural activities. The resin is used locally as myrrh.  
Assessor: Thulin, M.  
Refs: 1330, 7620

**Commiphora unioloba**  
**Burseraceae**  
Ethiopia, Kenya, Somalia  
LR/nt  
Relatively wide-ranging, the species is found in central eastern parts of Kenya, central and southern Somalia and Sidamo in Ethiopia. In some areas the habitat is vulnerable to degradation from agricultural expansion and charcoal production.  
Assessor: Thulin, M.  
Refs: 1330, 7620, 18665

**Commiphora wightii**  
**Burseraceae**  
India (Gujarat, Rajasthan), Pakistan  
DD  
A small tree occurring in dry zones from the Deccan and west India to the north-west and Karachi, Sind and Balochistan in Pakistan. The gum is of importance in international trade and it appears to be being extracted at unsustainable rates, causing declines, particularly in the southern populations. In the northern parts of its distribution it remains relatively common. The government of India has banned the export of the species.  
Assessor: CAMP Workshops on Medicinal Plants in India  
Refs: 561, 7147

**Commocladia cordata**  
**Anacardiaceae**  
Jamaica  
VU B1+2c  
Known only in Trelawny, the species is confined to areas of woodland on limestone.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 7980

**Commocladia parvifolia**  
**Anacardiaceae**  
Jamaica  
CR B1+2c  
Endemic to Dolphin Head, the species is confined to an area of woodland.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653

**Commocladia velutina**  
**Anacardiaceae**  
Jamaica  
LR/nt  
This species is found along the south coast on dry limestone. It is locally common in places.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

**Conceveiba macrostachys**  
**Euphorbiaceae**  
Gabon  
LR/nt  
A common tree confined to the central part of Lopé Forest Reserve, extending a few kilometres to the south. Part of the range is under concession to logging companies and there is concern over future plans for intensive logging.  
Assessor: World Conservation Monitoring Centre  
Refs: 14958

**Condaminea glabrata**  
**Rubiaceae**  
Peru  
VU D2  
A species which has been collected only once from the department of Huánuco. There is some doubt as to the taxonomic status of this Andean genus of just three species.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Condaminea macrocarpa**  
**Rubiaceae**  
Peru  
VU D2  
A species which is recorded only from the type in Huánuco Department. There is some doubt as to the taxonomic status of this Andean genus of just three species.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Condaminea microcarpa**  
**Rubiaceae**  
Peru  
VU D2  
A species which is recorded only from the type in Huánuco Department. There is some doubt as to the taxonomic status of this Andean genus of just three species.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984
Conospermus agamae
Connaraceae
Malaysia (Sabah)
To date this small tree is known only from Sandakan and Mostyn of Sabah, where it is restricted to primary mixed dipterocarp forest
Assessor: World Conservation Monitoring Centre
Refs: 19017

Conospermus brachybotrysus
Connaraceae
Guatemala, Honduras
A scarce species of the Atlantic wet lowlands of Guatemala and Honduras. Continuing conversion of the habitat for agriculture has caused population reductions.
Assessor: Nelson, C.
Refs: 7980, 13995

Conospermus popeonis
Connaraceae
Honduras
Restricted to the Atlantic wet lowlands of Honduras, the species occurs in low numbers in Lancelotilla Biological Reserve.
Assessor: Nelson, C.
Refs: 7980, 13995, 14911

Conospermus williamsii var. williamsii
Connaraceae
Colombia, Panama
The main population of this variety is concentrated in the province of Darién in Panama, with additional occurrences in the Canal area in Panama, and also just over the border into Colombia, in the Serrania del Darién in the Chocó, and Urabá. Occurring in lowland, sometimes inundated, forest up to 300m, the species is scarce throughout much of its range and only in Darién National Park is there a well-protected population.
Assessor: Mitré, M.
Refs: 7980, 16772

Conospermus lancefolius
Combretaceae
Soomalia, Yemen
A small tree from a genus of just two species. The natural distribution is thought to be restricted to populations in the region of Woqooyi Galbeed, Togdheer, Bar and Nugaal in Somaliland and in Haddamaut in South Yemen. It occurs in cultivation elsewhere in East and North Africa and Arabia. Wild populations are confined to localities along water courses in the semi-desert coastal zone. The wood of the damas tree provides excellent timber and charcoal.
Assessor: World Conservation Monitoring Centre
Refs: 9059, 19083, 19108

Conospermus chiriquensis
Melastomataceae
Panama
For a short period, this cloud forest species was known only from the mountains of Chiriquí. Populations have now been found in Bocas del Toro and the high mountains in the Canal region. There are occurrences in Volcán Barú and La Amistad National Parks, one within 3km of the border with Costa Rica.
Assessor: Mitré, M.
Refs: 7272, 7980, 14873, 16772

Conostegia extinctoria
Melastomataceae
Colombia
An endemic to Tolima. Assessor: Calderon, E.
Refs: 19069

Conostegia grisebachii
Melastomataceae
Jamaica
The species is apparently known only from specimens which originated from John Crow Mountains in St Thomas. This area has since been almost comprehensively deforested and no living populations are known. There is some question as to the taxonomy of the species as it closely resembles C. balbisiana.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Conostegia subproica
Melastomataceae
Jamaica
An uncommon species, confined to moist thickets on limestone in Portland.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Conostegia superba
Melastomataceae
Panama
A small tree of moist woodland areas below 750m, found only in St Mary, Portland and St Thomas. The habitat, especially in the latter parish, has been extensively destroyed and degraded.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 19116

Copaifera epunctata
Leguminosae
Suriname
A rare endemic of rainforest on iron-capped hills in Brownsberg.
Assessor: World Conservation Monitoring Centre
Refs: 6493, 19196

Copaifera panamensis
Leguminosae
Panama
Endemic to Panama, the species ranges from Cocle towards the east, to Darién and San Blas. It occurs in low numbers in lowland semi-deciduous rainforest, sometimes inundated forest. Only in the Canal area does the species occur a little more frequently. Seedlings are notably scarce, indicating that regeneration may be poor. The wood and resin are of commercial value but are less commonly traded because the species has become rare.
Assessor: Mitré, M.
Refs: 3156, 7272, 7980, 16772

Copaifera salikounda
Leguminosae
VU A1d
Côte d’Ivoire, Ghana, Guinea, Liberia, Sierra Leone
An Upper Guinea endemic, most abundant in moist evergreen forests. It can occur commonly and regeneration appears to be good. Exploitation of the timber, as well as habitat loss, throughout its range are causing population declines.
Assessor: African Regional Workshop
Refs: 2362, 2773, 6128
Copernicia brittonorum
Palmae
Cuba
Las Villas and Pinar del Rio are the only known localities of this palm tree. It occurs in lowland woodlands and in open wetlands. Local overexploitation of the timber and leaf fibre is causing a decline in population number and few individuals remain in the wild.
Assessor: Moya, C.
Refs: 19118

Copernicia ekmanii
Palmae
Haiti
Restricted to north-west Haiti, this palm tree occurs in lowland scrub on rocky shores near the sea. In 1996, a field survey found about 1200 individuals in four populations, ranging from a single relict tree to healthy populations numbering around 500. The leaves are used locally for thatching and the trunks are used for construction; this exploitation is the major threat to this species.
Assessor: Johnson, D.
Refs: 19118

Copernicia gigas
Palmae
Cuba
A palm tree confined to seasonally flooded woodland and savanna in eastern Cuba. It is suffering from excessive local exploitation of the trunk wood and leaves.
Assessor: Moya, C.
Refs: 19118

Coprosma cookei
Rubiaceae
French Polynesia (Tubuai Is.)
An endemic to Rapa.
Assessor: Florence, J.
Refs: 14513

Coprosma esulcata
Rubiaceae
French Polynesia (Marquesas Is.)
Populations are recorded on Nuku Hiva and Ua Pou.
Assessor: Florence, J.
Refs: 14513

Coprosma oliveri
Rubiaceae
Chile (Juan Fernández Is)
A characteristic species of lower montane forest, a good example of which is found at Quebrada Villagran. Preliminary data indicate the species is confined to less than 100km². More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 7980, 14140

Coprosma rapensis var. benefica
Rubiaceae
CR D1
Pitcairn Islands
A small dioecious tree, endemic to Pitcairn. Only 10 individuals of flowering size were seen in 1997, and these are mostly well scattered in the eastern half of the island in degraded areas of forest. Evidence of natural regeneration is limited to a single sapling.
Assessor: Waldren, S. & N. Kingston
Refs: 19154

Coprosma taitensis var. glabrata
Rubiaceae
DD
French Polynesia (Society Is.)
A shrub or small tree which is known only from the island of Raiatea in the Society Group.
Assessor: Florence, J.
Refs: 14513

Coprosma taitensis var. oliveri
Rubiaceae
DD
French Polynesia (Society Is.)
The rarer of two varieties of the species occurring on Tahiti. This taxon is also recorded from Moorea.
Assessor: Florence, J.
Refs: 14513

Coprosma taitensis var. raiateensis
Rubiaceae
DD
French Polynesia (Society Is.)
As with var. glabrata, the taxon is confined to the island of Raiatea.
Assessor: Florence, J.
Refs: 14513

Coprosma wallii
Rubiaceae
VU B1+2c, D2
New Zealand (North Is., South Is.)
A small tree with divergating branches, found in lowland kahikatea/matai forest, frosty flats and clearings. In the North Island only three localities are known and occurrences have been recorded from Nelson, Westland and Canterbury in the South Island. There is evidence suggesting the species to be a poor competitor, suffering from the lack of periodic disturbance and sites available for recolonisation.
Assessor: de Lange, P.J.
Refs: 9800, 19133, 19134

Cordeauxia edulis
Leguminosae
VU A2ed
Ethiopia, Somalia
An important shrub or small tree species confined to semi-desert bushland from eastern Ogaden to central Somalia. The seeds are highly nourishing and are exploited to such levels that regeneration may be hampered. The tree also provides valuable dry-season
browse as well as fuel and dye. The potential of the plant as a food crop is being studied. The genus is monotypic.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 18665

**Cordia anisophylla**
Boraginaceae
VU A2cd
Panama
Ranging from the centre of Panama to the border with Colombia, the species occurs in lowland evergreen forest. It is found in areas which are experiencing increasing urbanisation. Only the populations within Chagres National Park and Kunayala Indigenous Reserve are given some form of protection.
Assessor: Mitré, M.
Refs: 14407, 16772, 18039

**Cordia cicatricosa**
Boraginaceae
VU D2
Peru
This lowland rainforest species is known only from its type, which was collected from the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Cordia clarendonensis**
Boraginaceae
VU B1+2c
Jamaica
A Cockpit Country endemic which occurs rarely in open woodland on arid limestone between 400 and 760m, only in Clarendon and Trelawny Parishes.
Assessor: Kelly, D.L.
Refs: 5653, 19085

**Cordia correia**
Boraginaceae
EN A2c, E
Panama
Described in 1988, this species is known only from a few collections taken from areas of evergreen rainforest between 800 and 1000m in central Panama. There is a population within Chagres National Park, in Cerro Jefe. Other locations in Cerro Tute and in the Valle de Antón, which harbours the largest population, are strongly affected by urban development and tourism.
Assessor: Mitré, M.
Refs: 4072, 16772, 18039

**Cordia croatii**
Boraginaceae
VU A2c
Costa Rica, Panama
A species first described in 1988 and known only from a few scattered localities in Veraguas and Cočé in Panama and from larger populations in Costa Rica, principally located in San Ramón Forest Reserve. It is restricted to cloud forest between 800 and 1200m.
Assessor: Mitré, M.
Refs: 4072, 16772, 18039

**Cordia elliptica**
Boraginaceae
LR/nt
Jamaica
An uncommon species occurring in secondary rainforest on limestone hills in central and eastern parishes.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

**Cordia harrisi**
Boraginaceae
VU B1+2c
Jamaica
A Cockpit Country endemic with a disjunct population at the summit of Dolphin Head. Populations occur in areas of woodland on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Cordia lesieae**
Boraginaceae
CR B1+3bc
Panama
The area from which this relatively newly described species has been collected is geographically and altitudinally very restricted. The entire population is contained within Chagres National Park and is somewhat threatened by encroaching settlement and tourist activities.
Assessor: Mitré, M.
Refs: 4072, 16772, 18039

**Cordia mandimbana**
Boraginaceae
VU D2
Mozambique
Known only from the type specimen, the species was collected in 1941 from open woodland in the Ngami valley.
Assessor: World Conservation Monitoring Centre
Refs: 5117, 18965

**Cordia mukueni**
Boraginaceae
VU D2
Democratic Republic of Congo
A species found only in rocky areas of savanna on Mont Mukuen. The area is vulnerable to fire and overcutting.
Assessor: Ndjele, M.B.
Refs: 17185, 17951

**Cordia obovata**
Boraginaceae
LR/nt
Oman, Somalia, Yemen (Socotra)
A species known from north-eastern Somalia and also Socotra and Oman. Its habitat type is vulnerable to overcutting for wood especially for charcoal production.
Assessor: Thulin, M.
Refs: 8697, 18665

**Cordia platythyrsa**
Boraginaceae
VU A1d
Cameroon, Côte d'Ivoire, Ghana, Liberia, Nigeria, Sierra Leone
A timber species occurring in closed forest and secondary formations. It regenerates well in disturbed forest; e.g. along logging roads. Exploitation is moderate and the current threatened status of the species should be kept under review.
Assessor: African Regional Workshop
Refs: 2362, 2773, 6128, 6718

**Cordia protracta**
Boraginaceae
EN B1+2bde
Costa Rica, Panama
Current information indicates that populations of this shrubby species are very scarce, occurring in lowland evergreen forest in Kunayala Indigenous Reserve and the Sierra del Darién in Panama, and in the Chocó in Colombia.
Assessor: Mitré, M.
Refs: 7980, 15037, 16772
**Cordia ramirezii**
Boraginaceae  
Colombia  
An endemic to Nariño.  
Assessor: Calderon, E.  
Refs: 19069

**Cordia sebestena var. caymanensis**
Boraginaceae  
Cayman Islands  
Occurring in dry habitats on all three islands, this variety is widespread and well represented in protected areas. There is potential for hybridisation to occur with the type variety, which is being brought onto the islands for landscaping. Import restrictions and growing interest in the propagation of native trees may help to avoid the problem. Habitat destruction is also extensive, but trees are often retained for landscaping.  
Assessor: World Conservation Monitoring Centre  
Refs: 17038, 19137

**Cordia stuhlmannii**
Boraginaceae  
Mozambique  
Two collections of this species were made from northern parts of Mozambique 30 years ago, one from the Reserva Florestal de Matheves. The species occurs in thicket on sandy soils and termite hills.  
Assessor: World Conservation Monitoring Centre  
Refs: 5117, 18965

**Cordia suckertii**
Boraginaceae  
Ethiopia, Somalia  
Scattered in central Somalia and adjacent parts of Ethiopia, the species is not widely spread. It is exploited locally for the seeds, which are a good source of fat and protein.  
Assessor: Thulin, M.  
Refs: 1330, 18665

**Cordia tacarcunensis**
Boraginaceae  
Panama  
The species has been collected only once, from an area of lowland rainforest near the Colombian border in Darién National Park. It is possible the population extends into Colombia but no record of the species has been made since 1975. The locality has been opened up for agriculture somewhat.  
Assessor: Mitré, M.  
Refs: 4072, 16772, 18039

**Cordia troyana**
Boraginaceae  
Jamaica  
A Cockpit Country endemic recorded from Peckham and Douglas Castle Woods and other areas of woodland on limestone. There is evidence of cutting and agricultural encroachment at both these sites.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 7980

**Cordia urticacea**
Boraginaceae  
Honduras, Mexico (Guerrero)  
Assessor: Nelson, C.  
Refs: 3952, 3977, 13995, 18039

**Cordia valencuelana**
Boraginaceae  
Cuba  
An uncommon shrub or small tree confined to Rangel, a small area in eastern Pinar del Río Province. The species has been overcut for its valuable timber.  
Assessor: Areces-Mallea, A.E.  
Refs: 16327, 18485, 19149

**Cordia wagnerorum**
Boraginaceae  
Puerto Rico  
A straggling tree or woody vine of moist forest, known from no recent sightings but recorded in 1991 from the type locality on the El Toro Trail.  
Assessor: World Conservation Monitoring Centre  
Refs: 3786, 5988, 7980, 17124

**Cordyla haraka**
Leguminosae  
Madagascar  
An emergent tree confined to low-altitude evergreen humid forest in north-east Madagascar. The forest is being degraded by exploitation and agriculture. Its estimated range covers 20 000 km² (*AOO*) and includes some protected areas.  
Assessor: Du Puy, D. & H. Labat  
Refs: 12353

**Cordyla madagascariensis**
Leguminosae  
Madagascar  
A deciduous tree, widespread in western and northern Madagascar. Its distribution is estimated to be 200,000 km² (*EOO*) but is confined to highly fragmented areas of native vegetation. Several protected areas fall within its distribution.  
Assessor: Du Puy, D. & H. Labat  
Refs: 6161

**Cordyla richardi**
Leguminosae  
Sudan, Uganda  
A savanna species known only from northern Uganda and neighbouring Sudan.  
Assessor: *MUIENR  
Refs: 9605, 9837, 10961, 16021

**Cordyla somalensis**
Leguminosae  
Somalia  
One of the subspecies, *ssp. littoralis*, is confined to the coastal dunes in southern Somalia and would be categorised as vulnerable (VU D2). However, the differences between it and the type subspecies are not thought to be significant. The species occurs more widely from southern Somalia up to the eastern Ogaden. It is not common and its habitat is vulnerable to degradation.  
Assessor: Thulin, M.  
Refs: 1330, 7550, 18665

**Cornus disciflora**
Cornaceae  
Costa Rica, Guatemala, Honduras, Mexico (Chiapas, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca, Sonora, Tamaulipas, Veracruz), Panama  
A cloud forest species with a wide range, extending from northern Mexico through Central America. It is
mainly found in the upper ranges of cloud forest, penetrating into pine-oak forest, between 1900 and 2250m. The timber is exploited and the habitat has declined significantly. 

Assessor: Ramírez-Martial, N. & M. González-Espinosa
Refs: 19203, 19206

**Cornus monbégii**

**Cornaceae**

VU B1+2c

China (Yunnan)

A species of mixed montane forest or cloud forest, occurring between 2800 and 3200m. Populations are known from Weixi, Lijiang and Degin in north-west Yunnan. Rapid declines in numbers have been recorded, largely because of extensive habitat loss and degradation in the last few years. No protection or conservation measures appear to be in place. The species is in cultivation as an ornamental plant.

Assessor: Sun, W.
Refs: 19055

**Cornutia obovata**

**Verbenaceae**

CR D1

Puerto Rico

A small tree of dry serpentine or moist limestone locations. A total population of eight individuals is thought to be divided between three or four sites: Río Abajo, Arincedo Observatory, Barrenquitas and possibly in the state forest at Susua.

Assessor: World Conservation Monitoring Centre
Refs: 6107, 7980, 17124

**Cornutia thyrsoida**

**Verbenaceae**

LR/nt

Jamaica

Occurring in woodland margins on limestone hills, the species is uncommon and exposed to frequent habitat degradation.

Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

**Corydia macrocarpa**

**Escalloniaceae**

LR/nt

New Zealand (Chatham Is.)

This small tree actually occurs quite commonly on the Chatham Islands, to which it is confined. Populations are, however, under great pressure from the continuous damage caused by browsing possums.

Assessor: de Lange, P.J.
Refs: 902, 5563, 19133, 19134

**Corylopsis pauciflora**

**Hamamelidaceae**

DD

Japan, Taiwan

In Taiwan populations are few and restricted to isolated localities in broadleaved submontane forest in Chingshaishan and Bashienshan. They are unprotected and regenerating poorly. Information is needed on the population in Japan.

Assessor: World Conservation Monitoring Centre
Refs: 6469, 19050, 19053

**Corylus chinensis**

**Corylaceae**

EN A1cd

China (Henan, Hubei, Hunan, Shaanxi, Sichuan, Yunnan)

A relatively widely occurring component of middle elevation broadleaved forest. Trees are fast-growing and provide various commercially useful products, most importantly a good-quality timber. Declines in the number of mature individuals have been reported, caused largely by overexploitation. Habitat loss and poor regeneration, apparently caused by the decimation of seed crops by birds, are also thought to have contributed to the present status of the species.

Assessor: Sun, W.
Refs: 1818, 11847, 19055

**Corypha macropoda**

**Palmaceae**

DD

India (Andaman and Nicobar Is. - Andaman Is.)

A palm tree known only from the middle and south Andaman Islands. Its present status is unknown.

Assessor: Johnson, D.
Refs: 19118

**Corypha microclada**

**Palmaceae**

VU A1c, D2

Philippines

The species distribution is not confirmed. It appears to be confined to lowland rainforest in Biliran Island.

Assessor: Madulid, D.
Refs: 19118

**Corypha taliera**

**Palmaceae**

EW

India

This monocarpic palm tree is not known in the wild. Specimens are growing in the Indian Botanic Garden and the Fairchild Tropical Garden.

Assessor: Johnson, D.
Refs: 19118

**Corypha umbraculifera**

**Palmaceae**

DD

India (Karnataka, Kerala)

A monocarpic palm of moist forest, restricted to Karnataka and the Malabar coast of Kerala. It is difficult to distinguish between wild and semi-wild populations.

Assessor: Johnson, D.
Refs: 19118

**Corythophora labrulata**

**Lycethidaceae**

VU D2

Suriname

A relatively small tree of non-flooded rainforest, rverine or swamp forest, known from about 15 collections. The genus is made up of four species.

Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980, 9263, 19196

**Cossinia trifoliata**

**Sapindaceae**

VU B1+2c

New Caledonia

Assessor: Jaffré, T. et al.
Refs: 10351

**Coloneaster granatensis**

**Rosaceae**

LR/cd

Spain

Endemic to the Andalusian sierras, this shrubby species occurs on calcareous and ultrabasic rocks. Most of the population is contained within protected sites. It is a useful coloniser and stabiliser of eroding slopes.

Assessor: Vivero, J.L. et al.
Refs: 7222, 7741
**Cotylelobium burckii**
Dipterocarpaceae  
**EN A1cd+2cd**  
Brunei, Malaysia (Sarawak)  
A tree that is locally common on giant podzols and poor sandy soils, often near the coast and in lowland heath forest. The wood is used for boat making. Some populations occur within reserves.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

**Cotylelobium lanceolatum**
Dipterocarpaceae  
**VU A1cd, B1+2c**  
Brunei, Indonesia (Peninsular Malaysia, Sabah, Sarawak), Singapore, Thailand  
This species is restricted to a declining habitat on sandy low hills. It is widespread but local, and recorded within some reserves.  
Assessor: Ashton, P.  
Refs: 5550, 7673, 9169, 9199, 13857, 18327

**Cotylelobium lewisianum**
Dipterocarpaceae  
**CR A1cd, B1+2c**  
Sri Lanka  
A tree restricted to rocky ridges of highland evergreen forest. Its wood is collected locally. This species was not found during the extensive National Conservation Review forest surveys.  
Assessor: Ashton, P.  
Refs: 15431, 13857, 19112

**Cotylelobium melanoxylon**
Dipterocarpaceae  
**EN A1cd+2cd**  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore  
Some populations of the species are known to occur in forest reserves.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

**Cotylelobium scabriusculum**
Dipterocarpaceae  
**CR A1cd, B1+2c**  
Sri Lanka  
A tree restricted to lowland wet evergreen forest, a habitat type that is found only in the south-western corner of the island. This species was not found in the extensive forest surveys conducted for the National Conservation Review.  
Assessor: Ashton, P.  
Refs: 15431, 17195, 13857, 19112

**Coupeia joaquinae**
Chrysobalanaceae  
**CR D1**  
Brazil (Amapá)  
The species was described in 1991 from collections originating from Jari. So far only four individuals are known.  
Assessor: Pires O’Brien, J.  
Refs: 19095

**Coupeia schottii**
Chrysobalanaceae  
**VU A1c+2c**  
Brazil (Bahia, Espírito Santo, Rio de Janeiro)  
Little of the *restinga* vegetation, to which the species is confined, remains. The expansion of the tourist industry and holiday homes, as well as exploitation for fuelwood, threatens the species survival. It is included in the official list of threatened Brazilian plants compiled by *IBAMA*.  
Assessor: Varty, N.  
Refs: 5901, 7980, 8815, 15539, 16123

**Coupeia scottmori**
Chrysobalanaceae  
**CR B1+2bd**  
Panama  
A scarce species which is confined to a small area of cloud forest between 800 and 1000m in the region of Cerro Jefe, in the province of Panamá. The whole species’ range is within the boundaries of Chagres National Park. Before the area was granted this status, a large part of the original forest was destroyed for housing and industrial developments. A single collection from Valle del Cauca in Colombia could possibly be included under this species.  
Assessor: Mitr, M.  
Refs: 5970, 7501, 7980, 16772

**Couratari asterotricha**
Lecythidaceae  
**CR B1+2d**  
Brazil (Espírito Santo)  
A species known only from the type locality in Linhares Forest Reserve.  
Assessor: Pires O’Brien, J.  
Refs: 3791, 5942, 7980, 9632

**Couratari atrovinosa**
Lecythidaceae  
**EN B1+2d**  
Brazil (Amazonas)  
Confined to non-flooded forests in the vicinity of Manaus, the species is threatened by fires and urban expansion. An occurrence is recorded from INPA Experimental Reserve.  
Assessor: Pires O’Brien, J.  
Refs: 3791, 7980, 9632

**Couratari calycina**
Lecythidaceae  
**VU D2**  
Guyana  
This rainforest tree has been collected only once, along the Bartica–Potaro road in 1933.  
Assessor: World Conservation Monitoring Centre  
Refs: 3791, 7980

**Couratari guianensis**
Lecythidaceae  
**VU A2bcde**  
Brazil (Acre, Amazonas, Pará, Rondônia), Colombia, Costa Rica, French Guiana, Guyana, Panama, Peru, Suriname, Venezuela  
A widespread timber species which has suffered serious population declines because of overexploitation and habitat loss, most particularly in Central America and Brazil.  
Assessor: Pires O’Brien, J.  
Refs: 4616, 4870, 5134, 5942, 9632, 10686, 12109, 14717, 17854
Couratari longipedicellata
Lecythidaceae
Brazil (Amazonas)
This species is known only from areas of non-flooded forest in the vicinity of Manaus. Fires, felling and cutting the buttresses are the most major threats.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

Couratari prancei
Lecythidaceae
Brazil (Acre), Peru
A rarely collected species of non-flooded forest, occurring in Acre and eastern Peru. The area is threatened by increasing land settlement.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

Couratari pyramidata
Lecythidaceae
Brazil (Rio de Janeiro)
At one time the species may have represented a commonly occurring tree. It is now confined to forested areas around Rio de Janeiro.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

Couratari sandwithii
Lecythidaceae
Suriname, Venezuela
A poorly known species, collected only twice from areas of lowland non-flooded rainforest in the Venezuelan Guyana and Suriname.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 6493, 7980

Couratari scottmorrii
Lecythidaceae
Costa Rica, Panama
A large buttressed tree of evergreen lowland rainforest, known from about four collections taken from a locality in the Osa Peninsula in Costa Rica and from single localities in San Blas and Darién in Panama.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 4616, 7980, 14717

Couratari taumari
Lecythidaceae
Brazil (Amazonas, Pará)
An infrequent species known from a few widely geographically separated collections from non-flooded forest.
Assessor: Pires O'Brien, J.
Refs: 3791, 5942, 7980, 9632

Couroupita nicaraguensis
Lecythidaceae
Colombia, Costa Rica, Ecuador, El Salvador, Nicaragua, Panama
Although widely occurring from El Salvador to Ecuador, the species is scattered sparsely in lowland semi-deciduous rainforest, sometimes in swampy areas. It is noted as common in Nicaragua and in Darién National Park in Panama. The habitat, especially where unprotected, is under pressure from increasing settlement, logging and agriculture.
Assessor: Mitré, M.
Refs: 1984, 7980, 16772

Coursetia brachyrachis
Leguminosae
Argentine (Jujuy, Salta), Bolivia
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122

Coursetia hypoleuca
Leguminosae
Argentine (Jujuy, Salta, Tucumán), Bolivia
A tree or shrub, endemic to the subandean piedmont forest of north-west Argentina and Bolivia. The ecosystem is unprotected and, at least in Argentina, the habitat is constantly declining because of encroaching agriculture and other human activities. The species acts as a pioneer and is reported to be regenerating sufficiently. There is considerable interest in it as a source for compounds which attack the AIDS virus.
Assessor: Prado, D.
Refs: 1262, 13295

Coussapoa curranii
Cecropiaceae
Brazil
A scarce species of Atlantic forest in the north-east and south-east of Brazil.
Assessor: Carauta, J.P.
Refs: 7980, 10481, 15717, 19101

Coussapoa floccosa
Cecropiaceae
Brazil (Minas Gerais)
Assessor: Pereira, J.P. et al.
Refs: 7980, 10481, 15717

Coussarea tolimensis
Cecropiaceae
Colombia
An endemic to Tolima.
Assessor: Calderon, E.
Refs: 7980, 19069

Coussarea klugii
Rubiacae
Peru
Occurring in Amazon forest, the only record of the species is its type collection taken from the department of Loreto. There is uncertainty over the taxonomy. It may be treated as a variety of C. longiflora or a synonym of C. benensis.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Coussarea mexicana
Rubiacae
Mexico (Chiapas, Oaxaca, Veracruz)
This canopy tree is restricted to the remaining rainforest in the Gulf region, from southern Veracruz to the adjacent states further south.
Assessor: World Conservation Monitoring Centre
Refs: 5993

Crabia atlantica
Leguminosae
Cameroon, Côte d'Ivoire, Ghana, Nigeria
The distribution of this species is irregular from Côte
d’Ivoire to Cameroon. Although generally uncommon, it can occur in some abundance at certain sites, e.g. along river banks. In Ghana it is best known from the Shi Hills. In Cameroon it is known only from an area along the banks of Sanaga River. Its forest habitat, particularly dry forest in Ghana, has experienced serious reductions in extent, mainly because of agricultural expansion, settlement and fires.

**Assessor:** Hawthorne, W.
**Refs:** 2773, 8369, 12061, 12597

**Crabia brevicaudata ssp. brevicaudata**
Leguminosae

Tanzania
Relatively widespread in Kenya extending into north-east Tanzania, this subspecies occurs in evergreen coastal forest and rocky woodland or bushland along rivers.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 3356, 6396, 10961

**Crabia brevicaudata ssp. burtii**
Leguminosae
Kenya
Most specimens of the species in Kenya are ssp. *brevicaudata*. This subspecies occurs only in coastal forest patches near Kilwewi and on Emali Hill.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 6396, 10961

**Crabia brevicaudata ssp. schlubnii**
Leguminosae
Mozambique, Tanzania
This subspecies occurs in dry evergreen forest at elevations between 1100 and 1800m in east Tanzania and the Gorongosa Mountains in Mozambique.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 5204

** Craibiodendron scleranthum**
Ericaceae
Viet Nam
Endemic to central Viet Nam, this large tree is scattered sparsely or found in dominant stands in dense evergreen broadleaved and mixed forest in Gia Lai, Kon Turn, Phu Yen and Khanh Hoa Provinces. The wood is used in construction work and furniture-making.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 848, 15357, 19060

**Craigia kwangsiensis**
Tiliaceae
China (Guangxi)
This species has been found at only a single locality in Langping, growing in forest on limestone hills at 1400m. An extensive survey in 1982 failed to relocate the species. There are only two species in this somewhat taxonomically unresolved genus.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1818, 11725, 11847

**Craigia yunnanensis**
Tiliaceae
China (Guangxi, Guizhou, Yunnan), Viet Nam
Small populations are scattered in Ruili, Malipo, Xichou and Lushui in Yunnan, in western Guangxi and Dushan County in southern Guizhou, and in north Viet Nam. The species habitat is monsoon forest between 500 and 1000m. It has been extensively cleared and degraded throughout the range. Only two species have been described in this somewhat taxonomically unresolved genus.

**Assessor:** Sun, W.
**Refs:** 1818, 11847, 19055

**Crateranthus talboti**
Leguminosae
Cameroon, Nigeria
An unusual small tree, which occurs in swamp forests in an area extending from south-east Nigeria into Cameroon. The largest, if not the only, remaining populations occur in the Oban Division of the Cross River National Park in Nigeria and the contiguous Korup National Park in Cameroon. Forests outside protected areas have largely been logged and cleared for commercial crops and subsistence farming. This is the only member of the genus.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2773, 4977, 11504

**Craterispermum longipedunculatum**
Rubiacae
Tanzania
Endemic to southern parts of the Nguru Mountains and northern parts of the Udzungwa Mountains, this species is confined to moist evergreen montane forest within a very narrow altitudinal band.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 5204

**Craterispermum microdon**
Rubiacae
Seychelles
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 16212, 17229

**Craterispermum montanum**
Rubiacae
São Tomé & Príncipe (Príncipe, São Tomé)
A small tree, which was relatively well collected on expeditions at the turn of the century and before. In the present day it appears to be localised to a number of primary forest sites at high altitudes (>1000m). The bark is an important ingredient in a fortifying drink for swordfish hunters and also in an aphrodisiac drink. There is evidence that some trees are dying from overcollection of the bark.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2724, 10080, 19042, 19111

**Craylia bahiensis**
Leguminosae
Brazil (Bahia)
Known from six sites, this newly described species is confined to a small area of semi-deciduous forest in central-southern Bahia. It can occur as a climbing shrub or a treelet.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 16095

Species Summaries
Cremastosperma longicuspis
Annonaceae
Peru
A genus endemic to the Andes. This species is known only from the type, collected in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Cremastosperma megalophyllum
Annonaceae
Peru
A genus endemic to the Andes. This species is known only from the type, which was collected in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Cremastosperma panamense
Annonaceae
Panama
Although reported from Panama, there is no information in the literature or in herbaria in Panama to indicate where the species is located.
Assessor: Mitré, M.
Refs: 6247, 16772

Cremastosperma peruvianum
Annonaceae
Peru
A genus endemic to the Andes. This species is known only from the type, which was collected in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Critoniopsis sevillana
Compositae
Ecuador
A tree species which is endemic to the High Andes of Ecuador. It is apparently restricted to montane forest in a narrow altitudinal range.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Critoniopsis sodiroi
Compositae
Ecuador
A tree or shrub which is endemic to the montane forest zone of the Ecuadorian High Andes.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Crossopetalum parviflorum
Celastraceae
LR/nt
Costa Rica, Guatemala, Mexico, Nicaragua, Panama
A widely distributed species in Costa Rica, Nicaragua and Guatemala, also reported from Mexico, and in small populations in the provinces of Bocas del Toro, Panamá and the Canal zone in Panama. Scattered in lowland semi-deciduous forest, the species is found in areas which are experiencing high rates of settlement and human population growth.
Assessor: Mitré, M.
Refs: 15037, 16772

Crotalaria exallata
Leguminosae
LR/nt
Ethiopia
From the Kefa, Shewa, Bale and Sidamo regions this small tree occurs in the margins of upland forest or bamboo thicket above 3000m. It is not known elsewhere.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 11191, 18523

Croton alienus
Euphorbiaceae
EN B1+2c
Kenya
Endemic to central Kenya, this shrub or small tree is restricted to humid areas of upland evergreen or secondary forest. Loss of habitat to create land for agriculture and land settlement is the greatest threat to the species. There are protected populations in some reserves, such as Mount Kenya and Kakamega forest, although some of these areas are being actively logged. The Plant Conservation Programme in Kenya has raised seedlings.
Assessor: World Conservation Monitoring Centre
Refs: 6396, 9198, 17859

Croton aubrevillei
Euphorbiaceae
VU A1c, B1+2c
Côte d'Ivoire, Ghana
A rare species of wet evergreen forests. Reductions in this habitat, caused by mining and forestry activities over the last few decades, have been significant.
Assessor: Hawthorne, W.
Refs: 4108, 8369, 11530, 12061

Croton cordataus
Euphorbiaceae
New Caledonia
Assessor: Iaffré, T. et al.
Refs: 10351

Croton dictyophlebodes
Euphorbiaceae
VU B1+2b
Tanzania
Restricted to the West Usambara Mountains, this species occurs within dry montane forest. It has a close affinity with C. sylvaticus.
Assessor: Lovett, J. & G.P. Clarke
Refs: 2074, 3356, 11631

Croton jatrophoides
Euphorbiaceae
VU B1+2b
Tanzania
A dry coastal forest species from eastern Tanzania, also said to occur in south-east Kenya.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Croton kelantanicus
Euphorbiaceae
VU D2
Malaysia (Peninsular Malaysia)
A small tree of primary evergreen rainforest, collected only a single time from Kelantan.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Croton laurinus
Euphorbiaceae
LR/nt
Jamaica
Populations are confined to areas of woodland on craggy limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980
Croton lawianus  
Euphorbiaceae  
CR B1+2c  
India (Karnataka)  
A small tree of stunted montane forest, collected only once in the Bababudan range.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

Croton longigedicellatus ssp. austrotanzanicos  
Euphorbiaceae  
VU B1+2b  
Tanzania  
A Tanzanian endemic which occurs in deciduous coastal thicket and open woodland. It is known from two sites: Nakilala in Kilwa District and Lake Lutamba. Areas around the latter were extensively cleared 50 years ago for the cultivation of commercial crops, leaving only a small area of forest contained within Litipo Forest Reserve.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

Croton lucidus  
Euphorbiaceae  
VU D2  
Malaysia (Peninsular Malaysia)  
A small tree of primary evergreen rainforest, known only from a single collection, gathered from Gunung Pulai in Johore.  
Assessor: Kochummen, K.M.  
Refs: 8464, 19073

Croton macrocarpus  
Euphorbiaceae  
CR B1+2c  
Malaysia (Peninsular Malaysia)  
Recorded by a single collection, the species was known from an area of peat swamp forest at Telok in Selangor which has since been developed for agriculture.  
Assessor: World Conservation Monitoring Centre  
Refs: 17140, 19073

Croton megalocaproids  
Euphorbiaceae  
LR/nt  
Kenya, Mozambique, Somalia, Tanzania  
At the north of the species range two populations occur in rocky places of semi-evergreen woodland and scrub in southern Somalia extending into Kenya near Kiunga. Further south new locations have been found in remaining patches of forest in Lindi and coastal Tanzania, possibly extending into northern Mozambique.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 5654, 6396, 8697, 9198, 12067, 18665

Croton phuqocensis  
Euphorbiaceae  
VU D2  
Viet Nam  
This species appears to be endemic to Viet Nam, where it is known from only a single locality in Kien Giang Province.  
Assessor: World Conservation Monitoring Centre  
Refs: 848

Croton sarcocarpus  
Euphorbiaceae  
VU D2  
Yemen (Socotra)  
The species is scattered, although occasionally common in areas of moist submontane woodland. There are no immediate threats.  
Assessor: Miller, A.G.  
Refs: 2354, 19083

Croton socotranus  
Euphorbiaceae  
LR/nt  
Yemen (Socotra)  
This is one of the commonest trees on Socotra. It dominates all types of vegetation over much of the coastal plains and foothills. Trees are cut for constructing roofs. Current rates of exploitation are sustainable but increasing development of the island may place the species under greater risk.  
Assessor: Miller, A.G.  
Refs: 2354, 19083

Croton stellarter  
Euphorbiaceae  
VU B1+2c, D2  
São Tomé & Príncipe (Príncipe, São Tomé)  
An upland tree with a relatively wide altitudinal range, principally occurring in secondary forest. Populations are recorded from Oquê Pipi on Príncipe and Lagoa Amelia, Morro Miguel Angelo and Esperanca on São Tomé. Although trees have been seen to set fruit, no regeneration is evident. The wood is valued as a timber. Areas on both islands remain to be inventoried and it is hoped there are regenerating populations in existence.  
Assessor: World Conservation Monitoring Centre  
Refs: 2724, 10080, 19042, 19111

Croton sulcifructus  
Euphorbiaceae  
VU D2  
Yemen (Socotra)  
The species is scattered, although occasionally common in areas of moist submontane woodland. There are no immediate threats.  
Assessor: Miller, A.G.  
Refs: 2354, 19083

Croton talaeporos  
Euphorbiaceae  
LR/nt  
Kenya, Somalia  
A species confined to bushland or woodland on the coast of Kenya and southern Somalia. It occurs in abundance near Kiunga.  
Assessor: Thulin, M.  
Refs: 6396, 8697, 10961, 18665

Croton touranensis  
Euphorbiaceae  
VU D2  
Viet Nam  
This species appears to be endemic to Viet Nam, where it is known from only a single locality in Da Nang.  
Assessor: World Conservation Monitoring Centre  
Refs: 848, 11530

Croton vaughanii  
Euphorbiaceae  
CR A1c, B1+2e, C2ab, D1  
Mauritius  
Only five individuals remain.  
Assessor: Strahm, W.  
Refs: 9120, 16426, 19208

Crotononogyn manitana  
Euphorbiaceae  
LR/nt  
Cameroon, Equatorial Guinea (Bioko), Gabon, Ghana, Nigeria  
An understory shrubby tree restricted to but locally abundant in wet evergreen forest. The species is relatively wide-ranging from Ghana to Gabon. Mining, logging and other forestry activities, particularly in
Ghana, Nigeria and Cameroon, have caused the general decline and degradation of these forests.

Assessor: World Conservation Monitoring Centre
Refs: 450, 2773, 12061, 12597, 15251, 19043

**Crudia balachandra**
Leguminosae VU D2
India (Andaman and Nicobar Is. - Nicobar Is.)
This is the only species of the genus in India. It is rare and endemic to Great Nicobar Island where it is found on forested slopes on the north to south road near South Bay. There is evidence of insect damage on the flowers.
Assessor: World Conservation Monitoring Centre
Refs: 2609

**Crudia brevipes**
Leguminosae VU D2
Malaysia (Peninsular Malaysia)
A tree of lowland rainforest, confined to Tasek Glugor, Wellesley Province, Penang. Only one collection of the species has been made. The area is under increasing settlement.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Crudia glauca**
Leguminosae DD
Malaysia (Peninsular Malaysia)
This rare tree occurs in open forest on limestone hills, confined to Gopeng in the state of Perak. The area is experiencing mining activities and increasing settlement.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Crudia lanceolata**
Leguminosae VU B1+2c
Malaysia (Peninsular Malaysia), Thailand
This tree is found in both Peninsular Malaysia and Peninsular Thailand, inhabiting primary hill rainforest.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Crudia penduliflora**
Leguminosae VU D2
Malaysia (Peninsular Malaysia)
This lowland rainforest species is confined to Mount Ophir in Johore. Only one collection has been made. The area is experiencing some logging and increasing settlement.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Crudia scortechinii**
Leguminosae VU B1+2c
Malaysia (Peninsular Malaysia)
An endemic tree of Peninsular Malaysia known only from lowland and hill rainforest in the state of Perak.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Crudia splendens**
Leguminosae VU D2
Indonesia (Kalimantan)
This species is only known from the type collection.
Assessor: World Conservation Monitoring Centre
Refs: 1766

**Crudia zeylanica**
Leguminosae EX
Sri Lanka
A large tree of the wet lowlands endemic to Sri Lanka. The species has been considered on the verge of extinction for over a decade, and as it was not found in the recent National Conservation Review forest survey it is likely to be extinct. A single tree was supposed to exist in the Peradeniya Botanical Garden. However, it has not been refound in the garden despite an intensive search.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 12129, 18796

**Cryosophila bartlettii**
Palmae EN A1c, B1+2c, C2a
Panama
Occurring in lowland areas, the species is known only from a few small scattered populations in the vicinity of Lago Alajuela. Much of the original habitat was flooded by the construction of this artificial lake. Logging and increasing agriculture and settlements are the principal threats to remaining populations. One small population is protected within Chagres National Park. The fibre is locally traded.
Assessor: Evans, R.
Refs: 19118

**Cryosophila cockii**
Palmae CR A1c, B1+2a, C2a
Costa Rica
The most morphologically distinct species in the genus. Individuals or small groups are scattered in Atlantic lowland rainforest near Limon. The present adult population is estimated to number less than 100 individuals. The range of the species is presumed to have been larger in the past. Habitat conversion to agriculture has caused major population declines. Logging, increasing settlements and decline in dispersal/pollination agent populations have also contributed to losses. The palm heart is eaten locally for medicinal purposes. A few plants are protected in Tort Guero National Park.
Assessor: Evans, R.
Refs: 19118

**Cryosophila grayumii**
Palmae CR A1c
Costa Rica
A single-stemmed palm of lowland rainforest, occurring on limestone on the Pacific slope. Populations are small, widely scattered and threatened by increasing agriculture and settlement and logging. There is a protected population in Carava Biological Reserve.
Assessor: Evans, R.
Refs: 19118

**Cryosophila guagara**
Palmce LR/nt
Costa Rica, Panama
A palm tree of lowland rainforest, a habitat which has greatly declined through conversion to agriculture. Large populations still exist in protected areas in Costa Rica, including Corcorado National Park, Carava Biological Reserve and Golfito Wildlife Reserve. The heart of the palm is eaten locally for medicinal purposes.
Assessor: Evans, R.
Refs: 19118
**Cryosophila kalbreyeri**  
Palmae, Panama  
A single-stemmed palm of lowland to submontane rainforest, ranging from eastern Panama to western Madalena, Colombia. The Colombian populations have been divided into two subspecies, both of which are considered endangered by the Instituto de Investigacion de Recursos Biologicos Alexander von Humboldt. Much of the original habitat has been converted for agriculture and the species has become rare or absent in places. In remote, undisturbed areas the species remains relatively common.  
**Assessor:** Evans, R.  
**Refs:** 19069, 19118

**Cryosophila nana**  
Palmae  
LR/nt  
Mexico (Chiapas, Colima, Guerrero, Jalisco, Michoacan, Nayarit, Sinaloa)  
Occurring on the Pacific coast, the species is found in areas of dry deciduous forest, often pine-oak woodland, up to 1700m. Much of the original dry forest along the coast is cleared or greatly altered as a result of logging and conversion to agriculture and settlements. Populations have become scarce or have completely disappeared at lower elevations. In relatively undisturbed areas in upper altitudinal limits, the species can be seen.  
**Assessor:** Evans, R.  
**Refs:** 19118

**Cryosophila williamsii**  
Palmae  
LR/nt  
Honduras  
The species is confined to two widely-separated populations on the west side of Lago Yojoa, occurring in lowland rainforest on steep slopes. The population at Lago Yojoa is known to be reproducing and is given some protection within a forest reserve. Increasing agriculture, settlement and logging have caused population declines in the past. The leaves are used locally for thatching and the palm heart is eaten for medicinal purposes. The flowers are unique in the genus in their ascending rather than arching position.  
**Assessor:** Evans, R.  
**Refs:** 7645, 7724, 19118

**Cryptocarya anamalayana**  
Lauraceae  
EN B1+2c  
India (Kerala, Tamil Nadu)  
A poorly known species of submontane forest, collected three or four times from three widely separated localities.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Cryptocarya beddomei**  
Lauraceae  
VU B1+2c  
India (Karnataka, Kerala, Tamil Nadu)  
Rarely collected, the species occurs in widely scattered localities of submontane forest along the Western Ghats, from Kodachadri to the Agastyamalai Hills.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Cryptocarya bitriplinervia**  
Lauraceae  
EN B1+2c  
New Caledonia  
A single locality is known in the Kalouâholo valley where the species occurs in lowland forest on ultramafic soils.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 12630

**Cryptocarya elliptifolia**  
Lauraceae  
CR C2a, D1  
Philippines, Taiwan  
In Taiwan, the population is confined to areas of lowland broadleaved forest on Lanyu Island. The number of mature individuals is very small (<250). Poor regeneration and housing developments cause the most serious concern for remaining populations. Information is needed on the populations in the Philippines.  
**Assessor:** Lu, S.Y. & F.J. Pan  
**Refs:** 6469, 7933, 19050, 19051

**Cryptocarya ferrarsii**  
Lauraceae  
CR B1+2c  
India (Andaman and Nicobar Is. - Andaman Is.)  
A small forest tree, known only from the type collection on Middle Andaman Island. The forests here have declined significantly through large-scale logging. Intact forest remains in Jarwa Reserve, which is unexplored and may harbour further populations of the species.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4799, 7147

**Cryptocarya mannii**  
Lauraceae  
LR/nt  
USA (Hawaii)  
A rarely collected species known only from Kauai and Oahu, where it occurs in various forest types.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372

**Cryptocarya membranacea**  
Lauraceae  
EN B1+2c  
Sri Lanka  
A rare species confined to lowland wet evergreen forest in south-west Sri Lanka. During the extensive National Conservation Review forest surveys, this species turned up in only four forest localities.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8203, 17195, 19112

**Cryptocarya palawanensis**  
Lauraceae  
EN B1+2c  
Philippines  
This Palawan endemic occurs in forest next to mangrove stands at sea level. Mangrove areas continue to be depleted by local people collecting firewood and construction timber, despite their forest reserve status. The main island is declared a biosphere reserve.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4986, 18088

**Cryptocarya stockii**  
Lauraceae  
VU B1+2c  
India (Karnataka, Kerala, Tamil Nadu)  
A medium-sized tree of submontane forest. Little is known about its habitat. It has been collected just four times from four widely separated locations, from
Cryptocarya wightiana
Lauraceae
VU A1c
Sri Lanka
A common tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

Cryptosepalum diphyllum
Leguminosae
EN B1+2ac
Nigeria
Records of this forest species are known only from south-east Nigeria. It is not known from the Oban Division of the Cross River National Park. Forest outside protected areas is almost completely cleared and planted with commercial or subsistence crops.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 7550, 11504

Cryptosepalum tetraphyllum
Leguminosae
VU A1c, B1+2c
Côte d'Ivoire, Ghana, Guinea, Liberia, Sierra Leone
A rare tree which occurs in wet evergreen forests and along riversides in more deciduous forests. It ranges from Guinea to Sierra Leone. A general decline in this habitat type has been caused by mining, logging and the establishment of commercial plantations.
Assessor: Hawthorne, W.
Refs: 7550, 8369, 12061

Cullenia celeyrana
Bombacaceae
VU A1c
Sri Lanka
A species occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Cullenia rosaryana
Bombacaceae
LR/cd
Sri Lanka
A subcanopy tree, restricted to the wet lowlands of Sri Lanka. It is commonly found in the Sinharaja Bissphere Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 18515

Cuminia eriantha
Labiateae
CR B1+2c
Chile (Juan Fernández Is)
An arboreal species of Labiateae, confined to remaining upper montane forest. Preliminary data indicate the species is confined to less than 100 km² and declining in numbers through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants. The genus contains two species, endemic to Juan Fernandez.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651

Cuminia fernandezia
Labiateae
CR B1+2c
Chile (Juan Fernández Is)
An arboreal species of Labiateae, confined to remaining upper montane forest. Preliminary data indicate the species is confined to less than 100 km² and declining in numbers through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants. The genus contains two species, endemic to Juan Fernandez.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651

Cunninghamia konishii
Taxodiaceae
VU A1c
Laos, Taiwan, Viet Nam
A good-quality timber tree, which is mainly known from occurrences in evergreen submontane forest in northern and central Taiwan. Many stands have been destroyed by felling and replaced with commercial plantations in Taiwan. There is a protected population in Yushan National Park. More recently the species has apparently been found in two small stands in the wild, in Hoa Phan Province in northern Laos and at Bu Huong Mountain in Viet Nam. The species is sometimes known as a variety or form of C. lanceolata.
Assessor: Pan, F.J.
Refs: 374, 11191, 15357, 19050, 19051

Cunonia aoupiniensis
Cunoniaceae
VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cunonia ouaemiensis
Cunoniaceae
VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cunonia rotundifolia
Cunoniaceae
LR/cd
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupania mollis
Sapindaceae
LR/cd
El Salvador, Guatemala
A fairly abundant species of primary forest up to an altitude of 1200 m in El Salvador. The habitat is under great pressures from logging, fires, the growing human population and agriculture. The species regenerates well and is represented in protected areas.
Assessor: World Conservation Monitoring Centre
Refs: 4862, 4974, 19030

Cupaniopsis acuticarpa
Sapindaceae
VU D2
Papua New Guinea
A small tree or shrub known only from the type collection from Central Province.
Assessor: World Conservation Monitoring Centre
Refs: 18389, 19047
Cupaniopsis bullata
Sapindaceae
VU D2
Papua New Guinea
A small tree found in secondary vegetation in Central Province, known only from the type collection.
Assessor: World Conservation Monitoring Centre
Refs: 18389, 19047

Cupaniopsis crassivalvis
Sapindaceae
EX
New Caledonia
A species once collected from an area north-east of La Conception near Nouméa. It has not been found since 1869 despite this being the botanically best known region of Grand Terre.
Assessor: Jaffré, T. et al.
Refs: 4492, 10351

Cupaniopsis euneura
Sapindaceae
VU D2
Papua New Guinea
This species is only known from the type collection, gathered from West Highlands Province.
Assessor: World Conservation Monitoring Centre
Refs: 18389, 19047

Cupaniopsis glabra
Sapindaceae
EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupaniopsis globosa
Sapindaceae
VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 4492, 10351

Cupaniopsis mosana
Sapindaceae
EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupaniopsis napaeensis
Sapindaceae
VU D2
Papua New Guinea
This species is known only from the type collection, which was located in scrub near a dry creek in Central Province.
Assessor: World Conservation Monitoring Centre
Refs: 18389, 19047

Cupaniopsis phanerophlebia
Sapindaceae
VU D2
Papua New Guinea
An understorey tree from Western Province, known only from a single collection.
Assessor: World Conservation Monitoring Centre
Refs: 18389, 19047

Cupaniopsis rosea
Sapindaceae
EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupaniopsis rotundifolia
Sapindaceae
EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupaniopsis squamosa
Sapindaceae
EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupaniopsis strigosa
Sapindaceae
VU D2
Indonesia (Sulawesi)
This species is known only from the type collection from Mount Bonthain.
Assessor: Adema, F.
Refs: 18389, 19047

Cupaniopsis subfalcata
Sapindaceae
EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupaniopsis tontoutensis
Sapindaceae
EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupheanthus microphyllus
Myrtaceae
VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cupressus arizonica var. montana
Cupressaceae
VU D2
Mexico (Baja California)
Very few trees remain in the area where the variety was described. They are confined to steep slopes in San Pedro Martir. Large herds of cattle appear to be allowed to graze indiscriminately even though the area has national park status.
Assessor: SSC Conifer Specialist Group
Refs: 6972, 11886, 13041, 18751

Cupressus arizonica var. nevadensis
Cupressaceae
VU D2
USA (California)
This variety is known from four localities in the Piute Mountains and their vicinity. Some risk occurs from fires, grazing and mining. Several occurrences are contained within protected areas.
Assessor: SSC Conifer Specialist Group
Refs: 374, 3786, 6972, 13041, 19193

Cupressus arizonica var. stephensonii
Cupressaceae
VU D2
USA (California)
Only two populations, approximately 1000 individuals, exist in fire-prone areas within Cleveland National Forest and Cuyamaca Rancho State Park. The Conejo fire of 1950 extirpated part of the population. Species management guidelines are adopted in Cleveland...
National Forest. There is a lack of agreement over the
variety's taxonomic status, it commonly being
considered to hold species status.
Assessor: SSC Conifer Specialist Group
Refs: 374, 3786, 6972, 11886, 13041, 19193

Cupressus atlantica
Cupressaceae
EN A1abc, B1+2h, C1+2a, D1
Morocco
One or two small groves remain in dry woodland on
steep scree slopes in Oued n'Fiss Valley south of
Marakech in the Atlas Mountains. Estimates of the area
of occupancy have declined from 5500ha in 1950 to
1460ha in 1986, largely because of habitat degradation,
overgrazing and to some extent exploitation.
Observations during a visit to the site in 1997 indicated a
complete absence of natural regeneration. One
subpopulation is fenced and attempts are being made to
replant the species but the rates of success are very low.
Assessor: SSC Conifer Specialist Group
Refs: 374, 4506, 13041, 19191

Cupressus bakeri
Cupressaceae
USA (California, Oregon)
This species is known from nine scattered sites in north
California and the extreme south of Oregon. Only one of
them extends as far as two miles in length. Locations
once known have been lost. Although fire-adapted, it is
vulnerable to intense fires, which break out when the
fuel load has built up.
Assessor: SSC Conifer Specialist Group
Refs: 13041, 18751, 19193

Cupressus cashmeriana
Cupressaceae
VU B1+2c
Bhutan, India (Arunachal Pradesh)
The natural distribution of the species is probably
confined to west central Bhutan and Arunachal Pradesh
but it is obscured by the widespread cultivation of the
plant. Populations do not appear to be large.
Assessor: SSC Conifer Specialist Group
Refs: 4237, 13041, 18751

Cupressus chengiana
Cupressaceae
VU A1cd
China (Gansu, Sichuan)
A few locations are known where the species dominates
in mid-elevation coniferous forest on the flanks of
gorges and arid valleys. Constant overcutting has
eliminated the species in accessible sites and it is being
replaced by thickets of other species.
Assessor: SSC Conifer Specialist Group
Refs: 374, 1818, 11847

Cupressus chengiana var. jiangeensis
Cupressaceae
CR D1
China (Sichuan)
This variant of the threatened C. chengiana is restricted
to a single tree in Sichuan. It is monoeocious.
Assessor: SSC Conifer Specialist Group
Refs: 374

Cupressus douglouxianna
Cupressaceae
DD
China (Sichuan, Xizang, Yunnan)
The native range of the species has not been resolved.
Large trees are known to occur in a remote part of Tibet.
The largest population occurs in Yunnan, where it is
widely distributed, especially along a historic trade route
to Sikkim. These trees may have been planted.
Assessor: SSC Conifer Specialist Group
Refs: 374

Cupressus dumreiana
Cupressaceae
CR A2c, C1
Algeria
Three populations, containing 153 individuals and
covering 200sq.km, are thought to exist. The main
concentration is in Tassili N'Ajjer National Park, which
has been designated a World Heritage Site. There is no
regeneration in the wild. It is believed that the water
table has sunk to an extent that impedes regeneration.
The species has been successfully established in
cultivation.
Assessor: SSC Conifer Specialist Group
Refs: 374, 12567

Cupressus gigantea
Cupressaceae
VU A1d
China (Xizang)
Confined to eastern Tibet, the species forms sparse pure
stands along rivers on sheltered dry slopes. The largest
individuals are said to be in a cemetery. Little
regeneration is apparent except in the Yarlungzangbo
River basin but the tree coppices well.
Assessor: SSC Conifer Specialist Group
Refs: 1818, 11847, 13041

Cupressus goveniana var. abramsiana
Cupressaceae
EN C2a
USA (California)
Commonly recognised as A. abramsiana, this variety is
rare and confined to fewer than 10 groves in the Santa
Cruz Mountains. Each population is thought to have
fewer than 100 individuals. There are threats from
residential and agricultural developments, alteration of
fire regimes and introgression of conifer species, which
may also increase the risk from fires. None of the
populations is officially protected.
Assessor: SSC Conifer Specialist Group
Refs: 11886, 13041, 18751, 19193

Cupressus goveniana var. goveniana
Cupressaceae
VU D1
USA (California)
Less than 1000 individuals are thought to exist in five
populations, in S.P.B. Morse Botanical Reserve, Point
Lobos Reserve, where the species is protected, and
along the coast in Mendocin and north-west Sonoma
Counties. The coastal populations are sometimes known
as var. pygmaea. There are some pressures from local
development, altered fire regimes and possibly from
non-native plants.
Assessor: SSC Conifer Specialist Group
Refs: 11886, 13041, 18751, 19193

Cupressus guadalupensis var. forbesii
Cupressaceae
VU B1+2c
Mexico (Baja California), USA (California)
Fewer than five occurrences are known in California.
One of them is relatively inaccessible but the others are
susceptible to frequent wildfires and development.
Individuals can be found along roadsides. Mexico also
harbours few, perhaps two, populations.
Assessor: SSC Conifer Specialist Group
Refs: 0972, 11886, 13041, 18751, 19193
Cupressus guadalupensis var. guadalupensis
Cupressaceae
Mexico (Guadalpe Is.)
A population of 200 is thought to exist in two small stands. Regeneration is seriously hampered by goats.
Assessor: SSC Conifer Specialist Group
Refs: 374

Cupressus lastianica var. benthamii
Cupressaceae
Mexico (Hidalgo, Puebla, Veracruz)
The species occurs in montane forest, in oak and mesophilous formations, in the border regions of several Mexican states.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6541, 19161

Cupressus macrocarpa
Cupressaceae
USA (California)
A widely planted and naturalised species which, in the wild, is restricted to two healthy subpopulations occurring in Point Lobos and Point Cypress. The former is thought to contain between 500 and 1000 individuals. Both are protected.
Assessor: SSC Conifer Specialist Group
Refs: 7222, 11886, 13041, 19193

Cupressus sempervirens
Cupressaceae
Greece (Crete), Iran, Turkey
The species is sometimes referred to in different varieties. Only var. horizontalis is believed to originate from the wild and therefore is the only taxon considered in this context. The type specimen was collected from Crete. Populations which are questionably wild are also known from southern Turkey and northern Iran, where it is very vulnerable. It is planted all over the Mediterranean.
Assessor: SSC Conifer Specialist Group
Refs: 3489, 4508, 5519, 7222, 16111

Cupressus torulosa
Cupressaceae
Bhutan, China (Xizang), India (Jammu-Kashmir), Nepal, Pakistan
Assessor: SSC Conifer Specialist Group
Refs: 374, 848, 7222, 11530, 13041, 16781, 18710

Cussonia banoensis
Araliaceae
Ghana
The only natural populations appear to occur in Ghana. Occurrences in Côte d’lvoire are reported to be planted. The species regenerates freely in a wide ecological range, but is best established in upland evergreen forest, where there are threats from farming, fires, forest management activities and mining.
Assessor: Hawthorne, W.
Refs: 6127, 12061

Cussonia gamtoosensis
Araliaceae
South Africa (Eastern Cape)
Occurring in thicket vegetation on stony hill sides, the species, for many years, was only known from the type locality. Three localities are now known. The species does not appear to be very abundant, but it is difficult to spot in the dense thickets where it grows. Large tracts of the habitat have been cleared for agriculture, settlement and industrial development, possibly resulting in the species becoming fragmented and the subpopulations becoming isolated. Any developments at the type locality could seriously affect the species.
Refs: 689, 19218

Cussonia ostini
Araliaceae
Ethiopia
An Ethiopian endemic, occurring abundantly in upland savanna in the west. Increasing human population and their activities threaten the habitat to some extent, especially in the north.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 18523

Cuviera migeodii
Rubiacae
VU B1+2b, D2
Tanzania
A species of dry forest or open woodland, known only from Tendaguru.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Cuviera schliebenii
Rubiacae
EN B1+2bc
Tanzania
Known only from Litipo (10km²) and Rondo (140km²) Forest Reserves, this species is relatively well protected. Both forests have been extensively logged and other activities have contributed to large areas being disturbed. The demand for land for commercial and subsistence agriculture is also strongly felt but local activities and encroachment are discouraged by the presence of forest management operations.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Cuviera tomentosa
Rubiacae
VU B1+2b
Mozambique, Tanzania
A species confined to relatively unexplored areas of dry coastal forest in Kingupira in Tanzania and northern Mozambique.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 8814

Cyanea aculeatflora
Campanulaceae
VU D2
USA (Hawaii)
A palm-like tree restricted to East Maui, where it occurs in rainforest between 945 and 1450m altitude on the windward slopes of Haleakala.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Cyanea arborea
Campanulaceae
EX
USA (Hawaii)
A palm-like tree formerly known from a narrow altitudinal band in montane forest on the slopes of Haleakala on East Maui. It was last collected in 1928.
Assessor: World Conservation Monitoring Centre
Refs: 3372
Cyanea giffardii
Campanulaceae  EX
USA (Hawaii)
This species is known only from the type material, which was collected in 1917 from a locality of rainforest near Glenwood on Hawaii.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea hastatiflora ssp. carlsonii
Campanulaceae  CR C2a, D1
USA (Hawaii)
A montane rainforest taxon which is known to have occurred at only three sites on the western slopes of Hualalai on Hawaii. One population is found at Honouaulu Forest Reserve and another at Keokea, 45km away. In addition two populations have been planted within the native range, taking the total population size to possibly more than 50 individuals. Invasive plants and grazing are a persistent problem. The subspecies is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre Refs: 3372, 19039

Cyanea hastatiflora ssp. hastatiflora
Campanulaceae  VU D2
USA (Hawaii)
A palm-like tree which occurs in rainforest between 1200 and 1400m altitude on the windward slopes of Haleakala on East Maui.
Assessor: World Conservation Monitoring Centre Refs: 3372, 3786

Cyanea hardyi
Campanulaceae  VU D2
USA (Hawaii)
Restricted to an area in the south of Kauai, the species occurs in forested valleys up to an altitude of 790m.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea horrida
Campanulaceae  VU D2
USA (Hawaii)
A palm-like tree known only from East Maui, where it is restricted to rainforest and the margins of subalpine forest between altitudes of 1520 and 2000m.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea leptostegia
Campanulaceae  VU D2
USA (Hawaii)
This palm-like tree is confined to western Kauai, where it is found in moist forest 1000 and 1300m.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea macrostegia ssp. gibsonii
Campanulaceae  EN A1ce
USA (Hawaii)
The species is known from two subspecies, this one being the rarer. It is restricted to rainforest only on Lanai and has been collected very rarely in the last 50 years. The type subspecies is endemic to Maui.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea marksi
Campanulaceae  EX
USA (Hawaii)
A small palm-like tree recorded in rainforest in Kona District on Hawaii. No adult trees have been found this century, although a population was located of what appeared to be precociously flowering juvenile individuals.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea pohaku
Campanulaceae  EX
USA (Hawaii)
This species has not been seen since it was first collected in 1910. It was found in subalpine shrubland on Puunianiau, a small cinder cone on the north-west slopes of Haleakula on East Maui.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea pracer
Campanulaceae  CR C2a, D1
USA (Hawaii)
A palm-like tree formerly found in the Kamalo region on Molokai and thought to be extinct until it was recently rediscovered at Puu O Kahe, west of Kamalo. A total of eight individuals have been found in three populations in an area known to harbour feral goats. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre Refs: 3372, 19040

Cyanea pycnocarpa
Campanulaceae  EX
USA (Hawaii)
Now presumed extinct, this species is known only from the type material. It was collected on the Kohala Mountains on Hawaii.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea quercifolia
Campanulaceae  EX
USA (Hawaii)
A poorly known species which is recorded only from the type collection taken from an area between 915 and 1220m on the leeward slopes of Haleakala on East Maui.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea solenocalyx
Campanulaceae  VU D2
USA (Hawaii)
Confined to Molokai, the species is found in rainforest at medium elevation in the east of the island.
Assessor: World Conservation Monitoring Centre Refs: 3372

Cyanea stictophylla
Campanulaceae  CR C2a
USA (Hawaii)
A shrub or tree of montane rainforest restricted to the slopes of Mauna Loa, where it is now known from fewer than 20 individuals in three populations near Keauhou, Kohae and on Puuwaawaa. Another 46 individuals have been planted in exclosures at Puuwaawaa and Kau
Cyclobalanopsis repandifolia
Fagaceae
CR B1+2b, C2a
Taiwan
A tree with a scarce distribution in areas of lowland broadleaved forest in Chinsuluiying on the Hengchun Peninsula. In the few populations known, regeneration is poor, seed crops appear to be frequently decimated by squirrels and other animals. No protection or conservation measures are in place.
Assessor: Pan, F.J.
Refs: 3295, 19050

Cyclobalanopsis rex
Fagaceae
DD
China (Yunnan), Laos, Myanmar
In China the main populations are found at Mengla and Tengchong. They are extremely small and largely made up of senescing trees in areas of monsoon forest on limestone hills. Regeneration is poor and the habitat degraded. Information is needed on the populations in Laos and Myanmar.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 19055

Cyclophyllum tenuipes
Rubiaceae
VU D1
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Cymbopetalum baillonii
Annonaceae
VU A1c
Mexico (Chiapas, Oaxaca, Veracruz)
Confined to the Gulf region, the species occurs in most areas of remaining rainforest, extending as far north as northern Veracruz.
Assessor: World Conservation Monitoring Centre
Refs: 5993, 19124

Cymbopetalum mayanum
Annonaceae
EN C2a
Guatemala, Honduras
Populations are small and scattered in the Atlantic lowlands in areas of varying humidity. The habitat continues to diminish through conversion to agriculture.
Assessor: Nelson, C.
Refs: 13228, 13995

Cymbopetalum turulosum
Annonaceae
VU A2c
Costa Rica, Panama
The main part of the species range occurs in areas of lowland rainforest in Costa Rica, concentrated in the region of Rio San Juan and La Selva Biological Station in the north-west. In Panama collections have been made in Chiriquí, near the border with Costa Rica. The populations here appear to be very restricted and under some threat from cattle ranching and commercial banana cultivation.
Assessor: Mitré, M.
Refs: 5125, 7980, 16772

Cynometra beddomei
Leguminosae
EX
India (Kerala)
A large tree, which has only ever been recorded from Tambacherry Ghat, where it was found in submontane streamside forest. It has not been found since 1870.
despite intensive explorations. Forestry plantations are now widely established where there was once primary forest.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 4799, 8483, 19144

### Cynometra bourdillionii

**Leguminosae**

**EN B1+2c**

India (Karnataka, Kerala)

A lowland forest tree which appears to occur in two main areas: in South Kanara, Karnataka, and in the Agasthyamalai range in Kerala. Widespread and indiscriminate cutting and expansion of commercial agriculture have resulted in a significant reduction in the extent of these forests.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 2538, 19144

### Cynometra brachyrhachis

**Leguminosae**

**VU B1+2bc, D2**

Tanzania

The species is locally dominant in three patches of coastal forest in the Pangani River basin. Two of them are contained within forest reserves: Gendagenda Forest Reserve (27km²), and Tongwe Forest Reserve (12km²), the remaining population occurs in the Pangani Falls forest (1km²), where a hydroelectric dam has been built. The demand for agricultural land puts pressure on all these sites. The species is also reported to occur in lowland forest in the East Usambara Mountains. *FTEA* notes this may be a species of *Scorodophloeus*.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3925, 5654, 16796

### Cynometra cubensis

**Leguminosae**

**EN B1+2c**

Cuba

An uncommon tree endemic to semi-deciduous forests, mainly in gallery communities along rivers and creeks in Pinar del Rio Province. Its habitat has suffered intense degradation from logging and the ensuing invasion of exotic or secondary vegetation.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 16327, 18485, 19149

### Cynometra engleri

**Leguminosae**

**VU B1+2b, D2**

Tanzania

A species found only in lowland semi-deciduous forest in Sigi valley at the foot of the East Usambara Mountains.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3356, 3925, 5204, 5654

### Cynometra falcata

**Leguminosae**

**CR D1**

Fiji

A slender tree, endemic to Fiji and known only from the two collections: the type was gathered from Viti Levu in 1840 and the second collection was from Vanua Levu in 1950.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 18818

### Cynometra filifera

**Leguminosae**

**CR B1+2abcde**

Tanzania

The species is locally dominant in a 0.25ha patch of forest near Lindi and elsewhere only from a single forest patch located 40km away. The latter site has not been visited recently and the forest may have disappeared.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3925, 16796

### Cynometra gillmanii

**Leguminosae**

**CR B1+2abcde, C2b**

Tanzania

The species is known from coastal forest near Mkoe from a single collection made in the 1940s. It is possible the species habitat has been destroyed.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3925, 16796

### Cynometra inaequifolia

**Leguminosae**

**VU A1d**

Malaysia (Peninsular Malaysia, Sabah), Philippines, Thailand?

A small tree of lowland forest which is used as a source of *kekatong* timber.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 4919, 12937, 14573

### Cynometra longipedicellata

**Leguminosae**

**VU B1+2b**

Tanzania

This species is largely known from areas of moist lowland forest reaching 900m in the East Usambara Mountains. A population may also occur in the Pugu Forest Reserve (22km²) near Dar es Salaam.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3356, 3925, 5204, 5654

### Cynometra lukei

**Leguminosae**

**EN B1+2c**

Kenya, Tanzania

Formerly known only from Kenya, this riverine forest tree has recently been found in Selous National Park in Tanzania. The Kenya population is small and confined to the seasonally flooded banks of the Tana River, near Wenje, where it is under some threat from increasing human settlement and agriculture.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 5654, 6396, 17859

### Cynometra suaheliensis

**Leguminosae**

**VU B1+2b**

Kenya, Tanzania

The range of this dry coastal forest species extends from Kwale and Kilifi Districts in Kenya into northern Tanzania in the Pangani River basin.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3356, 3925, 5204, 6396, 7550

### Cynometra travancorica

**Leguminosae**

**EN B1+2c**

India (Karnataka, Kerala, Tamil Nadu)

A tall tree reported from about four scattered locations in the Western Ghats, occurring in lowland evergreen forest on rocky slopes. In Karnataka the species occurs in Sollekallu in Chikmagalur and in Kerala there are records from the Palghat area and also apparently from the Travancore range. There has been much loss of habitat because of road building, expanding agriculture and other developments.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 14276, 19144
Cynometra ulugurensis
Leguminosae
EN C2b, D1
Tanzania
This tree is endemic to Kimboza Forest Reserve (4km²) at the foot of the Uluguru Mountains. The forest is disturbed because of previous logging and the planting of exotic species, including a Cedrela species which has become invasive. The surrounding area is densely populated and the demand for land to cultivate is strong. There are now two forest guards to stop illegal cutting and encroachment.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3925, 16796

Cynometra webberi
Leguminosae
VU B1+2b
Kenya, Tanzania
A shrubby tree occurring in dry coastal forest patches within an area ranging from Kwaile and Kilifi Districts in Kenya into Tanzania. In some forest types it forms the dominant canopy element. Soils with impeded drainage and unpredictable water supply are especially favoured by the species.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 10961

Cyphosperma elegans
Palmae
VU B1+2c
New Caledonia
This species is localised to the north-east on low-lying areas of schistose rocks.
Assessor: Jaffré, T. et al.
Refs: 10351, 19118

Cyphosperma nuclei
Palmae
CR B1+2c
New Caledonia
The entire population is reduced to a small area of forest on raised coral on the north-east coast of Lifou in the Loyalty Islands. Regeneration is poor. The only other species in the genus is also threatened and confined to north-east New Caledonia.
Assessor: Jaffré, T. et al.
Refs: 10351, 19118

Cyphosperma tanga
Palmae
CR A1c
Fiji
Only a few populations are known, confined to areas of dense forest on Viti Levu. Cutting by the Forestry Department resulted in the serious depletion of one population in 1970 and also continues to affect another more recently discovered population. Seed crops of reasonable size appear to be extremely infrequent.
Assessor: Fuller, D.
Refs: 6053, 19118

Cyphosperma trichospadix
Palmae
VU A1c
Fiji
A few small populations are known from areas of dense forest between 600 and 760m on Vanua Levu and Taveuni. Some areas are being cleared for coconut plantations.
Assessor: Fuller, D.
Refs: 6053, 19118
**Cyrtochrys kisar**  
_Gesneriaceae_  
DD  
_Solomon Islands (South Solomon)_  
A palm endemic to the islands of Choiseul and Baga, where it is scattered in lowland to submontane rainforest.  
_Assessor: Dowl, J.L._  
_Refs: 19118_  

**Dacrycarpus cinabaluensis**  
_Podocarpaceae_  
LR/cd  
_Malaysia (Sabah)_  
A shrub or small tree, which is known only from elevations above 2100m on Mount Kinabalu. Populations are protected within the national park. The species is thought to be susceptible to periodic droughts, but populations appear to have successfully survived recent dry spells.  
_Assessor: SSC Conifer Specialist Group_  
_Refs: 6851, 13041, 19125_  

**Dacrycarpus steupii**  
_Podocarpaceae_  
LR/nt  
_Indonesia (Irian Jaya, Kalimantan, Sulawesi)_  
A tree of submontane swamp or disturbed forest, where it can form pure stands. In Kalimantan it was known from a now extinct population near Balikpapan. In Sulawesi it is confined to the Latimodjong Mountains, where lower slopes have been cleared in places for agriculture. Populations in New Guinea are thought to be widespread.  
_Assessor: SSC Conifer Specialist Group_  
_Refs: 374, 6851, 13041, 18751_  

**Dacrydium comosum**  
_Podocarpaceae_  
EN B1+2c  
_Malaysia (Peninsular Malaysia)_  
A relatively rarely collected shrub or small tree, which grows on exposed ridges in stunted mossy montane forest. Populations occurring on the Gunung Tahan Massif are protected within a national park. In the southern part of the species range, however, the habitat is threatened by infrastructural development.  
_Assessor: SSC Conifer Specialist Group_  
_Refs: 6851, 13041, 15966, 19073, 19192_  

**Dacrydium cornwalliana**  
_Podocarpaceae_  
DD  
_Indonesia (Irian Jaya), Papua New Guinea_  
The species grows in some abundance in confined patches of cloud forest or mossy heath forest above 1430m. Collections are few, largely because the area is poorly explored.  
_Assessor: SSC Conifer Specialist Group_  
_Refs: 374, 6851_  

**Dacrydium ericoides**  
_Podocarpaceae_  
VU D2  
_Malaysia (Sarawak)_  
A locally abundant tree of primary mossy forest, occurring on exposed ridges in two locations on Mount Dulit and Meruung Plateau. It appears to be confined to ultrabasic soils. The area could possibly come under the heavy logging regimes which have occurred throughout the country.  
_Assessor: SSC Conifer Specialist Group_  
_Refs: 374, 6851, 19192_  

**Dacrydium gibbsiae**  
_Podocarpaceae_  
LR/ed  
_Malaysia (Sabah, Sarawak)_  
A shrub or small tree, known only from Mount Kinabalu and the summit ridge on Mount Murud in Sarawak. In the former location the species appears to be common at high elevations, particularly on ultramafic substrates. The population here is protected within the national park.  
_Assessor: SSC Conifer Specialist Group_  
_Refs: 374, 6851, 12121, 19125_  

**Dacrydium gracilis**  
_Podocarpaceae_  
VU D2  
_Malaysia (Sabah, Sarawak)_  
A large tree with a distribution which appears to be highly localised within a narrow alitudinal range on Mount Kinabalu, the Crocker range and adjacent parts of Sarawak. It is an integral part of the lower montane oak–laurel forest. Trees are hard to distinguish from other_  
_Dacrydium_ species and so are likely to be cut wherever accessible for construction timber. Populations on Mount Kinabalu are almost entirely contained within the national park and so are relatively well protected.  
_Assessor: SSC Conifer Specialist Group_  
_Refs: 374, 6851, 12121, 19125_
**Dacrydium guilauminii**  
Podocarpaceae  
New Caledonia  
A rare rhyphye confined to a single river basin where it grows in a restricted area of moist woodland. The largest population occurs at Chutes de la Madeleine, which, although given the status of a botanical reserve, is inadequately managed. The area is fire-prone, the shrub layer has regressed with increasing numbers of visitors and there is a threat of pollution from mining operations upstream.  
Assessor: SSC Conifer Specialist Group  
Refs: 10351, 12630

**Dacrydium isocphodioides**  
Podocarpaceae  
New Caledonia  
A New Caledonian endemic confined to a few sites of cloud forest in the southern massif, e.g. Mont Mou, Mont Humboldt and Mont Ningua. Populations are small and confined to high, usually inaccessible, mountain ridges. Regeneration does not appear to be good.  
Assessor: SSC Conifer Specialist Group  
Refs: 9631, 12630

**Dacrydium magnum**  
Podocarpaceae  
Indonesia (Moluccas), Papua New Guinea, Solomon Islands  
Populations are known from the islands of Guadalcanal, Choiseul and Santa Yasbel in the Solomons, from the Louisiades in Papua New Guinea and Obi Island in the Moluccas. The species is scattered to locally common in areas of lowland rainforest, especially on ridge crests. Forest management activities and agricultural pressures could cause rapid population losses to most or all parts of the range.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 6851, 19192

**Dacrydium nausoriense**  
Podocarpaceae  
Fiji  
Endemic to the Nausori Highlands in western Viti Levu, the species occurs in small stands within a closely confined area. There is evidence that regeneration is poor. The area is unprotected and the stands are open to cutting, burning, agricultural and pastoral activities.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 9631, 18818

**Dacrydium spathoides**  
Podocarpaceae  
Indonesia (Irian Jaya)  
A poorly-collected species, known only from a small area in a remote locality along the Idenburg River in Western Irian Jaya. Further field work could reveal a more substantial distribution.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 6851, 19192

**Dacryodes breviracemosa**  
Burseraceae  
Malaysia (Peninsular Malaysia)  
Known from a single collection this lowland rainforest species is confined to Terengganu.  
Assessor: Chua, L.S.L.  
Refs: 19073

**Dacryodes colombiana**  
Burseraceae  
Colombia  
An endemic to Boyacá.  
Assessor: Calderon, E.  
Refs: 15343, 19069

**Dacryodes elmeri**  
Burseraceae  
Brunei, Malaysia (Sabah)  
This very rare tree is known only from a single collection taken from lowland forest in Tawau, Sabah and from Brunei.  
Assessor: World Conservation Monitoring Centre  
Refs: 18327, 19017

**Dacryodes expansa**  
Burseraceae  
Brunei, Malaysia (Sabah)  
A small tree of lowland forest known from a single collection from Kuching, Sarawak and from Brunei.  
Assessor: World Conservation Monitoring Centre  
Refs: 18327, 19017

**Dacryodes igaganga**  
Burseraceae  
Cameroon, Congo?, Gabon  
A timber species which is confined to localities of lowland rainforest in Cameroon. Ngounié and Lopé Forest Reserve in Gabon and possibly Congo. There is concern over the rate at which logging has taken place and the decline in the habitat. Lopé is proposed for designation as a national park.  
Assessor: World Conservation Monitoring Centre  
Refs: 2773, 5595, 12509

**Dacryodes kingii**  
Burseraceae  
Malaysia (Peninsular Malaysia)  
A small tree of late secondary and primary forest of up to 600m altitude. This species is protected in Taman Negara National Park.  
Assessor: Chua, L.S.L.  
Refs: 19073

**Dacryodes macrocarpa var. kostermansii**  
Burseraceae  
Indonesia (Kalimantan), Malaysia (Sabah)  
Restricted to coastal mixed swamp forest, this variety is known only from Kalimantan and from a single collection from Sabah.  
Assessor: World Conservation Monitoring Centre  
Refs: 7673

**Dacryodes macrocarpa var. patentinervia**  
Burseraceae  
Brunei, Malaysia (Sabah, Sarawak)  
Occurring in lowland to submontane forest, the variety is known only from Bukit Hampuan in Ranau District, in Sabah, and from scattered populations in the 3rd, 4th and 5th Districts in Sarawak. It is also found in Brunei.  
Assessor: World Conservation Monitoring Centre  
Refs: 7673

**Dacryodes multijuga**  
Burseraceae  
Malaysia (Peninsular Malaysia)  
Known only from the type collection, gathered at
Pehang in Jerantut, this rare species occurs in moist forest at 60m. 
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8464, 19073

**Daeryodes puberula**  
Burseraceae  
**VU B1+2a**  
Malaysia (Peninsular Malaysia)  
A tree of moist forest up to 1000m altitude in the states of Perak, Pahang, Negeri Sembilan and Malacca.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Dactyladenia dinklagei**  
Chrysobalanaceae  
**VU A1c, B1+2c**  
Ghana  
An uncommon species restricted to wet evergreen forest in Upper Guinea. General losses to this habitat have been caused by mining activities, logging and commercial planting.  
**Assessor:** Hawthorne, W.  
**Refs:** 8369, 12061

**Dactyladenia hirsuta**  
Chrysobalanaceae  
**EN B1+2c**  
Côte d’Ivoire, Ghana  
Rare and confined to remaining areas of wet evergreen forest in Ghana and largely confined to Tai National Park in south-west Côte d’Ivoire, this species has suffered extensive logging of its habitat, the effects of mining and the establishment of commercial plantations.  
**Assessor:** Assi, A.  
**Refs:** 8369, 12061, 12822

**Dactyladenia laevis**  
Chrysobalanaceae  
**VU D2**  
Gabon  
A small tree found only in the vicinity of Libreville. Logging has taken place in the area and nearly all the remaining forest is under concession to logging companies. It is possible, with further exploration, that the species may be found to be more widespread.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19043

**Dahliregodendron natalense**  
Lauraceae  
**EN B1+2ac, C2a, D1**  
South Africa (Eastern Cape, KwaZulu-Natal)  
A palaeoendemic usually found on forest margins, both next to and away from stream banks. A few individuals have been recorded from within the climax forest, but these were invariably very old and senescent. The species is known from a number of localities; it has not been found again at Ngoye forest, despite several searches and it is probably extinct at this locality; there are at least two plants in the Nqutu area; a single large tree, which is dying of old age, is in Umdoni Park; the largest number of trees are found in the remnant forest patches between the Msikaba and Umtamvuna Rivers. The total number of mature individuals is estimated to be less than 200. Regeneration from seed has not been recorded and plants in fruit are seldom recorded. This may be the result of the synchronised dichogamy, where male and female flowers are produced at different times. Their isolated occurrence then provides little chance of pollination. There is some debate about the taxonomic placement of this species, it is maintained here as a monotypic genus.  
**Assessor:** Hilton-Taylor, C. et al.  
**Refs:** 689, 19218

**Dalbergia abrahamii**  
Leguminosae  
**EN B1+2abcd**  
Madagascar  
A tree known only from a few localities around Autrânanana and the Ankarana Massif in areas of limestone outcrops. Populations are fragmented and much of the range is decreasing through forest destruction. The main threat comes from selective felling for timber and charcoal. Some localities are protected in Ankarana Reserve.  
**Assessor:** Du Puy, D.  
**Refs:** 12353, 19115

**Dalbergia acariantha**  
Leguminosae  
**VU B1+2b**  
Tanzania  
This species is restricted to dry coastal forest patches in east and south-east Tanzania.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 2459, 3356, 7550

**Dalbergia albisfolia ssp. echinocarpa**  
Leguminosae  
**VU B1+2c**  
Nigeria  
A subspecies endemic to forest areas in southern Nigeria. The extent of the habitat has unquestionably declined as there has been large-scale deforestation in the last three decades.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2773, 5651, 7550, 11504

**Dalbergia andapensis**  
Leguminosae  
**EN B1+2abc**  
Madagascar  
A species confined to north-east Madagascar in humid, broadleaved evergreen forest between the altitudes of 400 and 500m. This rare species is poorly known, apparently having a restricted distribution in an area of declining forest.  
**Assessor:** Du Puy, D.  
**Refs:** 19115

**Dalbergia annamensis**  
Leguminosae  
**EN A1cd**  
Viet Nam  
Endemic to Viet Nam, this small tree is scattered in lowland dry open forest in Phú Yên and Khánh Hòa Provinces. This species is endangered by overexploitation for its valuable wood.  
**Assessor:** Nghia, N.H.  
**Refs:** 848, 19091

**Dalbergia aurea**  
Leguminosae  
**VU D2**  
Madagascar  
A submontane, rainforest tree which has been collected only once from an area between the Marivorahona Massif north of the Tsaratanana Massif. This restricted area is little known but is suffering from a decline in natural vegetation.  
**Assessor:** Du Puy, D.  
**Refs:** 19115
**Dalbergia balansae**  
Leguminosae  
VU A1cd  
China, Viet Nam  
Scattered in northern Viet Nam and China, this pioneer species grows in lowland and submontane moist forest. Its distribution has been reduced by shifting cultivation. Natural regeneration is strong on fallow land. It is grown on a small scale in mixed plantations as a host plant for lac insects.  
Assessor: Nghia, N.H.  
Refs: 6125, 19091  

**Dalbergia bariensis**  
Leguminosae  
EN A1cd  
Cambodia, Laos, Thailand, Viet Nam  
A tree widely distributed and scattered in lowland and submontane broadleaved forest in Indo-China. There has been a rapid decline in the number of large trees because of overexploitation of the precious timber. It is protected from illegal cutting in Viet Nam and occurs in protected areas.  
Assessor: Nghia, N.H.  
Refs: 848, 6125, 19091  

**Dalbergia baronii**  
Leguminosae  
VU A1cd+2cd  
Madagascar  
A widespread species confined to the lowland plains of eastern Madagascar; these forests have been greatly reduced. This fine rosewood timber species grows in lowland rainforest, often in marshy areas and near mangroves. Large individuals are rare because of overexploitation.  
Assessor: Du Puy, D.  
Refs: 6161, 9090, 12353, 19115  

**Dalbergia bathiei**  
Leguminosae  
EN A1cd, B1+2abcd, C1+2a  
Madagascar  
A tree confined to a few small areas of lowland, evergreen, humid forest, mainly along river margins to the north and south of Toamasina, eastern Madagascar. As a result of selective exploitation, this species is now very rare. Very few adult specimens have been recorded and the population is severely fragmented. This species is a fine rosewood and is traded nationally and locally.  
Assessor: Du Puy, D.  
Refs: 19115  

**Dalbergia bojeri**  
Leguminosae  
EN B1+2abcde  
Madagascar  
A rare climbing species known from very few collections in an area of eastern Madagascar largely cleared of lowland forest. The total population is fragmented and few mature individuals remain.  
Assessor: Du Puy, D.  
Refs: 19115  

**Dalbergia boniana**  
Leguminosae  
DD  
Viet Nam  
Assessor: Nghia, N.H.  
Refs: 19091  

**Dalbergia brachystachya**  
Leguminosae  
EN B1+2abcde  
Madagascar  
This species occurs in evergreen, humid forest between 1000 and 1500m. Currently the only population known can be found north of Lake Aloatra in a region with only a few patchy forest remnants; these remnants are still in decline. This species is traded locally and nationally as fuel and timber.  
Assessor: Du Puy, D.  
Refs: 19115  

**Dalbergia bracteolata**  
Leguminosae  
LR/nt  
Kenya, Madagascar, Mozambique, Tanzania  
A lowland tree or scандent shrub, occurring in deciduous, seasonally dry forest and woodland. It is widespread and quite common throughout western and northern Madagascar, as well as in localised forest patches in eastern Africa. However, this species distribution is highly fragmented largely because of extensive deforestation. A 20–50% population decline is expected over the next 100 years in Madagascar.  
Assessor: Du Puy, D.  
Refs: 6396, 7550, 12353, 19115  

**Dalbergia cambodiensis**  
Leguminosae  
EN A1cd  
Cambodia, Viet Nam  
 Widely distributed but scattered, this tree occurs in moist lowland forest. Its wood is valuable and continues to be exploited illegally.  
Assessor: Nghia, N.H.  
Refs: 19091  

**Dalbergia capuronii**  
Leguminosae  
EN B1+2abcd  
Madagascar  
A rare species known from only four collections from two localities in remnants of evergreen forest in central Madagascar between 1200m and 1300m. These forest fragments are seriously threatened and declining.  
Assessor: Du Puy, D.  
Refs: 19115  

**Dalbergia catipenonii**  
Leguminosae  
VU B1+2abcd  
Madagascar  
A species restricted to remnants of evergreen forest around the capital, Antananarivo, and Lake Aloatra, some localities lie within the Manakambahin Natural Reserve, but other areas are exposed to exploitation and clearance.  
Assessor: Du Puy, D.  
Refs: 19115  

**Dalbergia chapelieri**  
Leguminosae  
VU A1cd+2cd  
Madagascar  
This species occurs in humid, evergreen forest up to 1000m altitude. Although widespread, it occurs mainly in lowland forest which has been and continues to be extensively cleared. This species is traded in minor international, national and local markets.  
Assessor: Du Puy, D.  
Refs: 19115  

**Dalbergia chlorocarpa**  
Leguminosae  
VU A1acd+2cd  
Madagascar  
A Madagascan endemic occurring in lowland, seasonally dry deciduous forest. Although fairly widespread in western Madagascar, the primary
vegetation in this area has been extensively destroyed and is still decreasing. The species is selectively felled for timber and fuel for export. Protected populations are known from Ankarakantsika Natural Reserve, Namoroka Reserve and Bemaraha Reserve.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia eniadoides**  
*Leguminosae*  
Cambodia, Laos, Thailand, Viet Nam  
**Assessor:** Nghia, N.H.  
**Refs:** 19091

**Dalbergia eremicola**  
*Leguminosae*  
Kenya, Somalia  
The largest population of this small tree occurs in Kenya where it appears to be quite common in bushland near Wajir. It also extends into a small area of southern Somalia.

Assessor: Thulin, M.
Refs: 1308, 6396, 7550, 18665

**Dalbergia erubescens**  
*Leguminosae*  
EN B1+2abde  
Madagascar  
A species known from two remnants of submontane, evergreen forest in a very restricted area of Ivoibibe. Trees are selectively felled and the habitat is in decline.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia funerea**  
*Leguminosae*  
DD  
El Salvador, Guatemala  
In El Salvador the species is confined to Santa Ana and Chalatenango, where it occurs in pine-oak forest up to 2000m. There have been no recent reports of its occurrence and the area is unprotected and susceptible to logging and expanding agricultural development. The wood is of wide importance in carpentry and construction. Information is needed on the Guatemalan population.

Assessor: World Conservation Monitoring Centre  
Refs: 4862, 4974, 10395, 19030

**Dalbergia fusca var. enneandra**  
*Leguminosae*  
VU B1+2c  
China (Yunnan)  
This variety is confined to localities of lowland semi-deciduous forest at Simao, Meijiang, Jianchen and Jinghong in southern Yunnan. Overcutting of the timber, encroaching cultivation and habitat degradation have caused population reductions. The taxon has been observed to occur quite frequently in scrub, regenerating after the destruction of forested areas.

Assessor: Sun, W.
Refs: 1818, 11847, 19055

**Dalbergia gabberima**  
*Leguminosae*  
VU B1+2de  
Madagascar  
Two subspecies are recognised. Both have a restricted range within declining areas of seasonally dry forest and woodland on limestone outcrops. Trees are selectively felled to supply local and national markets. Populations are recorded in Ankarakana and Bemaraha Reserves.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia glauccocarpa**  
*Leguminosae*  
EN B1+2abde  
Madagascar  
Currently this species is known only from the Sambrina margins of north-west Madagascar where it is selectively felled for the local and national timber
markets. The deciduous, seasonally dry, sandstone forest habitat of this species is severely fragmented.

**Assessor:** Du Puy, D.
**Refs:** 19115

**Dalbergia glomerata**
**Leguminosae**  
**VU A1c**
Mexico (Chiapas, Oaxaca, Veracruz)
A species, endemic to remaining rainforest in the Gulf region, occurring as far north as southern Veracruz.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5993, 19124

**Dalbergia greveana**
**Leguminosae**  
**LR/nt**
Madagascar
This species occurs in deciduous, seasonally dry forest and woodland up to 800m. Although widespread in western Madagascar, trees are sought-after and selectively felled for the high-quality wood which forms the bulk of timber wood exports from western Madagascar. Population numbers have declined over the entire range. Some localities are protected in Ankarafantsika Nature Reserve and in Ankarana Special Reserve.

**Assessor:** Du Puy, D.
**Refs:** 19115

**Dalbergia hildebrandtii**
**Leguminosae**  
**VU A1cd+2cd**
Madagascar
The lowland dry forest and woodland habitat of this species is being gradually reduced and fragmented. Although widespread, the species is uncommon and selectively felled for the valuable rosewood timber.

**Assessor:** Du Puy, D.
**Refs:** 19115

**Dalbergia hirticalyx**
**Leguminosae**  
**EN B1+2bce**
Madagascar
Found in evergreen, seasonally dry forest between 900m and 1100m, this species is known only from a single forest remnant at Tsroanoamididy. The total population is selectively felled and the entire forest exploited.

**Assessor:** Du Puy, D.
**Refs:** 19073, 19115

**Dalbergia humbertii**
**Leguminosae**  
**EN B1+2ab**
Madagascar
A deciduous tree known only from two locations within a very restricted area north of Morondava. It covers an estimated 1500 km² (*EOO*) within a region of fragmented and declining native vegetation.

**Assessor:** Du Puy, D. & H. Labat
**Refs:** 12353

**Dalbergia hupeana var. laccifera**
**Leguminosae**  
**LR/nt**
Laos, Viet Nam
This species occurs along rivers and streams and on slopes in lowland and submontane moist forest in northwest Viet Nam and Laos. Forest fragmentation and shifting cultivation are the main reasons for the decline of this variety.

**Assessor:** Nghia, N.H.
**Refs:** 6125, 19091

**Dalbergia hutibertii**
**Leguminosae**  
**VU A1cd+2cd**
Madagascar
A tree restricted to deciduous, seasonally dry forest and woodland on a few isolated limestone massifs in west and north Madagascar. Although these areas are largely protected, selective felling still takes place and populations are declining. Protected areas in which the species is found are Ankarana Special Reserve and Bemeraha.

**Assessor:** Du Puy, D.
**Refs:** 19115

**Dalbergia intibucana**
**Leguminosae**  
**CR C2a**
Honduras
There is some doubt over the nomenclature of the species. It is confined to areas of medium-to high-elevation humid forest in Honduras.

**Assessor:** Nelson, C.
**Refs:** 13995, 14311

**Dalbergia latifolia**
**Leguminosae**  
**VU A1cd**
India (Andhra Pradesh, Karnataka, Sikkim, Tamil Nadu, Uttar Pradesh), Indonesia (Java), Nepal
Indian rosewood is principally a species of monsoon forests. Its timber is of high commercial value and wild populations are widely overexploited. The species is protected under the Indian Forest Act, the export of logs or sawn timber being banned, but considerable pressure continues to be exerted by illegal felling.

**Assessor:** Asian Regional Workshop
**Refs:** 6431, 8483, 11145, 14573, 16458, 17286, 19064

**Dalbergia lemurica**
**Leguminosae**  
**VU A1cd+2cd**
Madagascar
A tree confined to deciduous, seasonally dry forest on sand in western Madagascar. Although apparently widespread, most records are from near Morondava, where the habitat is being rapidly reduced and the trees are selectively felled.

**Assessor:** Du Puy, D.
**Refs:** 19115

**Dalbergia louvelii**
**Leguminosae**  
**EN A1cd+2cd**
Madagascar
A species confined to the drastically reduced lowland, humid forests of eastern Madagascar. Populations of this rare rosewood species are now severely fragmented and it is selectively felled for the export market.

**Assessor:** Du Puy, D.
**Refs:** 19115

**Dalbergia madagascariensis**
**Leguminosae**  
**VU A1cd+2cd**
Madagascar
A widespread species found along river margins in the humid, evergreen forest of north and east Madagascar. The extent of the forest is in decline and trees are selectively felled for the timber.

**Assessor:** Du Puy, D.
**Refs:** 19115
Dalbergia malacophylla  
Leguminosae  
EN B1+2bc  
Madagascar  
Known only from a single locality, this deciduous species is found in Mika forest in south-west Madagascar and covers an estimated 2000 km² (*EOO). The native forest in this restricted locality is undergoing gradual decline and selective exploitation for timber.  
Assessor: Du Puy, D. & H. Labat  
Refs: 12353

Dalbergia mammosa  
Leguminosae  
EN A1cd  
Viet Nam  
A tree scattered throughout broadleaved forest in central and southern Viet Nam up to 800m. The entire population has declined through overexploitation of the valuable timber. The species is now legally protected, but continues to be cut illegally.  
Assessor: Nghia, N.H.  
Refs: 848, 6125, 15357, 19091

Dalbergia maritima  
Leguminosae  
EN A1cd+2cd  
Madagascar  
A lowland tree restricted to humid, evergreen, coastal forest which has been almost completely destroyed. The remaining forests are seriously threatened by exploitation and clearing. Selective felling for export, fragmented populations and titanium mining activities threaten this endemic species.  
Assessor: Du Puy, D.  
Refs: 19115

Dalbergia melanoxylon  
Leguminosae  
LR/nt  
Angola, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Kenya, Malawi, Mali, Mozambique, Nigeria, Senegal, South Africa, Sudan, Tanzania, Uganda, Zambia, Zimbabwe  
This species occurs in a range of woodland habitats in at least 26 sub-Saharan countries. Its timber, mpingo, is widely used in the wood carving industry and in musical instrument manufacture. Levels of exploitation are very high and larger or suitably exploitable individuals are becoming increasingly scarce. There is cause for concern over genetic erosion in many populations. However, as a species there is no imminent threat of extinction.  
Assessor: World Conservation Monitoring Centre  
Refs: 6396, 7550, 13370, 13947, 14418, 16021, 17335

Dalbergia mollis  
Leguminosae  
LR/nt  
Madagascar  
This widely distributed tree inhabits lowland, deciduous forest and woodland in western Madagascar. It occurs in regions of rapidly declining fragmented forest. It is also selectively felled for the high-quality rosewood timber. Some populations lie within the boundaries of Ankarafantika Strict Nature Reserve.  
Assessor: Du Puy, D.  
Refs: 19115

Dalbergia monticola  
Leguminosae  
VU A1cd+2cd  
Madagascar  
A tree of evergreen, humid forest with an extensive distribution along the eastern escarpment of Madagascar, including areas with extensive forest cover. However, this much sought-after rosewood is selectively felled for export and mature trees are considered rare. Many localities receive protection in Perinet/Andasibe, Zahamena, and Ranomafana Protected Areas.  
Assessor: Du Puy, D.  
Refs: 19115

Dalbergia neoperrieri  
Leguminosae  
VU A1cd+2cd  
Madagascar  
This species occurs in the lowland, seasonally dry, deciduous forests of western Madagascar. Only a few isolated populations are known, mainly confined to specialised limestone habitats. The area of forest is declining and the species is selectively felled, although good populations are recorded at Bemaraha Reserve.  
Assessor: Du Puy, D.  
Refs: 19115

Dalbergia nigra  
Leguminosae  
VU A1cd  
Brazil (Bahia, Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)  
Brazilian rosewood is one of the most highly prized woods in Brazil. The timber has been harvested since colonial times for high-quality furniture and musical instruments. The highest concentrations of the species are located in hygrophilous forest on rich soils in southern Bahia and northern Espírito Santo, where rates of deforestation are great. Regeneration appears to be poor, possibly because of seed predation by rodents. It is found in a number of protected areas and it is listed on the official list of threatened Brazilian plants by IBAMA. Listed in *CITES Appendix I.  
Assessor: Yarty, N.  
Refs: 4506, 7980, 8815, 13947, 15539

Dalbergia normandii  
Leguminosae  
EN A1cd+2cd, B1+2abcde  
Madagascar  
A very rare species known from only two localities, Antalaha and the Isle Sainte Marie in north-east Madagascar, where it inhabits very fragmented humid, evergreen, coastal forest. This tree has been severely exploited for the excellent quality of its rosewood.  
Assessor: Du Puy, D.  
Refs: 19115

Dalbergia odorifera  
Leguminosae  
VU A1d  
China (Guangdong - Hainan)  
Confined to Hainan Island, the species is known only from stands of coppiced individuals in secondary forest and scrub up to 600m altitude. Trees have been heavily harvested for the timber and scented wood.  
Assessor: World Conservation Monitoring Centre  
Refs: 1660, 1818, 11847

Dalbergia oliveri  
Leguminosae  
EN A1cd  
Myanmar, Thailand, Viet Nam  
Scattered in dense evergreen and semi-deciduous forest up to 1200m, the species occurs within a restricted
Species Summaries

Dalbergia orientalis
Leguminosae  
VU A1cd+2cd  
Madagascar
A little-known species distributed through eastern Madagascar. This rare species natural habitat is evergreen humid forest between 100m and 1200m altitude. Such forest is decreasing and this species is selectively felled for timber. It is most frequently recorded around Fort Carnot, east of Fianarantsoa.
Assessor: Du Puy, D.
Refs: 19115

Dalbergia pelieri
Leguminosae  
LR/nt  
Madagascar
A widespread species of deciduous, seasonally dry, lowland forest on sand in western Madagascar. The species is still relatively common and less sought-after than other rosewoods because of its softer wood. It is mainly used for local construction purposes.
Assessor: Du Puy, D.
Refs: 19115

Dalbergia pervillei
Leguminosae  
LR/nt  
Madagascar
A tree occurring in broadleaved, deciduous, seasonally dry forest and woodland, usually between 50m and 300m altitude. This locally common species is very widespread in southern, western and northern Madagascar. However, the vegetation in this zone is fragmented and the species is selectively felled. Some localities fall within protected area boundaries.
Assessor: Du Puy, D.
Refs: 19115

Dalbergia pseudobaronii
Leguminosae  
VU A1cd+2cd  
Madagascar
Occurring in evergreen, humid forest between 50 and 1000m, the species is mainly recorded from northern Madagascar. Little is known about its frequency, but population reductions have been caused by selective felling for the high-quality timber, which is sold on national and local markets.
Assessor: Du Puy, D.
Refs: 19115

Dalbergia purpurascens
Leguminosae  
VU A1cd+2cd  
Madagascar
Widespread in east, west and south-west Madagascar, where it is locally common. However, this species produces a notably attractive high-quality rosewood which is selectively felled, seriously reducing populations. Some localities are in the protected areas of Ankaranana, Namoroka and Bemaraha.
Assessor: Du Puy, D.
Refs: 19115

Dalbergia retusa
Leguminosae  
VU A1acd  
Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama
A dry forest species of the Pacific side of Central America and Mexico. Exploitation as a timber is intense in areas where the species was formerly widespread are almost completely exhausted. This is most notable in Costa Rica. There is a limited occurrence of the species north of the canal in Panama and reasonably sized populations are reported to be found still in Mexico. The habitat has been exploited for 400 years and continuing reductions are caused through cattle ranching and burning. The species responds well to periodic burning.
Assessor: Americas Regional Workshop
Refs: 7980, 14717, 15037, 19179

Dalbergia sambesiaca
Leguminosae  
DD  
Mozambique
Assessor: Bandeira, S.
Refs: 5117, 7550

Dalbergia setifera
Leguminosae  
EN B1+2c  
Ghana
Endemic to Ghana, this species is confined to areas of dry forest at Sekondi. Habitat degradation has been extensive, although the species' preference for rocky sites lessens the threat of agricultural encroachment.
Assessor: Hawthorne, W.
Refs: 2773, 12061

Dalbergia simpsonii
Leguminosae  
VU D2  
Peru
A lowland forest species known only from the type collection taken from the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Dalbergia suaresensis
Leguminosae  
EN B1+2abcde  
Madagascar
A tree occurring in lowland deciduous forest in the northern tip of Madagascar, around Antsiranana. The extent of occurrence is very small, and the forest very fragmented within it. Selective felling of this species has drastically reduced the population.
Assessor: Du Puy, D.
Refs: 19115

Dalbergia tonkinensis
Leguminosae  
VU A1cd  
China (Guangdong - Hainan), Viet Nam
A tree known from scattered populations in areas of primary and secondary forest in Viet Nam and Hainan Island in China. In Viet Nam heavy exploitation of the beautiful timber has led to considerable population declines. Habitat loss on Hainan Island through logging has also been significant.
Assessor: Ban, N.T.
Refs: 848, 6125, 11530, 15357, 19060, 19091

Dalbergia tricolor
Leguminosae  
VU A1cd+2cd  
Madagascar
A tree occurring in lowland deciduous, seasonally dry forest and woodland. This uncommon species has a
distinct distribution. Selective felling in fragmented vegetation is causing a reduction in the total population.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia tsaratananensis**

Leguminosae  EN B1+2abcde
Madagascar

Few populations are known and all are confined to broadleaved, submontane, moist forest in the Tsaratanana Massif in Madagascar. Trees are selectively felled and the habitat is in rapid decline because of increasing cultivation.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia tsandalana**

Leguminosae  EN B1+2abcde
Madagascar

Very restricted, this poorly known species occurs around Soalala and Mahajanga in western Madagascar. The coastal, lowland, moist forest habitat of this species is very reduced and fragmented. This good-quality rosewood is selectively felled.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia urschii**

Leguminosae  EN B1+2abcde
Madagascar

A tree known from only one locality in lowland deciduous, seasonally dry forest near Antsiranana. This rare species is easily accessible, selectively felled and in an area of forest degradation and clearance.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia vaccinifolia**

Leguminosae  VU B1+2b
Kenya, Tanzania

A relatively wide-ranging species which occurs as a scardent shrub in places. It is known from patches of dry coastal forest in south-east Kenya, at unusually high altitudes in the Shimba Hills and at Tavu. The range extends south through coastal Tanzania to Zanzibar Island.

Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 7550

**Dalbergia viguieri**

Leguminosae  VU A1cd+2cd
Madagascar

A poorly known rosewood tree, restricted to broadleaved transition forest in north-east Madagascar. The species is known from only three rapidly diminishing sites, all of which are fragmented and isolated.

Assessor: Du Puy, D.
Refs: 19115

**Dalbergia xerophila**

Leguminosae  EN B1+2abcde
Madagascar

This species has a very restricted distribution in woodland and scrubland on sand, in south-east Madagascar. A shrubby species, not of export-quality rosewood, but the stems are very sought-after locally for construction and tool making. The vegetation in this area is very fragmented.

Assessor: Du Puy, D.
Refs: 12353, 19115

**Daniella cleanei**

Leguminosae  LR/nt
Cameroon, Gabon

Populations in Cameroon have become reduced with increasing exploitation of the timber. There are intact stands in Gabon, where large tracts of forest have remained undisturbed. This trend, however, is rapidly changing as almost all forest areas in Gabon are now under concession to timber companies.

Assessor: World Conservation Monitoring Centre
Refs: 14958, 19132

**Daniella oblonga**

Leguminosae  VU A1c
Benin, Cameroon, Equatorial Guinea (Bioko), Nigeria

A large tree from Atlantic forest. Populations have been recorded in Benin, on the Nigerian border at Oueme, in Ikom in Nigeria, extending into Cameroon and Bioko. Although information on the extent of the species range and its status is incomplete, the habitat is known to have declined severely.

Assessor: World Conservation Monitoring Centre
Refs: 2773, 7111, 11504

**Daphnopsis calcicola**

Thymelaeaceae  VU D2
Cuba

A small, endemic tree locally restricted to the deeply eroded limestone mountains called the mogotes complex in Viñales, Pinar del Rio Province.

Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

**Daphnopsis macrophylla**

Thymelaeaceae  VU B1+2c
Ecuador

A tree of montane and upper montane cloud forest in the Ecuadorean High Andes.

Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

**Daphnopsis pavonii**

Thymelaeaceae  VU D2
Peru

Known only from the type collected in the department of Junin, the species occurs in forest between 2500 and 3000m.

Assessor: World Conservation Monitoring Centre
Refs: 1984

**Dasylepis integra**

Flacourtiaceae  VU B1+2b
Kenya, Tanzania

An upland moist forest species known from the Taita Hills in Kenya, the West Usambara Mountains and Pare Mountains in Tanzania. There is also an unusual record of occurrence at Nou in Mbulu based on a single collection.

Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 8814
Dasymaschalon scandens
Annonaceae
Philippines
This tree is endemic to Palawan, found on forested slopes at low and medium altitudes. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Ref: 4986

Davidia involucrata var. involucrata
Cornaceae
China (Guizhou, Hubei, Hunan, Shaanxi, Sichuan, Yunnan)
One of the two varieties in this monospecific genus. It occurs in small pure stands scattered over a fairly wide range in broadleaved forest between 1000 and 2200m. It is a valuable ornamental tree and seed collecting coupled with high levels of habitat destruction, have caused the species to disappear from parts of its range.
Assessor: Sun, W.
Ref: 1818, 11847, 19055

Davidia involucrata var. vilmoriniana
Cornaceae
China (Guizhou, Hubei, Hunan, Shaanxi, Sichuan, Yunnan)
The more threatened of the two varieties in this monospecific genus. Occurring in montane or cloud forest with a distribution similar to as the type variant, populations appear to be less common. There is also a keener demand for the seeds and plants in the horticultural trade, and overcollection from wild populations has reduced natural regeneration severely.
Assessor: Sun, W.
Ref: 1818, 19055

Debregeasia ceylanica
Urticaceae
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka. This species was not recorded during the extensive National Conservation Review forest surveys conducted between 1991 and 1996, indicating that it is extremely rare or possibly extinct.
Assessor: World Conservation Monitoring Centre
Ref: 17195, 19112

Decaprops paucijuga
Rutaceae
Guatemala, Honduras
A scarce species, collected only once in Honduras from a locality in the Atlantic wet lowlands.
Assessor: Nelson, C.
Ref: 13995

Decayx esparae
Rutaceae
Honduras, Mexico
Assessor: Nelson, C.
Ref: 13995

Decayx macrophyllus
Rutaceae
Guatemala, Honduras
A species known from small populations, in lowland wet mixed forest.
Assessor: Nelson, C.
Ref: 13995

Deckenia nobilis
Palmae
Seychelles
A palm tree, reaching up to 40m in height, scattered in lowland forest up to 600m. Population numbers are declining as result of exploitation of the edible palm hearts. Some stands are naturally protected on rocky, inaccessible cliffs. The species is legally protected and seedlings, raised in nurseries, are distributed to the public for planting.
Assessor: Nature Protection Trust of Seychelles
Ref: 19025, 19118

Degeneria roseiflora
Degeneriaceae
Fiji
An endemic family of just two species. This species is endemic to Viti Levu, Vanua Levu and Taveuni. It is relatively abundant but being logged extensively.
Assessor: World Conservation Monitoring Centre
Ref: 1818, 19055

Degeneria vitensis
Degeneriaceae
Fiji
An endemic family of just two species. This is the rarer taxon, occurring on Vanua Levu and Taveuni in small, scattered populations.
Assessor: World Conservation Monitoring Centre
Ref: 1736, 5515, 6053, 18818

Dehaasia acuminata
Lauraceae
Indonesia (Java)
A lowland forest species known from populations near Pelabuhan Ratu and a formerly forested area near Pringombo. The current status of these populations is unknown but they are bound to be affected by the almost complete clearance of their habitat.
Assessor: World Conservation Monitoring Centre
Ref: 9078

Dehaasia chatacea
Lauraceae
Indonesia (Java)
Little is known about this species other than that it was collected only once before 1850, probably from forest in west Java. Given the extent of habitat clearance, it is very likely this species is now extinct.
Assessor: World Conservation Monitoring Centre
Ref: 9078

Dehaasia lancifolia
Lauraceae
Malaysia (Peninsular Malaysia)
This rare species is confined to the mountain forests of Perak and Pahang.
Assessor: Kochummen, K.M.
Ref: 8464, 19073

Dehaasia pugerensis
Lauraceae
Indonesia (Java)
This species has not been collected since the last century, when it occurred in lowland forest near Meru Betri National Park. Given the extent of habitat loss, it is very likely that the species is now extinct.
Assessor: World Conservation Monitoring Centre
Ref: 9078
Deinbollia longiacuminata
Sapindaceae LR/cd Democratic Republic of Congo
A species endemic to the Forestier Central in the region of Ofala.
Assessor: Ndiele, M.B.
Refs: 17185, 17951

Deinbollia molliscula
Sapindaceae VU A1c, B1+2c Côte d'Ivoire?, Ghana
Confined to wet evergreen forest in Upper Guinea, this species has experienced general losses in habitat caused by mining, logging and the establishment of commercial plantations.
Assessor: Hawthorne, W.
Refs: 12061

Deinbollia nyasica
Sapindaceae EN B1+2ac Malawi
A large tree, apparently known only from the type locality near Mboma stream in the Thyolo region. Most of the original forest in this area has been supplanted by tea estates and Eucalyptus plantations. In more recent years remaining forest areas have been steadily encroached upon for farming.
Assessor: World Conservation Monitoring Centre
Refs: 7058, 18965

Deinbollia rambaensis
Sapindaceae VU D2 Gabon
Apparently known only from Ramba, the species may be found to be more widespread as large areas have yet to be explored. The future of Gabon's forest is uncertain as it is now almost completely under concession to logging companies. The taxonomic status of the genus is held in question.
Assessor: World Conservation Monitoring Centre
Refs: 15790, 19043

Deinbollia saligina
Sapindaceae VU A1c, B1+2c Cameroon, Ghana, Nigeria
An understory species, a borderline shrub or tree. It occurs in rocky streamsides forest in a few localities in Nigeria and Cameroon and is recently recorded in Ghana. Populations in unprotected forest have been exposed to extensive logging and clearing for agriculture.
Assessor: World Conservation Monitoring Centre
Refs: 450, 8369, 11504

Delisea undulata ssp. kauaiensis
Campanulaceae EX USA (Hawaii)
One of three subspecies. It was known to occur in rainforest near Hanapepe Falls on Kauai, but no record of it has been made since 1895. The genus is endemic to the Hawaiian Islands.
Assessor: World Conservation Monitoring Centre
Refs: 19034, 19039

Delisea undulata ssp. niihauensis
Campanulaceae EX USA (Hawaii)
This subspecies was known only from a population occurring on the island of Niihau. It has not been collected since 1870. The genus is endemic to Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 19034, 19039

Delisea undulata ssp. undulata
Campanulaceae CR B1+2c, C2ab, D1 USA (Hawaii)
The only extant form of this species. It is represented by a single tree at Puuwaawaa on Hawaii. All other populations on West Maui, and on the slopes of Hulalai and Mauna Loa on Hawaii are believed extinct. The tree occurs in an area leased for ranching where it is under immediate threat from grazing, fire and also from invasive plants. Seeds have been propagated and planted out in the area, increasing the population to approximately 50 plants. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 19034, 19039

Delonix baccal
Leguminosae LR/nt Ethiopia, Kenya, Somalia
Occurring in Acacia–Commiphora bushland or riverine woodland, often on limestone, the species is confined to an area extending from central and southern Somalia to north-east Kenya and the Ogaden in Ethiopia. It is not common and, in places, the habitat is severely degraded by encroaching agriculture and overcutting for charcoal production.
Assessor: Thulin, M.
Refs: 1308, 1330, 6396, 8697, 10961, 13072, 18665

Delonix boiviniana
Leguminosae LR/nt Madagascar
A deciduous woodland and forest species that occurs throughout north, south and west regions of Madagascar. It is locally common and exists within protected areas that are not imminently threatened.
Assessor: Du Puy, D. et al.
Refs: 13856

Delonix brachycarpa
Leguminosae LR/nt Madagascar
This deciduous woodland species has a scattered and widespread distribution across west, south-west and south-east areas of Madagascar. Its distribution is similar to that of D. boiviniana and indeed it may not qualify as a separate species.
Assessor: Du Puy, D. et al.
Refs: 13856

Delonix decaryi
Leguminosae LR/nt Madagascar
Restricted to a narrow strip near the coast of south and south-west Madagascar, this deciduous woodland species is extensive but occurs in areas under increasing threat from charcoal production. It is highly utilised locally.
Assessor: Du Puy, D. et al.
Refs: 13856
Delonix floribunda
Leguminosae
Madagascar
A deciduous woodland species that occurs commonly in the south-west and west of Madagascar. Its main populations are in areas of the south-west that are being increasingly reduced for charcoal production.
Assessor: Du Puy, D. et al.
Refs: 13856

Delonix leucantha ssp. bemaruhensis
Leguminosae VU D2
Madagascar
Known only from a single herbarium specimen collected from Tsingy de Bemaraha in west Madagascar, this deciduous woodland species occurs within a reserve where exploitation is limited because of the area's remoteness.
Assessor: World Conservation Monitoring Centre
Refs: 13856

Delonix leucantha ssp. gracilis
Leguminosae VU B2c
Madagascar
Restricted mainly to south-west Madagascar, this deciduous woodland species is uncommon where it occurs and is threatened by charcoal burning.
Assessor: Du Puy, D. et al.
Refs: 13856

Delonix leucantha ssp. leucantha
Leguminosae VU D2
Madagascar
Known only from a small population in west Madagascar, this lowland deciduous woodland species occurs in a fairly inaccessible location within a reserve where it is not threatened. However, in a recent botanical survey it was not recorded.
Assessor: Du Puy, D. et al.
Refs: 13856

Delonix pumila
Leguminosae EN B1+2cde
Madagascar
Known only from two populations in south-west Madagascar, this species is restricted to areas of xerophytic scrubland on La Table Hill, with a smaller population on the plateau above St Augustin. Threats to the former population exist from road widening and the collection of mature individuals for the ornamental trade. Both populations are susceptible to fires and neither is protected.
Assessor: Du Puy, D. et al.
Refs: 13856

Delonix regia
Leguminosae VU B1+2c
Madagascar
This deciduous species is native to west and north Madagascar but is cultivated throughout this and many other tropical countries. The main native populations found around Antsiranana occur in areas that are threatened from charcoal production. It is used widely as an ornamental tree.
Assessor: Du Puy, D. et al.
Refs: 559, 1833, 13856

Delonix tomentosa
Leguminosae EN B1+2c
Madagascar
This deciduous species, previously known only from the type collected from the Ankara Plateau in the Boina, has recently been reported from a small population on the Ankarana Massif. Periodic fires on the Ankara Plateau are a threat. Its location is very inaccessible and no recent survey has been done.
Assessor: Du Puy, D. et al.
Refs: 13856

Delonix velutina
Leguminosae CR A2c
Madagascar
Known from only a few small populations in north Madagascar, the main locality of this rare deciduous species is Orange Peninsula, where it is severely threatened by charcoal burning. It has been recorded once from a protected site at Ankarana.
Assessor: Du Puy, D. et al.
Refs: 13856

Delpydra macrophylla
Sapotaceae VU D2
Gabon
From a genus of only two species, this tree is apparently confined to the Libreville area. Its range may prove to be wider as the forest is further explored. There is concern about the extent to which logging concessions have been made throughout the country.
Assessor: World Conservation Monitoring Centre
Refs: 14958, 15790

Dendropanax alberti-smithii
Araliaceae VU C2a
Colombia, Costa Rica, Panama
The species is scattered in areas of evergreen rainforest up to about 1200m, principally on the Atlantic side of Panama, and on the Pacific coast in Colombia. There are also reports of occurrences in Costa Rica. None of the populations appears to be large and they occur in areas which are largely unprotected and prone to logging.
Assessor: Mittré, M.
Refs: 16772

Dendropanax blakeanus
Araliaceae VU B1+2c
Jamaica
Apparently confined to John Crows Mountains, the species has been recorded in few localities, one above Ecclesdown and another at Proctor's Pool (a single individual), in *elfin* or moist forest on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 7980

Dendropanax cordifolius
Araliaceae CR B1+2c
Jamaica
The species has been collected from wooded limestone hillsides at the summit of Dolphin Head. Thorough searches for the species in 1989 failed to locate it. Apart from habitat declines and degradation, it is possible that Hurricane Gilbert in 1988 caused serious damage.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980
Dendropanax darianensis
Araliaceae
DD
Panama
The type collection for this species was supposedly taken from the province of Darfén but the herbarium specimen lacks details on the specific locality and the collection number. There has also been a claim that the specimen originated from Cabo Corrientes in Colombia.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Dendropanax filipes
Araliaceae
CR B1+2c
Jamaica
A small tree or straggling shrub, endemic to the Cockpit Country, where it occurs locally in woodland on limestone rocks. Originally recorded from four locations, attempts to find the species at three of these sites, Peckham Woods, Mango Tree Hill and Miss Laura's Hill, have failed. These areas suffer frequent cutting and agricultural encroachment.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Dendropanax grandiflorus
Araliaceae
CR B1+2c
Jamaica
The species is known from four localities. At two of them, Peckham and Douglas Castle Woods, attempts to find the species have failed. Another location on a ridge south of Sunbury is severely degraded by cutting and intensive cultivation. The last site, on jagged limestone on White Rock Hill, appears to harbour a population which is in good condition.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Dendropanax grandis
Araliaceae
CR B1+2c
Jamaica
A single sterile specimen is known from a ridge of woodland south of Sunbury, where the habitat has been severely degraded by cutting and intensive agriculture. Another population is known in forest in St Ann Parish.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Dendropanax hondurensis
Araliaceae
CR C2a
Honduras, Mexico
A tree of high-elevation cloud forest.
Assessor: Nelson, C.
Refs: 13995

Dendropanax lanceifolius
Araliaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
A small tree of hill rainforest, confined to the state of Perak.
Assessor: Chua, L.S.L.
Refs: 19073

Dendropanax marginiferus
Araliaceae
VU D2
Peru
A lowland forest species known only from the type collected in the department of San Martin in the Peruvian Andes.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Dendropanax nutans var. nutans
Araliaceae
LR/nt
Jamaica
One of the two varieties of a species which is endemic to the Blue Mountains and John Crow Mountains. It grows as a shrub or gnarled tree below 1700m on ridges, especially the Grand Ridge.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12564

Dendropanax nutans var. obtusifolius
Araliaceae
LR/nt
Jamaica
This variety occurs in montane forest at higher altitudes, above 1700m, in the Blue Mountains and John Crow Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12564, 17743

Dendropanax ovalifolius
Araliaceae
VU B1+2c
Jamaica
Recorded from the parishes of St Elizabeth and St James, populations occur locally in woodlands on limestone, between 400 and 610m.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 17743, 19085

Dendropanax pendulus
Araliaceae
LR/nt
Jamaica
A species which occurs as a shrub or small tree, mostly on ridge crests, especially the Grand Ridge in the Blue Mountains. It is locally common below 1850m.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12564

Dendropanax portlandianus
Araliaceae
VU B1+2c
Jamaica
A shrub or small tree which has only been recorded from Portland Parish in localised areas of moist mossy limestone forest between 450 and 600m.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Dendropanax sessiliflorus
Araliaceae
VU C2a
Costa Rica, Panama
A species of rainforest or cloud forest, occurring from low altitude to 2000m. Its range extends from Costa Rica through Panama to the Kunayala Indigenous Reserve, close to the border with Colombia. In Panama most of the collections originate from Chiriquí. Only a few populations are in protected areas and elsewhere the species is threatened by logging and burning.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772
**Species Summaries**

*Dendroseris swartzii*
Araliaceae
Jamaica
A taxon of doubtful validity, recorded from woodlands and thickets in wet areas in the John Crow Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

*Dendroseris berteriana*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 14140

*Dendroseris gigantea*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 14140

*Dendroseris litoralis*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. This species has been successfully cultivated and thrives in some places where it has been planted. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 7980, 14140

*Dendroseris macrantha*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 14140

*Dendroseris macrophylla*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 14140

*Dendroseris marginata*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 14140

*Dendroseris micrantha*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651

*Dendroseris nerifolia*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 7980, 14140

*Dendroseris pinnata*
Compositae
CHILE
A genus of palm-like pachycalyx trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands
are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.

**Assessor:** World Conservation Monitoring Centre

**Ref:** 3241, 5651, 14140

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**Dendroseris pruinata**

**Compositae**

**CR B1+2c**

Chile (Juan Fernández Is)

A genus of palm-like pachycaul trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.

**Assessor:** World Conservation Monitoring Centre

**Ref:** 3241, 5651, 14140

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**Dendroseris regia**

**Compositae**

**CR B1+2c**

Chile (Juan Fernández Is)

A genus of palm-like pachycaul trees, endemic to Juan Fernández. Most of the species in the genus are now reduced to a few individuals, largely through the effects of grazing by feral animals and spread of introduced weeds. More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.

**Assessor:** World Conservation Monitoring Centre

**Ref:** 3241, 5651, 14140

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**Dendrosicyos socotra**

**Cucurbitaceae**

**VU A2d**

Yemen (Socotra)

One of the very few species in Cucurbitaceae to grow to the stature of a tree, it is also notable for its characteristic swollen trunk. Trees are fairly common on the coastal plains and foothills, mainly on limestone but also in granite areas. The whole plant is cut and pulped for livestock fodder. Although current levels of use are sustainable, there is a potential risk of increasing livestock numbers placing populations under severe pressure.

**Assessor:** Miller, A.G.

**Ref:** 2354, 19083

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**Dennettia tripetala**

**Annonaceae**

**VU A1c, B1+2c**

Ghana, Nigeria

A small tree found in dry forest in Upper Guinea. Its habitat is most vulnerable to agricultural expansion and the effects of high population growth and fires.

**Assessor:** Hawthorne, W.

**Ref:** 8369, 11504, 12061

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**Desmostachys vogelii**

**Icacinaceae**

**VU A1c, B1+2c**

Cameroon, Ghana, Nigeria

A wet evergreen forest tree ranging from Ghana to Cameroon. The species habitat has declined because of mining and logging activities and the establishment of commercial plantations.

**Assessor:** Hawthorne, W.

**Ref:** 2773, 12061

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**Deutzianthus tonkienensis**

**Euphorbiaceae**

**LR/nt**

China (Guangxi, Yunnan), Viet Nam

A species which occurs sparsely in the lower storey of primary or slightly disturbed forest. Its distribution in China is restricted to a small area of south-east Yunnan and south-west Guangxi. In Viet Nam, populations are found in a number of northern provinces. Indiscriminate cutting and degradation of the habitat has caused declines in the mature population. It is the only species in the genus.

**Assessor:** World Conservation Monitoring Centre

**Ref:** 1818, 10013, 11847, 15357, 19055

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**Dialium bipindense**

**Leguminosae**

**LR/nt**

Cameroon, Gabon

A large canopy timber tree found in abundance in lowland rainforest in Kribi, Ebolowa and Bipindi in Cameroon and Ogooue and Njole in Gabon. The rates of harvesting of the timber are a primary concern throughout its range. Agricultural encroachment upon the habitat is also common.

**Assessor:** World Conservation Monitoring Centre

**Ref:** 12509, 12597, 15251, 15790

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**Dialium cochinchinense**

**Leguminosae**

**LR/nt**

Cambodia, Laos, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam

A large deciduous tree, highly valued for the timber. Occurring in various forest types throughout Indo-China south into Peninsular Thailand and Malaysia, the species is becoming rarer in many places because of overexploitation. In Viet Nam, it is listed as threatened. A protected population occurs in Kon Cha Kang Nature Reserve.

**Assessor:** World Conservation Monitoring Centre

**Ref:** 848, 11530, 14573, 15357

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**Dialium excelsum**

**Leguminosae**

**EN B1+2c**

Democratic Republic of Congo, Uganda

The species occurs in Ituri forest in DR Congo, where the species is fairly common but scattered. Elsewhere it is found uncommonly in small populations in a few localities in Uganda. General threats of mining, overcutting for charcoal production and expansive agriculture affect unprotected parts of the range.

**Assessor:** MUIENR

**Ref:** 7550, 9605, 9837, 14667

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**Dialium holzii**

**Leguminosae**

**VU B1+2b**

Kenya, Mozambique, Tanzania

A moist forest species which can occur in wetter or riverine areas of dry forests. It is found in remaining forest patches in east and south-east Tanzania into Mozambique. It has also been collected further north in
Species Summaries

Dichilanthe zeylanica
Rubiaceae
EN B1+2c
Sri Lanka
A tree confined to the lowland wet evergreen forests of south-west Sri Lanka. This species was recorded from only five forest localities during the extensive National Conservation Review forest surveys conducted between 1991 and 1996.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 17195, 19112

Dichrostachys dehiscens
Leguminosae
VU D2
Yemen (Socotra)
A fairly common small tree or shrub, occurring in submontane woodland. Leaves provide good livestock fodder, and trees are frequently damaged to obtain them. Although under no current threat, there is a potential for livestock numbers to increase and put the species at greater risk.
Assessor: Miller, A.G.
Refs: 19083

Dichrostachys kirkii
Leguminosae
LR/nt
Ethiopia, Somalia
A variable species known from central and southern Somalia extending to the eastern Ogaden in Ethiopia, where it occurs in dry deciduous bushland. In places the habitat is suffering from degradation caused by overcutting for charcoal production and by expanding agricultural activities.
Assessor: Thulin, M.
Refs: 1330, 18665

Dicraeopetalum capuroniana
Leguminosae
VU B1+2abc
Madagascar
Recorded from only a few scattered localities in a restricted area of southern Madagascar, this deciduous tree occurs on sand near the coast. Its range is estimated to be 16,000 km² (+EOO) in areas that are subjected to continuing degradation. It is selectively felled for timber, with little or no conservation measures in existence.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Dicraeopetalum mahafalensis
Leguminosae
VU B1+2abc
Madagascar
A xerophytic species restricted to the limestone Mahafaly Plateau of southern Madagascar, covering an estimated 18,000 km² (+EOO). The area is already fragmented and grazed and is continuing to be cleared. A small area is protected beside Lake Tsimanampetsotsa.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Dicraeopetalum stipulare
Leguminosae
VU A2cd
Ethiopia, Kenya, Somalia
There are reports of many trees in the Somali population, but they are threatened by overcollection for charcoal production and also by habitat degradation. The species is also known from a single record in the eastern Ogaden and one in an area of bushland on limestone.

limestone areas at Buda, Gongoni and Pangani in Kenya.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 10961

Dialium lopense
Leguminosae
LR/nt
Gabon
An endemic species to Lopé Forest Reserve, extending about 100km outside the reserve’s boundaries. Part of the range is under concession to logging companies and there is concern over future plans for intensive logging.
Assessor: World Conservation Monitoring Centre
Refs: 14958, 15790

Dialium orientale
Leguminosae
LR/nt
Kenya, Somalia, Tanzania
This species ranges along the coast in semi-evergreen forest or bushland from north-east Tanzania, through Kenya into southern Somalia. The fruits are edible and the wood is used to make dhow ribs. Much of the habitat is threatened with overcutting and clearing.
Assessor: Lovett, J. & G.P. Clarke
Refs: 2361, 3356, 3925, 7550, 18665

Dialium travancoricum
Leguminosae
CR B1+2c
India (Kerala)
A large tree of lowland forest, endemic to a small area in the Travancore range, occurring at Ponmudi and Ariyankavu. It appears to have become extremely scarce. No collections have been made in the last 100 years. Only small remnants of forest now exist within its former range.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

Dicellostyes axillaris
Malvaceae
CR D1
Sri Lanka
An extremely rare lowland tree. No records were made during the recent forest surveys by the National Conservation Review, but there is a possibility that a population is located in the dry zone, which was not extensively surveyed. The only cultivated specimen, located in the Peradeniya Botanical Garden, died in 1992.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 12129, 18796

Dichapetalum bocageanum
Dichapetalaceae
VU D2
São Tomé & Príncipe (São Tomé)
Little is known about the species. It has been collected twice. Large areas of the island remain to be explored, although most of the forest below 1550m was felled in the first half of the century.
Assessor: World Conservation Monitoring Centre
Refs: 2724

Dichapetalum costaricense
Dichapetalaceae
VU D2
Costa Rica, Nicaragua
A newly described species occurring in cloud forest in the Monte Verde and Heredia Biological Reserve in Costa Rica and from areas along Rio San Juan near Caño Chontalito in Nicaragua.
Assessor: World Conservation Monitoring Centre
Refs: 13112
north-east of Wajir in Kenya. It is the only species in the genus.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1308, 1330, 6396, 13072, 18665

**Dictyosperma album var. album**
Palmae
Mauritius
A palm tree of submontane forest known only from Florin Reserve in south-west Mauritius. Less than 10 mature individuals remain and there are no authenticated reports of natural regeneration. The trees are protected in a managed, weeded and fenced reserve. Seed production is monitored.

**Assessor:** Page, W.
**Refs:** 19118

**Dictyosperma album var. conjugatum**
Palmae
CR D1
Mauritius
Restricted to l'ile Ronde off the north-east coast of Mauritius, this palm tree has been reduced to a single wild individual. Two trees survived until 1994, when a cyclone killed one of them. Seeds were obtained from the tree before it died and 25 offspring were raised. These individuals have been introduced to a 25ha island reserve called lle aux Aigrettes. The remaining wild tree produced seeds for the first time in December 1996.

**Assessor:** Page, W.
**Refs:** 19118

**Dicypellium caryophylaceum**
Lauraceae
VU A1cd
Brazil (Amazonas, Maranhão, Pará)
Most recent collections have come from non-flooded forest in Tapajós in Pará. In the past, the species was known from Maranhão further north. Intense exploitation of the bark to make essential oils has caused the species to become rare; there is 95.5% eugenol contained in the oil. The epithet is commonly spelled caryophyllatum.

**Assessor:** Pedralli, G.
**Refs:** 7144, 7145, 15539, 16123, 19142

**Didelotia iade**
Leguminosae
LR/nt
Benin, Cameroon, Côte d'Ivoire, Ghana, Liberia, Nigeria, Sierra Leone, Togo
This species ranges from Sierra Leone to Cameroon but it is confined to wet evergreen and swampy forest. It occurs commonly in parts of its range but the effects of mining, logging and commercial forestry activities have caused significant losses in the extent of its occurrence.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 7550, 8369, 12061

**Didelotia unifoliata**
Leguminosae
LR/nt
Cameroon, Côte d'Ivoire?, Democratic Republic of Congo, Gabon, Ghana, Liberia?, Sierra Leone?
A relatively wide-ranging species, occurring from DR Congo to Ghana and possibly further west. It is confined and scarce in wet evergreen forest, which has experienced general declines in its extent because of mining, logging and commercial forestry activities.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2773, 5595, 8369, 12061, 12597, 19092

**Dillenia ferruginea**
Dilleniaceae
VU D2
Seychelles
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 9859, 17229

**Dillenia fischeri**
Dilleniaceae
VU A1cd
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4919, 5651, 12937

**Dillenia luzoniensis**
Dilleniaceae
VU A1cd
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2072, 4919, 5651

**Dillenia megalantha**
Dilleniaceae
VU A1d
Philippines
A timber species of primary lowland forest.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4919, 11145, 12937

**Dillenia philippinensis**
Dilleniaceae
VU A1d
Philippines
An evergreen tree which occurs in primary and secondary forests throughout the Philippines. It provides a useful timber and the fruits are edible and also have a medicinal value.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4919, 11145, 12937

**Dillenia reifferscheidtia**
Dilleniaceae
VU A1d
Philippines
A species of primary and secondary lowland forests. It is exploited for its timber and edible fruits.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4919, 11145, 12937

**Dillenia triguetra**
Dilleniaceae
CR B1+2cd
Sri Lanka
A tree restricted to the lowland rainforests of south-west Sri Lanka. This species was scattered but fairly widespread in the lowland rainforests according to a survey in the late 1980s, but it was not recorded at any of the forest sites during the extensive National Conservation Review forest surveys conducted between 1991 and 1996, suggesting that this species is either extremely rare or possibly extinct.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 17195, 19112
**Diospyros barteri**
Ebenaceae  
VU B1+2c
Cameroon, Ghana, Nigeria
A species which can be found in a variety of moist forest formations in populations on either side of the Dahomey Gap. General forest loss has been high in all three countries where it is found because of logging, mining, oil exploration and commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 6197, 11504, 12061

**Diospyros benstonei**
Ebenaceae  
CR C2b
Papua New Guinea
Apparently confined to Misima Island in Milne Bay Province, this small rare tree occurs in streamside rainforest in a gorge. The population is threatened by mining and cutting for local use.
Assessor: Eddowes, P.J.
Refs: 19114, 19147

**Diospyros blancoi**
Ebenaceae  
VU A1cd
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 10938

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**Dimocarpus longan**
Sapindaceae  
LR/nt
China (Guangdong - Hainan)
One of the common and important components of low-elevation monsoon forests in the south-west of Hainan Island. Large-scale logging has taken out a considerable proportion of the population but trees are resprouting where allowed.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

**Dimorphocalyx beddomei**
Euphorbiaceae  
EN B1+2c
India (Kerala, Tamil Nadu)
An understory tree, recorded only from the Agastymalai range in submontane evergreen forest. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000 km² of forest is now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Diospyros acuminata**
Ebenaceae  
VU A1c
Sri Lanka
A tree scattered in the lowland rainforests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

**Diospyros acuta**
Ebenaceae  
EN B1+2c
Sri Lanka
A very rare tree restricted to the lowland wet evergreen forests of south-west Sri Lanka. This species is known from four localities: Kanneliya, Kottiwa, Badullakele and Dediyagala.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

**Diospyros albiflora**
Ebenaceae  
VU A1c
Sri Lanka
A tree confined to the lowland rainforests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

**Diospyros amaniensis**
Ebenaceae  
VU B1+2bc
Kenya, Tanzania
A coastal forest species, often a shrub, known from populations in the Shimba Hills in Kenya and in north-east Tanzania. It is closely related to the West African species *D. gabunensis*.
Assessor: Lovett, J. & G.P. Clarke
Refs: 556, 3356, 6396

**Diospyros angulata**
Ebenaceae  
CR D1
Mauritius
A species now known from just a single female tree in lowland forest at Magenta. The tree fruited for the first time in five years in 1996 and again in 1997, which suggests there is a male individual in the vicinity. Neither natural regeneration nor ex situ propagation have been successful. The species is believed to have been a popular timber in colonial times.
Assessor: Page, W.
Refs: 1411, 9120, 16426

**Diospyros atrata**
Ebenaceae  
VU B1+2c
India (Kerala, Tamil Nadu), Sri Lanka
In Sri Lanka, a recent survey identified a total of three populations, occurring in wet evergreen forests in Ratnapura and Kalutara Districts. In India populations are restricted to submontane forest at the southernmost end of the Western Ghats, including the Agastymalai Hills, where forest has declined in extent but is now protected within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 12129, 15431, 18796, 19112, 19144

**Diospyros attenuata**
Ebenaceae  
EN B1+2c
Sri Lanka
This tree was found to occur in only three forest reserves during the extensive National Conservation Review forest surveys.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796, 19112

**Diospyros barberi**
Ebenaceae  
VU B1+2c
India (Kerala, Tamil Nadu)
One of the trees endemic to the Agastymalai Hills. Large parts of the forest here have been affected by fires, grazing, the incursion of commercial plantations and cutting for fuelwood. However, almost 1000 km² of forest are relatively well protected within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 19144

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**Species Summaries**

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177
Diospyros blumutensis
Ebenaceae VU D2
Malaysia (Peninsular Malaysia)
A tree known from a single collection taken from hill forest on Gunung Belumut, Johore. The area is classified as a protected forest.
Assessor: World Conservation Monitoring Centre
Refs: 19073

Diospyros bouissoniana
Ebenaceae VU B1+2c
Mauritius
A relatively common species of upland and mid elevation forest in the south-west and occasionally in the east and northern ranges. The spread of invasive species and habitat degradation are causing considerable concern. The species responds poorly to disturbance and appears to be regenerating insufficiently.
Assessor: Page, W.
Refs: 1411, 9120, 16426

Diospyros capricornuta
Ebenaceae DD
Tanzania
Assessor: Lovett, J. & G.P. Clarke
Refs: 556, 3356

Diospyros celebica
Ebenaceae VU A1cd
Indonesia (Sulawesi)
Occurring in lowland rainforest, the species is found only in central and northern Sulawesi. It has been heavily exploited for its fine streaked ebony timber which is used for carving, inlay, furniture and musical instruments. The number of mature trees has declined and large parts of the habitat have been converted to crops. Felling of the species is now only allowed by quota but continues illegally.
Assessor: World Conservation Monitoring Centre
Refs: 4329, 11145, 12397, 19048, 19065

Diospyros chaetocarpa
Ebenaceae VU A1c, B1+2c
Sri Lanka
A rare tree endemic to the lowland wet evergreen forests of south-west Sri Lanka. In the extensive surveys conducted for the National Conservation Review, this species was discovered in six localities in Galle and Kalutara Districts.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 19112

Diospyros chrysophyloos
Ebenaceae EN B1+2c, C2a
Mauritius
A small tree found extremely rarely in lowland to intermediate evergreen forest in the south-west, east and northern mountain ranges. The largest populations occur at Bel Ombre and at Ferney, Mount Creole. Natural regeneration is rarely observed and there are significant pressures caused by the spread of invasive species and habitat degradation.
Assessor: Page, W.
Refs: 1411, 9120, 16426

Diospyros conformis
Ebenaceae VU B1+2c
Malaysia (Peninsular Malaysia)
Known only from a single collection, this tree of lowland forest was collected from Lenggong, Perak. It is hoped that the species will be found in Piah Forest Reserve.
Assessor: Chua, L.S.L.
Refs: 19073, 19182

Diospyros crassiflora
Ebenaceae EN A1d
Cameroon, Central African Republic, Congo, Democratic Republic of Congo, Gabon, Nigeria
Virtually all large trees of this lowland rainforest species have been felled for the ebony wood, except perhaps in the most remote parts of its range.
Assessor: African Regional Workshop
Refs: 2362, 2773, 6718, 17408

Diospyros crumenata
Ebenaceae EN B1+2c
Sri Lanka
This species was discovered in only two forest localities during the extensive surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 19112

Diospyros daemona
Ebenaceae VU D2
Malaysia (Peninsular Malaysia)
A lowland forest tree, known from four collections from northern Peninsular Malaysia. Populations may be conserved in the permanent forest reserves of Kedah, Kelantan and northern Pahang.
Assessor: World Conservation Monitoring Centre
Refs: 19073

Diospyros ebenoides
Ebenaceae EN B1+2c
Sri Lanka
In the extensive surveys conducted for the National Conservation Review, this tree was found in only three forest localities in Kandy and Ratnapura Districts.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17759, 19112

Diospyros eburnum
Ebenaceae DD
India, Sri Lanka
An understory tree of dry evergreen forests. Since ancient times the species has been renowned for its black wood and it is still regarded as the best commercial black ebony. Both India and Sri Lanka have banned the export of this species.
Assessor: Asian Regional Workshop
Refs: 11145, 15431, 16031

Diospyros egrettarum
Ebenaceae CR B1+2c
Mauritius
Once a dominant coastal ebony, the species is now reduced to fewer than 10 individuals on the mainland and a larger viable population on l'Ile aux Aigrettes, a coral island off the east coast. It was heavily harvested in the past for timber and firewood. The trees on l'Ile aux Aigrettes are now benefiting from a number of protective measures, such as the eradication of exotic plants and rats.
Assessor: Page, W.
Refs: 1411, 2000, 9120, 16426
**Diospyros elegan**
Ebenaceae
Malaysia (Peninsular Malaysia)

A rare tree of Perak and Pahang found in lowland and hill forest up to 700m. The habitat is threatened by agricultural expansion and other developments, but it is possible the species is conserved within the permanent forest reserves.

**Assessor:** Kochummen, K.M.
**Refs:** 19073

**Diospyros fastidiosa**
Ebenaceae
New Caledonia

Apparently only collected once in 1972 on the eastern slopes of Mont Aoupénié in an area of humid forest at 600m occurring on an unusual and highly restricted substrate.

**Assessor:** Jaffré, T. et al.
**Refs:** 10351, 12630

**Diospyros feliciana**
Ebenaceae
Guinea

Endemic to Guinea, the species is confined to remaining areas of upland forest.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 10909

**Diospyros gambleana**
Ebenaceae
Malaysia (Peninsular Malaysia)

A rare species, confined to hill forest in the Keledang range, in the state of Perak. Only two collections are known, both of them from the same locality. The forest in the region is classified as protected.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19073

**Diospyros gillisonii**
Ebenaceae
Papua New Guinea

A tree scattered throughout the small coral islands in the Kiribati (To briant) Group and the Louisiade Archipelago, where it occurs in beach scrub on coral limestone at sea level. It is heavily exploited by the local people for its black heartwood, which is used in carvings, native hair combs and ceremonial pieces. Very few mature trees, if any, remain.

**Assessor:** Eddowes, P.J.
**Refs:** 19114

**Diospyros greenwayi**
Ebenaceae
Kenya, Somalia, Tanzania

A shrub or tree confined to remaining patches of forest. Occurrences in Kenya are recorded from the Shamba Hills, Buda and Witu. It is known from a number of forest reserves in Tanzania and is apparently newly found in Somalia in the Jubbada Hoose region. The demand for agricultural land exerts heavy pressure throughout the range.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 556, 2361, 3356, 6396

**Diospyros hemithea**
Ebenaceae
Mauritius

A species, probably a timber in the distant past, now confined to a few sites of lowland evergreen forest in the south-west and also recently recorded on the east coast at Mont Brisée. The total population is estimated to be less than 60, although only 42 trees are known at present. No regeneration is apparent. There are plans to plant trees from cultivation into managed reserves.

**Assessor:** Page, W.
**Refs:** 1411, 4506, 9120, 16426

**Diospyros hirsuta**
Ebenaceae
Sri Lanka

Endemic to Sri Lanka, this species is scattered in the lowland wet evergreen forests.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 15431, 17195

**Diospyros impolita**
Ebenaceae
New Caledonia

Confined to sclerophyllous forest, the species occurs in a few locations on the west coast. The habitat is fragmented and much reduced in extent, largely because of agricultural activities, grazing and fires.

**Assessor:** Jaffré, T. et al.
**Refs:** 4492, 10351, 12630

**Diospyros insidiosa**
Ebenaceae
Malaysia (Peninsular Malaysia)

A lowland forest tree confined to Pulau Tioman. Only two collections have been made. The island is being developed into a resort and the chances of the conserving the species are remote.

**Assessor:** Kochummen, K.M.
**Refs:** 19073

**Diospyros insularis**
Ebenaceae
Papua New Guinea (Bismarck Archipelago, North Solomons), Solomon Islands (South Solomon)

A tree of primary lowland rainforest found in only a few localities in the Solomon Islands and New Ireland of the Bismarck Archipelago. Overexploitation and logging have resulted in the species becoming highly endangered, possibly critically endangered.

**Assessor:** Eddowes, P.J.
**Refs:** 19114

**Diospyros johorensis**
Ebenaceae
Malaysia (Peninsular Malaysia)

Known only from a single collection, this lowland forest tree occurs in Gunung Panti Forest Reserve, which is now considered a conservation area by the Johore Forest Department.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19073

**Diospyros katendei**
Ebenaceae
Uganda

At present the species is known from a single population of about 20 trees in upland evergreen rainforest in central Kasooha-Kitomi. The area is designated as a forest reserve and timber is being extracted.

**Assessor:** Katende, A.B.
**Refs:** 5525, 5654
**Diospyros kingii**
Ebenaceae  
Malaysia (Peninsular Malaysia)
A species confined to hill forest in Perak, where it has been collected three times. It is thought that the species receives a degree of protection within permanent forest reserves.
*Assessor: World Conservation Monitoring Centre*
*Refs: 19073*

**Diospyros kotoensis**
Ebenaceae  
Taiwan
An endemic to Lanyu Island off the south-east coast of Taiwan. It occurs in lowland broadleaved forest and has attracted considerable attention as an ornamental tree. The populations are unprotected and under some threat from encroaching settlements and agriculture.
*Assessor: Pan, F.J.*
*Refs: 3295, 19050*

**Diospyros leucoceras**
Ebenaceae  
Mauritius
A relatively common species in lowland forests in the south-west and occasionally found in the eastern mountain ranges. Natural regeneration is poor and appears to be hampered by the spread of exotic plants and predation of the seeds by monkeys.
*Assessor: Page, W.*
*Refs: 1411, 9120, 16426*

**Diospyros littorea**
Ebenaceae  
Papua New Guinea
This tree is endemic to Motupore Island, where it is found in scrub vegetation. It was not found in the 1990 expedition to Motupore Island. It is a segregate species of the widespread *D. ferrea*.
*Assessor: World Conservation Monitoring Centre*
*Refs: 19140*

**Diospyros lobinopsis**
Ebenaceae  
Papua New Guinea
The only recorded occurrence of this tree is located in open hillside forest at Usino near the Bigei River in Madang Province. The population may no longer exist.
*Assessor: Eddowes, P.J.*
*Refs: 19114*

**Diospyros macrocarpa**
Ebenaceae  
New Caledonia
Relatively widespread on the Grand Terre and also occurring on Ile des Pins, the species has been found in diverse habitats including humid forest and degraded maquis on ultramafic or schist substrates.
*Assessor: Jaffré, T. et al.*
*Refs: 10351, 12630*

**Diospyros magogoana**
Ebenaceae  
Tanzania
The range of the species now appears to be confined to undisturbed areas within the Rondo Forest Reserve (140km²). Activities in the past resulting from logging and planting commercial timbers, shifting cultivation and wood collection have caused extensive damage to the forest. Forest management operations are now discouraging any illegal encroachment or exploitation.
*Assessor: Lovett, J. & G.P. Clarke*
*Refs: 556, 5654, 16796*

**Diospyros margaretiae**
Ebenaceae  
New Caledonia
A species known from two small populations. At the type locality in Kouanou it occurs commonly in the rainforest understorey on serpentine soils. In the second location at Petit Koum it occurs with *Agathis lanceolata* in rainforest on granite.
*Assessor: Jaffré, T. et al.*
*Refs: 10351, 12630*

**Diospyros melanoida**
Ebenaceae  
Mauritius
A likely timber of past centuries this species is commonly found in dry deciduous lowland forest mostly in the south-west but also on the east coast and eastern mountain ranges. Regeneration appears to be poor because of the invasion of exotic plants and also exotic animals which destroy the seeds. In many places the populations are reduced to scattered individuals or small subpopulations.
*Assessor: Page, W.*
*Refs: 1411, 9120, 16426*

**Diospyros minimimolia**
Ebenaceae  
New Caledonia
Several scattered localities occur on the west coast confined to sclerophyllous forest. This habitat is fragmented and massively reduced in extent because of the effects of fire, grazing and habitat clearance.
*Assessor: Jaffré, T. et al.*
*Refs: 4492, 10351, 12630*

**Diospyros molissima**
Ebenaceae  
Indonesia (Irian Jaya)
Confining to Adi Island in Kaimana District, this tree occurs in rainforest below altitudes of 15m.
*Assessor: Eddowes, P.J.*
*Refs: 19114*

**Diospyros moonii**
Ebenaceae  
Sri Lanka
Apparently restricted to a small conservation forest reserve in Matara District, only a single tree was found in the comprehensive forest surveys for the National Conservation Review.
*Assessor: World Conservation Monitoring Centre*
*Refs: 15431, 18796, 19112*

**Diospyros mun**
Ebenaceae  
Laos, Viet Nam
A small, slow-growing tree endemic to Viet Nam, although there are reports of occurrences in Laos. Stands are found in the northern provinces of Ha Giang, Yuen Quang, Lang Son, Hoi Binh, Ha Tinh and Quang Binh, where the species occurs on limestone mountains below 800m, and in the south in Cam Thinh Dong and Cam Thinh Tay communes. The glossy black timber is highly valued and has been in great demand. Export is now...
banned. Populations in the wild are much reduced, but some are protected in areas, such as Cuc Phuong National Park.

Assessor: Nghia, N.H.
Refs: 848, 11530

**Diospyros nebulosa**
Ebenaceae
VU D2
New Caledonia
The species appears to be known from just two collections taken from cloud forest on Mont Panié. The area is given some protection as a special botanical reserve.

Assessor: Jaffré, T. et al.
Refs: 10351, 12630

**Diospyros neraudii**
Ebenaceae
VU B1+2cde
Mauritius
A small tree of moist evergreen submontane forest confined to the south-west and a few localities in the east. Regeneration is observed to be poor, especially in areas to which exotic species have spread.

Assessor: Page, W.
Refs: 1411, 9120, 16426

**Diospyros nodosa**
Ebenaceae
CR C2a, D1
Mauritius
The population is estimated to be very small, possibly numbering less than 10 individuals. The species occurs in upland moist evergreen forest in the mountains in the south-west and has also recently been found in northern and eastern ranges. Regeneration is rarely apparent and is adversely affected by the spread of exotic invasives, especially in the north. The species has not yet become established in ex situ collections.

Assessor: Page, W.
Refs: 1411, 9120, 16426

**Diospyros nummularifolia**
Ebenaceae
EN B1+2c
Sri Lanka
A dry zone tree found in only five forest localities during the extensive forest surveys for the National Conservation Review.

Assessor: World Conservation Monitoring Centre
Refs: 19112

**Diospyros oblongifolia**
Ebenaceae
VU A1c
Sri Lanka
A tree found in 12 forest localities during the National Conservation Review.

Assessor: World Conservation Monitoring Centre
Refs: 15431, 19112

**Diospyros occulata**
Ebenaceae
DD
Tanzania
This species is almost indistinguishable from the West African species *D. troupinii*.

Assessor: Lovett, J. & G.P. Clarke
Refs: 556, 3356

**Diospyros oppositifolia**
Ebenaceae
EN B1+2c
Sri Lanka
An uncommon species of lowland rainforest in south-west Sri Lanka. Until recently, it was known only from Hinidumkanda Biosphere Reserve. Single collections were made in both Sinharaja Biosphere Reserve and in Kanneliya Forest Reserve. The forest on the south-eastern slopes of Hinidumkanda is threatened by encroaching slash-and-burn cultivation and illegal logging, resulting from increases in human population numbers in the surrounding area.

Assessor: World Conservation Monitoring Centre
Refs: 15431, 16916, 16943, 17195

**Diospyros perplexa**
Ebenaceae
VU B1+2c
New Caledonia
A shrub or small tree confined to five or six localities of sclerophyllous forest in the west of Grand Terre. The habitat is fragmented and massively reduced because of the effects of fire, grazing and agricultural encroachment.

Assessor: Jaffré, T. et al.
Refs: 4492, 10351, 12630

**Diospyros philippinensis**
Ebenaceae
EN A1c, B1+2abc
Indonesia? (Java?), Malaysia?, Philippines
A timber species occurring in primary lowland forest up to 200m. In the Philippines exploitation of the ebony has caused the species to become rare; very little lowland forest remains and records of Philippine ebony are often from forest fragments smaller than 30 km². Despite a ban on log exports which came into force in 1989, there have been reports of an illegal trade.

Assessor: Asian Regional Workshop
Refs: 11145, 12888, 19066

**Diospyros pterocalyx**
Ebenaceae
VU B1+2cde
Mauritius
An occasional species of upland moist evergreen forest found mainly in the south-west, but also in the eastern and northern ranges. As field surveys are carried out, the species continues to be found in new locations. Regeneration is not good and is hampered, especially in the north, by invasive plants.

Assessor: Page, W.
Refs: 1411, 9120, 16426

**Diospyros pulgarensis**
Ebenaceae
VU B1+2c
Philippines
A species of primary lowland forest in Palawan, ascending to 500m. The main island is declared a biosphere reserve.

Assessor: World Conservation Monitoring Centre
Refs: 4986, 5651

**Diospyros pustulata**
Ebenaceae
VU B1+2c
New Caledonia
A species restricted to sclerophyllous forest on the west coast of Grand Terre. The habitat is fragmented and massively reduced in extent because of the effects of fires, grazing and encroaching agriculture. It is a conspicuous species and derives its names from blisters on its leaves.

Assessor: Jaffré, T. et al.
Refs: 4492, 10351, 12630
**Diospyros quaesita**  
Ebenaceae  
Sri Lanka  
Endemic to Sri Lanka, this large tree occurs infrequently in lowland wet evergreen forest and in dry forest. The species is threatened by overexploitation of its valuable variegated timber and by poor regeneration. In addition, the heartwood is used medicinally to heal wounds. It was found at 25 forest sites during the National Conservation Review forest surveys.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195, 19110, 19112

**Diospyros revaughanii**  
Ebenaceae  
Mauritius  
Generally found on exposed ridges and plateaux, the species is relatively common where it occurs in the south-west, less so in the northern ranges. Although the trees fruit regularly and in abundance, regeneration appears to be poor and populations are declining where the habitat is susceptible to degradation.  
**Assessor:** Page, W.  
**Refs:** 1411, 9120, 16426

**Diospyros rheophylica**  
Ebenaceae  
Sri Lanka  
A tree apparently restricted to a single locality of forest in Ratnapura District. Only two trees were discovered during the extensive fieldwork carried out for the National Conservation Review.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17759, 19112

**Diospyros riajoe**  
Ebenaceae  
Mexico (Hidalgo, Tamaulipas, Veracruz)  
The largest concentration of the species is confined to cloud forest on steep scarp slopes in the Sierra de Tantima and Plan de las Hayas in Veracruz. There a few individuals existing in Tamaulipas and Hidalgo. The population at the type locality in the Sierra de Chiconquiaco is now extinct and less than 500 individuals are suspected to exist in the two remaining Veracruz localities. The decline has taken place largely because of deforestation and agricultural expansion. There is no evidence of regeneration in one of the localities and attempts at propagation have so far failed.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 81, 10480, 19206

**Diospyros rumphii**  
Ebenaceae  
Indonesia (Moluccas, Sulawesi)  
A lowland forest tree exploited as an important source of black and streaked ebony.  
**Assessor:** Asian Regional Workshop  
**Refs:** 4734, 11145

**Diospyros selangorensis**  
Ebenaceae  
Malaysia (Peninsular Malaysia)  
Found in montane forest on Gunong Ulu Semongkok in Selangor, this tree has been collected only once.  
**Assessor:** Kochummen, K.M.  
**Refs:** 19073

**Diospyros seychellaranum**  
Ebenaceae  
Seychelles  
Occurring on Mahé, Praslin, Silhouette and Felicite, this tree or shrub does not have a uniform distribution but exists in numerous small populations in forest on exposed rocky outcrops or in well-drained places. Regeneration appears to be fairly good and some populations are protected in national parks. Branches are frequently cut for the leaves and flowers, which have a medicinal value.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9859, 16212, 17229, 19023

**Diospyros shimbaensis**  
Ebenaceae  
Kenya, Tanzania  
In Kenya this small tree occurs in moist semi-evergreen forest in the Shimba Hills National Reserve, Gongoni Forest Reserve and Budu Mafinsisi Forest Reserve. Habitat loss and degradation has caused population declines. More information is needed on the populations in Zaraninge forest in Bagamoyo and in Mrora forest on Mafia Island, Tanzania.  
**Assessor:** CAMP Workshop in Kenya  
**Refs:** 556, 3356, 5654, 6396, 19181

**Diospyros tessellaria**  
Ebenaceae  
Mauritius  
Once heavily harvested as a timber, this canopy tree forms a dominant component of lowland evergreen forest and upland rainforest in the south-west and eastern mountain ranges. The habitat is declining and regeneration is poor in areas which are degraded.  
**Assessor:** Page, W.  
**Refs:** 1411, 9120, 16426

**Diospyros thwaitesi**  
Ebenaceae  
Sri Lanka  
A species confined to the lowland wet evergreen forests of south-west Sri Lanka. During the extensive forest surveys conducted for the National Conservation Review, the species was found in six forest localities including the Sinharaja and Haycock Biosphere Reserves.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195, 19112

**Diospyros trichophylla**  
Ebenaceae  
India, Sri Lanka  
A rare tree, restricted to the lowland wet evergreen forests of south-west Sri Lanka. This species was found in nine localities during the extensive fieldwork carried out for the Sri Lankan National Conservation Review.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1065, 15431, 17195, 19112

**Diospyros trisulca**  
Ebenaceae  
New Caledonia  
Only a single location is known where the species occurs in dense forest on Mont Mandjélia at 600m. Of the New Caledonian taxa in the genus, this species is noted for its unique flower form.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 4492, 10351, 12630
**Diospyros vaccinioides**

Ebenaceae. CR A1ad+2bd, B1+2abc, C1+2ab, D1

China (Guangdong), Hong Kong, Taiwan

A heavily-exploited ornamental species. Overcollecting in Taiwan, has led to the complete absence of mature trees in the wild. A population of unproductive individuals, however, is believed to exist on a wooded hillside in Fengkang. Populations are also recorded from Chuhai and Huiyang in China, and Hong Kong.

Assessor: Lu, S.Y. & F.J. Pan

Ref:s: 3295, 6469, 8142, 19050, 19051

**Diospyros veillonii**

Ebenaceae. CR D1

New Caledonia

A shrub or small tree known from only about 20 plants at Gadji, near Paia. It is confined to sclerophyllous forest, which has been in serious decline for fire, grazing by cattle and deer and vegetation clearance.

Assessor: Jaffré, T. et al.

Refs: 4492, 10351, 12630

**Diospyros wajirensis**

Ebenaceae. LR/nt

Kenya, Somalia

Occurring in dry bushland, this small tree is restricted in range from north-eastern Kenya to neighbouring Somalia. It is very common near Wajir and is locally used for making walking sticks. The habitat is threatened with degradation through grazing and overcutting for charcoal production.

Assessor: Thulin, M.

Refs: 6396, 18665

**Diospyros walkeri**

Ebenaceae. VU A1c

Sri Lanka

A tree confined to the lowland rainforests of south-west Sri Lanka. This species was discovered in 20 localities during the extensive National Conservation Review forest surveys.

Assessor: World Conservation Monitoring Centre

Refs: 15431, 17195, 19112

**Diphasiopsis fadenii**

Rutaceae. VU B1+2c

Kenya

A rarely collected species of moist forest or thickets on rocky hills. Populations are recorded from Chyulu, Mbololo, Kasigau, near Murka and Ngulia. There are only two species in the genus.

Assessor: World Conservation Monitoring Centre

Refs: 1308, 6396

**Diplodiscus hookerianus**

Tiliaceae. EN B1+2c

Malaysia (Peninsular Malaysia)

A very rare tree known only from a single herbarium specimen which was collected in lowland rainforest on the bank of the Kinfa River, Perak.

Assessor: Chung, R.C.K.

Refs: 17140, 19073

**Diplodiscus paniculatus**

Tiliaceae. VU A1cd

Philippines

A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

Assessor: World Conservation Monitoring Centre

Refs: 2072, 4919

**Diplodiscus scortechinii**

Tiliaceae. LR/cd

Brunei, Malaysia (Peninsular Malaysia, Sarawak)

A lowland forest tree known only from Keledang Saiong Forest Reserve in Perak, Peninsular Malaysia, Lambill Hill, Sarawak and the Andulau Forest Reserve, Brunei.

Assessor: Chung, R.C.K.

Refs: 8464, 19073

**Diplokeleba herzogi**

Sapindaceae. VU B1+2ac

Bolivia

Endemic to the piedmont forest in Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.

Assessor: Prado, D.

Refs: 19122

**Diplopanax stachyanthus**

Cornaceae. VU A1c

China (Guangdong, Guangxi, Guizhou, Hunan, Yunnan), Viet Nam

A small tree, widespread in submontane broadleaved forest on limestone mountains in southern China and in several localities in secondary forest in northern Viet Nam. In China, declines in population numbers have been recorded in the last decade, caused largely by habitat destruction. Traditional medicine may be harvested from the bark, otherwise the tree is only cut for fuelwood. The genus is monospecific.

Assessor: Sun, W.

Refs: 1818, 11847, 15357, 19055

**Diploicosia pilosa**

Ericaceae. VU B1+2c

Indonesia (Java)

From Banten to Preanger the species is locally common in montane forest remnants between 1200 and 2200m. Its high-altitude distribution avoids the worst levels of habitat clearance and cutting but the species habitat is nevertheless under severe pressure.

Assessor: World Conservation Monitoring Centre

**Dipterocarpus alatus**

Dipterocarpaceae. EN A1cd+2cd, B1+2c

Bangladesh, Cambodia, India (Andaman and Nicobar Is., Andaman Is., Assam), Myanmar, Philippines, Thailand, Viet Nam

In Indo-China and Thailand the species occurs gregariously along river banks, and in the Philippines it is found in mixed dipterocarp forest. It is one of the main species of keruing timber in Indo-China and Thailand. Recently D. philippinensis has been discovered to be conspecific. The conservation status is based on the rate of habitat loss.

Assessor: Ashton, P.

Refs: 3998, 9169, 10013, 13857, 15754, 18243

**Dipterocarpus appianatus**

Dipterocarpaceae. CR A1cd, B1+2c

Indonesia (Kalimantan)

A large tree endemic to Kalimantan.

Assessor: Ashton, P.

Refs: 7673, 9169, 13857
Dipterocarpus baudii
Dipterocarpaceae, CR A1cd+2cd
Cambodia, Indonesia (Sumatra), Malaysia, Myanmar, Thailand, Viet Nam
A species found scattered in the greatly reduced lowland evergreen forests of South East Asia.
Assessor: Ashton, P.
Refs: 3998, 6646, 7673, 9169, 13857

Dipterocarpus bourdillonii
Dipterocarpaceae, CR A1cd+2cd, B1+2c
India (Karnataka, Kerala, Tamil Nadu)
A large tree endemic to the Western Ghats, occurring principally in lowland evergreen forest in Kerala, with one or two occurrences extending into Karnataka and Tamil Nadu. The timber is used to make plywood.
Assessor: Ashton, P.
Refs: 3998, 13857, 19144

Dipterocarpus caudatus ssp. caudatus
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Philippines, Viet Nam
A lowland subspecies found locally in permanently wet zones. The timber is strong and used in heavy construction. Wood-oil was also of commercial value in the past.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus caudatus ssp. penangianus
Dipterocarpaceae, EN A1cd+2cd, B1+2c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Singapore
A lowland subspecies found on well-drained land in humid areas. The strong timber is utilised for heavy construction and the wood-oil once had commercial value.
Assessor: Ashton, P.
Refs: 7673, 9169, 9199, 13857

Dipterocarpus chartaeus
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Malaysia (Peninsular Malaysia), Thailand
A large tree of lowland dipterocarp forest or semi-swamp forest.
Assessor: Ashton, P.
Refs: 5550, 6206, 6646, 7673, 9169, 13857

Dipterocarpus cinereus
Dipterocarpaceae, EX
Indonesia (Sumatra)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus concavus
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Dipterocarpus conformis ssp. borneensis
Dipterocarpaceae, VU A1cd, B1+2c
Brunei, Malaysia (Sabah, Sarawak)
This subspecies is restricted to northern Borneo, where it grows in mixed dipterocarp forest up to 800m.
Assessor: Ashton, P.
Refs: 13857, 14573

Dipterocarpus conformis ssp. conformis
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Indonesia (Sumatra)
This variety is confined to lowland and hill dipterocarp forests in north-west Sumatra.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus coriaceus
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia)
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857, 17140

Dipterocarpus cornutus
Dipterocarpaceae, CR A1cd+2cd
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia), Singapore
The conservation status of this species is based on the rate of habitat loss and conversion.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 17140

Dipterocarpus costatus
Dipterocarpaceae, EN A1cd+2cd
Bangladesh, Cambodia, India (Andaman and Nicobar Is. - Andaman Is.), Laos, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam
This species is widely scattered in lowland, hill and upper dipterocarp forest. Natural hybrids are formed with D. obtusifolius in Thailand and with D. gracilis in Thailand and Peninsular Malaysia. Populations are found within reserves.
Assessor: Ashton, P.
Refs: 3998, 7673, 9169, 10013, 13857, 15754, 16925

Dipterocarpus costulatus
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
A large tree exploited for the keruing timber. The conservation status is based upon the rate of habitat loss.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 17140

Dipterocarpus crinitus
Dipterocarpaceae, EN A1cd+2cd
Malaysia (Peninsular Malaysia), Thailand
A large tree of mixed dipterocarp forest, important as a source of keruing timber and also for various other uses. Conservation status of the species is based upon the rate of habitat loss and conversion. Populations are found within forest reserves.
Assessor: Ashton, P.
Refs: 11295, 13857

Dipterocarpus cuspidatus
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Malaysia (Sarawak)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus dyeri
Dipterocarpaceae, CR A1cd+2cd, B1+2c
Cambodia, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam
A lowland tree of semi-evergreen dipterocarp forest and
Schima/bamboo forest. The conservation status is based on rates of habitat loss.
Assessor: Ashton, P.
Refs: 3998, 5550, 7673, 9169, 10013, 13857

*Dipterocarpus elongatus*
Dipterocarpaceae  
CR A1cd+2cd, B1+2c  
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Singapore  
A large tree of secondary and primary forest and freshwater swamp forest. The conservation status is based on rates of habitat loss.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 18243

*Dipterocarpus eurynchus*
Dipterocarpaceae  
CR A1cd+2cd, B1+2c  
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Philippines  
A species with a localised distribution in mixed dipterocarp forest on leached clay soils.
Assessor: Ashton, P.
Refs: 7673, 9169, 10547, 13857

*Dipterocarpus fagineus*
Dipterocarpaceae  
CR A1cd+2cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
Assessor: Ashton, P.
Refs: 9169, 10547, 13857

*Dipterocarpus fusiformis*
Dipterocarpaceae  
CR A1cd+2cd, B1+2c  
Indonesia (Kalimantan)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

*Dipterocarpus glabrigemmatus*
Dipterocarpaceae  
CR A1cd+2cd, B1+2c  
Indonesia (Kalimantan), Malaysia (Sarawak)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

*Dipterocarpus glandulosus*
Dipterocarpaceae  
CR A1cd, B1+2c  
Sri Lanka  
An emergent species found only in restricted lowland wet evergreen forests on well-drained deep soils. Populations have been eliminated from many areas because of excessive tapping for resin. Regeneration is also observed to be poor. Some populations are known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195

*Dipterocarpus globosus*
Dipterocarpaceae  
CR A1cd+2cd, B1+2c  
Brunei, Indonesia (Kalimantan), Malaysia (Sarawak)  
This species is locally abundant in mixed dipterocarp forest and heath forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

*Dipterocarpus gracilis*
Dipterocarpaceae  
CR A1cd+2cd  
Bangladesh, India (Andaman and Nicobar Is. - Andaman Is., Arunachal Pradesh, Assam, Tripura), Indonesia (Java, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia), Myanmar, Philippines, Thailand

A large tree found in lowland semi-evergreen and evergreen dipterocarp forest. It is one of the important sources of kering timber in Indo-China and is often used as a commercial grade plywood. The conservation status is based on rates of habitat loss. Some populations are known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857, 15754

*Dipterocarpus grandiflorus*
Dipterocarpaceae  
CR A1cd+2cd  
India (Andaman and Nicobar Is. - Andaman Is.), Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah), Myanmar, Philippines, Singapore, Thailand, Viet Nam  
A relict species of the Pleistocene Sundland, occurring in primary semi-evergreen and evergreen dipterocarp forest. Substantial amounts of kering timber and also large quantities of oleo-resin are harvested. The conservation status of the species is based on rates of habitat loss and conversion. Some populations are known to exist within reserves.
Assessor: Ashton, P.
Refs: 848, 3998, 6646, 9169, 9199, 13857, 17140

*Dipterocarpus hasseltii*
Dipterocarpaceae  
CR A1cd+2cd  
Indonesia (Bali, Java, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah), Philippines, Thailand, Viet Nam  
A large tree of lowland dipterocarp forest, cut for kering timber. It is recorded in the sacred forest of Sanggen, Bali, and some forest reserves. The conservation status of the species is based on the rate of habitat conversion and loss.
Assessor: Ashton, P.
Refs: 5054, 5550, 7673, 9169, 13857

*Dipterocarpus hispidus*
Dipterocarpaceae  
CR A1cd  
Sri Lanka  
A species of the restricted lowland wet evergreen forest in south-west Sri Lanka. It is reported to regenerate well. There are populations in some forest reserves.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195

*Dipterocarpus indicus*
Dipterocarpaceae  
EN A1cd+2cd, B1+2c  
India (Karnataka, Kerala, Tamil Nadu)  
A species found in lowland humid evergreen forests in southern India. It regenerates prolifically in disturbed areas. It is an important plywood species.
Assessor: Ashton, P.
Refs: 3998, 8483, 9169, 13857, 15754, 19144

*Dipterocarpus insignis*
Dipterocarpaceae  
CR A1bcd, B1+2c  
Sri Lanka  
The species occurs in an area that has been proposed as a reserve.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195

*Dipterocarpus kerrii*
Dipterocarpaceae  
CR A1cd+2cd, B1+2c  
India (Andaman and Nicobar Is. - Andaman Is.), Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia), Myanmar, Philippines, Thailand, Viet Nam
Dipterocarpus kunstleri
Dipterocarpaceae
CR Alcd+2cd, B1+2c
Indonesia (Sumatra), Malaysia (Sarawak), Philippines
The conservation status is based on rates of habitat loss.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus lamellatus
Dipterocarpaceae
CR Alcd+2cd, B1+2c, C1, D1
Malaysia (Sabah)
Endemic to Sabah, the species is found in mixed dipterocarp forest on low coastal hills.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus littoralis
Dipterocarpaceae
CR B1+2c, C2a
Indonesia (Java)
Confined to Nusa Kambangan Island, Java, this species is locally common in lowland mixed rainforest covering an area of about 80km². Despite the presence of three high-security prisons and armed guards patrolling a 20km² reserve, the tree is illegally harvested.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus lowii
Dipterocarpaceae
CR Alcd+2cd, B1+2c
Brunei, Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A large tree which is an important source of keruing timber. Some populations of the species are found in forest reserve.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 17140

Dipterocarpus perakensis
Dipterocarpaceae
CR Alcd+2cd, B1+2c, C1, D1
Malaysia (Peninsular Malaysia)
A very localised species found in lowland dipterocarp forest on coastal hills.
Assessor: World Conservation Monitoring Centre
Refs: 7673, 9169, 13857

Dipterocarpus retusus
Dipterocarpaceae
VU Alcd+2cd, B1+2c
China (Yunnan), India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland, Tripura, West Bengal), Indonesia (Java, Lesser Sunda Is., Sumatra), Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam
A large timber tree which is widespread in moist evergreen, sometimes semi-deciduous, montane forest. In China, the species is confined to an area of 30 km² in Yingjiang, where a nature reserve has been set up. The populations in Viet Nam, restricted to northern evergreen or monsoon forests, have been reduced to at least half their original size.
Assessor: Ashton, P.
Refs: 1818, 3998, 5550, 7673, 9169, 11847, 13857, 15754

Dipterocarpus rigidus
Dipterocarpaceae
CR Alcd+2cd, B1+2c
Indonesia (Sumatra), Malaysia (Sarawak)
A large tree which occurs locally in dry forest on coastal hills. Some populations are found within forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Dipterocarpus rotundifolius
Dipterocarpaceae
CR Alcd+2cd, B1+2c
Malaysia (Peninsular Malaysia)
A large tree endemic to Peninsular Malaysia and found on coastal hills.
Assessor: Ashton, P.
Refs: 5550, 11647, 13857

Dipterocarpus semievolutus
Dipterocarpaceae
CR Alcd+2cd, B1+2c, C1, D1
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia)
A tree of lowland forest on almost swampy land. It is very close to extinction because of the loss and degradation of its habitat.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 17140

Dipterocarpus sublamellatus
Dipterocarpaceae
EN Alcd+2cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Singapure
In Peninsular Malaysia, this very large tree is an important source of keruing timber.
Assessor: World Conservation Monitoring Centre
Refs: 7673, 9169, 13857, 17140

Dipterocarpus tempehes
Dipterocarpaceae
CR Alcd+2cd, B1+2c
Indonesia (Kalimantan)
A lowland species, which is locally abundant near freshwater swamps and streams. It is often used as keruing timber in Sabah and parts of Sarawak, but is mainly threatened by habitat loss.
Assessor: Ashton, P.
Refs: 7673, 13857, 18327

Dipterocarpus turbinatus
Dipterocarpaceae
CR Alcd+2cd
Bangladesh, Cambodia, India (Andaman and Nicobar Is., Andaman Is., Arunachal Pradesh, Assam, Manipur, Meghalaya, Tripura), Laos, Myanmar, Thailand, Viet Nam
A large tree found in mixed deciduous, evergreen and semi-evergreen forest. It is exploited for the manufacture of commercial-grade plywood. The conservation status is based on the rate of habitat loss. Some populations are protected in reserves.
Assessor: Ashton, P.
Refs: 3998, 6646, 9169, 13857, 15754

Dipterocarpus validus
Dipterocarpaceae
CR Alcd+2cd
Indonesia (Kalimantan), Malaysia (Sabah), Philippines
This species occurs in both primary and secondary forest, especially along rivers and in freshwater swamps. Its wood is used as keruing timber and large quantities of wood-oil are extracted.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857
**Dipterocarpus zeylanicus**  
Dipterocarpaceae  
Sri Lanka  
A canopy tree scattered in restricted areas of lowland wet evergreen forest. It is also found as an emergent in semi-evergreen moist forest. Regeneration is noted to be good. The conservation status is based on the rate of habitat loss and conversion. Some populations are also known to exist in forest reserves. The wood is an important source of plywood in Sri Lanka.  
Assessor: Ashton, P.  
Refs: 13857, 15431, 17195

**Dipterocarpus dyeriana**  
Dipterocarpaceae  
China (Yunnan)  
Known only from the counties of Mengzi and Wenshan in the south-east of Yunnan, the species occurs at the edges of broadleaved evergreen forest between 1800 and 2400m. The habitat has declined in extent because of logging and clearing for agriculture, but the area is now under protection. It is a prized ornamental plant and one of just two species in the genus.  
Assessor: Sun, W.  
Refs: 1818, 11847, 19055

**Dipterocarpus sinensis**  
Dipterocarpaceae  
China (Gansu, Guizhou, Henan, Hubei, Hunan, Shaanxi, Sichuan)  
The more widespread of the two species in the genus. It occurs in small stands scattered in mountainous moist forest areas in the centre and south-west of China.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 11847

**Dipteryx alata**  
Leguminosae  
Brazil  
This tree, confined to *cerrado*, is widespread in Brazil. The species has suffered from habitat conversion for agriculture. In addition, exploitation of its excellent quality timber and medicinal seeds has led to massive declines in population numbers.  
Assessor: World Conservation Monitoring Centre  
Refs: 4506

**Dipteryx charapilla**  
Leguminosae  
Peru  
Known only from the type locality, the species occurs in Amazon forest in the department of Loreto.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Diploclaoxylon occidentale**  
Euphorbiaceae  
Somalia  
A forest tree, known only from a few herbarium specimens and thought to be extinct until it was rediscovered in 1968. Populations have been located at a range of altitudes in Pico, Angolares and Monte Café in two locations, one in Esperanza. The remaining populations are now confined to higher altitudes which have evaded deforestation.  
Assessor: World Conservation Monitoring Centre  
Refs: 2724, 10080

**Distylium gracile**  
Hamamelidaceae  
Taiwan  
A species localised in wooded limestone areas in Taroko National Park, Hualien, eastern Taiwan. There is some threat from mining activities and regeneration does not appear to be good.  
Assessor: Lu, S.Y. & F.J. Pan  
Refs: 3295, 19050, 19051

**Doerpfeldia cubensis**  
Rhamnaceae  
Cuba  
A very uncommon tree found in coastal and subcoastal areas of eastern and south-central Cuba. The dry evergreen forests where this species thrives have experienced severe degradation in many places.  
Assessor: Areces-Mallea, A.E.  
Refs: 9522, 11403, 19149

**Dombeya aethiopica**  
Sterculiaceae  
Ethiopia  
A tree of dry Juniperus forest, forest margins and secondary forest. It is endemic to Ethiopia and is found in various localities in the western and south-west highlands.  
Assessor: World Conservation Monitoring Centre  
Refs: 2361, 5941

**Dombeya amaniensis**  
Sterculiaceae  
Tanzania  
Three localities are known where the species is found in moist forest within a narrow altitudinal belt, between 900 and 1000m: the East Usambara Mountains, Makuyuni and Mahenge.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814
Dombeya longibracteolata
Sterculiaceae  VU D2
Ethiopia
Three localities in Kefa, Gamo Gofa and Sidamo regions are known, where the species occurs in Combretum-
Terminalia woodland.
Assessor: World Conservation Monitoring Centre
Refs: 5941

Dorstenia gigas
Moraceae  VU D2
Yemen (Socotra)
The largest species in the genus, attaining a height of 3.7m. The trunks are succulent and in drought years the
whole plant is cut and pulped as fodder for goats. During years of average rainfall populations are largely
untouched and unthreatened as they are confined to vertical cliff faces and areas inaccessible to grazing
goats. The species is found only on the Haggier Mountains. It is of great horticultural interest and could
potentially come under risk from overcollection by enthusiasts.
Assessor: Miller, A.G.
Refs: 2354, 19083

Dovyalis xanthocarpa
Flacourtiacae  VU B1+2b
Tanzania
A species, endemic to Tanzania, occurring in lowland dry forest in northern and central eastern areas.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5020

Dracaena cinnabari
Dracaenaceae  EN B1+2c
Yemen (Socotra)
The dragon tree of Socotra. Occurring only at altitudes above 500m in the centre and east of the island, the
species is widespread and dominant in areas of woodland. Regeneration is very limited and generally
confined to cliffs and boulders. Of its various uses it is most famously known as a commercial source of
dragon's blood. Current exploitation is small-scale but there is potential for more harmful exploitation to take
place.
Assessor: Miller, A.G.
Refs: 2354, 19083

Dracaena concinna
Dracaenaceae  EN A1ce
Mauritius
The remaining populations of this species are now managed in reserves, which should halt previous
decreases in numbers. The populations are very small and confined to a few tiny islands.
Assessor: Strahm, W.
Refs: 9120, 16426, 19208

Dracaena draco
Dracaenaceae  VU A1bcde
Cape Verde, Morocco, Portugal (Madeira), Spain (Canary Is.)
The wild populations of the dragon tree have been in decline for a long time. The species is present in five of
the seven islands in the Canaries and the total population is reduced to a few hundred trees. In Madeira and Porto
Santo, it was once an important component of the vegetation in more arid areas but is reduced today to two
individuals in the wild. A survey in 1996 revealed new populations in North Africa, in the Anezi region of the
Anti-Atlas Mountains in Morocco. Thousands of individuals exist on steep quartzite cliffs in inaccessible
gorges. These populations are likely to represent a distinct variant of the species. The species is listed in
regional, governmental and international legislation. It is widespread in cultivation, long-living and reaches
maturity in 30 years. Dragon's blood had a wide range of uses as a medicine, for staining violins and for
embalming the dead. Its closest relative is the dragon tree endemic to Socotra.
Assessor: Bafras, A. et al.
Refs: 7228, 13121, 19022, 19131, 19199

Dracaena floribunda
Dracaenaceae  EN A1ce+2ce
Mauritius
Assessor: Strahm, W.
Refs: 9120, 16426, 19208

Dracaena ombet
Dracaenaceae  EN A1cd
Djibouti, Egypt, Ethiopia, Saudi Arabia, Somalia, Sudan, Uganda
A once widespread and abundant species known as the
Nubian dragon tree, it has experienced population declines throughout its range. Scattered individuals
remain in inaccessible areas. The populations on the Red Sea Hills and Jebel Elba in Sudan and Egypt are
particularly threatened. Overgrazing, overcutting and droughts have contributed to these declines.
Assessor: World Conservation Monitoring Centre
Refs: 2361, 5165, 6988, 16021

Dracaena serrulata
Dracaenaceae  EN A1bcd
Oman, Saudi Arabia, Yemen
This taxon represents the populations of the dragon tree in the southern escarpments of the Arabian Peninsula.
The species, however, is likely to be taxonomically indistinct from D. ombet. The Arabian populations are
restricted to high altitudes in drier areas. In Oman trees on Jabal Samhan have been severely damaged in the last
10 years because of the cutting of leaves for camel fodder. No regeneration is apparent anywhere within its
distribution in Oman.
Assessor: World Conservation Monitoring Centre
Refs: 16380, 19083

Dracaena uinbracaulifera
Dracaenaceae  EX
Mauritius
It is possible there are complications in the taxonomy of the species.
Assessor: Strahm, W.
Refs: 9120, 16426, 19208

Drimys confertifolia
Winteraceae  VU D2
Chile (Juan Fernández Is)
A dominant species of lowland dry forest and lower montane forest on Masatierra and Masafuera Islands.
The extent of the forest has declined through the effects of grazing by feral animals, spread of introduced weeds
and soil erosion. Trees were cut in large numbers for lumber in the past. Preliminary data indicate the species
is confined to less than 100km². More detailed information on the species should become available to
confirm this evaluation. The islands are designated as a
national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 14140

**Drymophloeus lepidotus**
Palmae
Solomon Islands (South Solomon)
A rainforest palm, occurring up to 600m, restricted to the Solomon Islands. The genus is in need of taxonomic revision.
Assessor: Dowl, J.L.
Refs: 19118

**Drymophloeus oliviformis**
Palmae
Indonesia (Moluccas)
A single-stemmed palm of lowland rainforest, confined to Ambon Island. The genus is in need of taxonomic revision.
Assessor: Johnson, D.
Refs: 19118

**Drymophloeus pachyclados**
Palmae
Solomon Islands (South Solomon)
Confined to Makira Island, this palm tree is located inland in moist lowland forest up to 600m. The genus is in need of taxonomic revision.
Assessor: Dowl, J.L.
Refs: 19118

**Drymophloeus samoensis**
Palmae
Western Samoa
A rare palm of montane cloud forest on Savai'i and Upolu Islands. Natural disasters pose the most serious threat.
Assessor: Whistler, A. & D. Johnson
Refs: 19118

**Drymophloeus subdistichus**
Palmae
Solomon Islands (South Solomon)
A palm tree, scattered in lowland rainforest. The genus is in need of taxonomic revision.
Assessor: Dowl, J.L.
Refs: 19118

**Dryobalanops aromatica**
Dipterocarpaceae
CR A1 cd+2 cd, B1+2c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A very large gregarious tree, which provides much of the kapur timber and camphor for Peninsular Malaysia and Sumatra. Small populations of the species have been found in forest reserves. It has recently been determined that *D. sumatrana* is synonymous.
Assessor: Ashton, P.
Refs: 3738, 10547, 13857

**Dryobalanops beccarii**
Dipterocarpaceae
EN A1 cd+2 cd
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
Distributed within Borneo, this locally abundant tree occurs on leached sandy soils, sometimes in periodically inundated areas or along streams. In Brunei the wood is considered to be the best-quality kapur timber.
Assessor: Ashton, P.
Refs: 7673, 13857

**Dryobalanops fusca**
Dipterocarpaceae
CR A1 cd+2 cd, B1+2c, C1, D1
Indonesia (Kalimantan)
This species occurs locally on sandy, podzolic soils in heath forest.
Assessor: Ashton, P.
Refs: 7673, 13857

**Dryobalanops keithii**
Dipterocarpaceae
CR A1 cd+2 cd, B1+2c, C1, D1
Indonesia (Kalimantan)
A lowland species always found near water.
Assessor: Ashton, P.
Refs: 7673, 13857

**Dryobalanops lanceolata**
Dipterocarpaceae
EN A1 cd
Indonesia (Kalimantan), Malaysia (Sabah)
This is the tallest recorded dipterocarp tree. Its kapur timber fetches the highest prices in Borneo and the species is also a major source of Borneo camphor. The conservation status of this tree is based upon the rate of habitat loss and conversion. Some populations are known to occur within forest reserves.
Assessor: Ashton, P.
Refs: 7673, 13857

**Dryobalanops oblongifolia ssp. oblongifolia**
Dipterocarpaceae
EN A1 cd
Indonesia (Kalimantan), Malaysia (Sarawak)
Some populations are known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Dryobalanops oblongifolia ssp. occidentalis**
Dipterocarpaceae
EN A1 cd, B1+2c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A large tree restricted to shallow acidic soils.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Drypetes afzelii**
Euphorbiaceae
VU A1 c, B1+2c
Côte d'Ivoire, Ghana, Liberia, Sierra Leone
Extending from Sierra Leone to Ghana, this species occurs only in a restricted wet evergreen forest habitat, generally along rivers. It is uncommon and has suffered from general declines in this habitat because of mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

**Drypetes andamanica**
Euphorbiaceae
EN B1+2c
India (Andaman and Nicobar Is. - Andaman Is.)
Endemic to South Andaman Island, the species occurs in areas of evergreen forest which have declined severely in extent through logging activities. A relatively intact tract of forest remains in the Jarwa Reserve where it is possible the species occurs.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 7147
**Drypetes caustica**
Euphorbiaceae
Mauritius, Réunion
Assessor: Strahm, W.
Refs: 2046, 12470, 16426, 19208

**Drypetes cockbournii**
Euphorbiaceae
Malaysia (Peninsular Malaysia)
A relatively recently discovered species, known from areas of rainforest between 500 and 700m in Pahang and Johore. The full distribution and abundance of the species is still unknown. One locality in Ulu Endau is protected within Endau Rompin National Park and the other in Gunung Pantai is also a conserved area.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Drypetes deterabilis**
Euphorbiaceae
Malaysia (Peninsular Malaysia)
Known only from Kuala Triang in Pahang, the species has been collected only a single time from forest on the banks of the Pahang River.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Drypetes gerrardinoidea**
Euphorbiaceae
Tanzania
An endemic species of dry montane forests within the Udzungwa Forest Reserve and Lulanda. It is abundant but confined to a 70m elevation band. These forests have been heavily exploited and disturbed in the past but active conservation programmes are now in place.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

**Drypetes glabra**
Euphorbiaceae
São Tomé & Príncipe (São Tomé)
Endemic to São Tomé this tree is known from collections, both recent and old, from Ilhéu das Rotas, Angolares, Ribeira Peixe, Lagoa Amalia, Bombaim and Jou. The lowland localities are likely to have been lost in the first half of the century when forest at these altitudes was extensively cleared.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 10080, 19042

**Drypetes henriquesii**
Euphorbiaceae
São Tomé & Príncipe (São Tomé)
A tree of secondary forest, collected only twice, in the last century from S. Nicaolau and more recently from S. Carlos. Areas remain to be explored, although most of the forest below 1500m was cleared in the first half of the century.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 10080

**Drypetes laciniata**
Euphorbiaceae
Cameroon, Côte d'Ivoire, Gabon
A species with a fragmented distribution, which is sparse and confined to remaining areas of lowland moist forest, mostly in protected areas. It is found between the rivers of Sassandra and Cavally in south-west Côte d'Ivoire, including Tai National Park. In Cameroon populations are harboured in Korup National Park and Abong-Mbang. It is relatively widespread in Gabon, where large tracts of forest remain but are under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 12590, 12597, 12822, 19043

**Drypetes natalensis var. leiogyna**
Euphorbiaceae
Kenya, Somalia, Tanzania
A riverine forest tree, occurring in coastal areas from eastern Tanzania and Zanzibar just into Somalia. It is threatened by localised habitat degradation. The type variety occurs from Sudan to KwaZulu-Natal and differs in having hairy fruit.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 9059

**Drypetes nervosa**
Euphorbiaceae
Malaysia (Peninsular Malaysia)
A primary species of lowland rainforest, recorded only from limestone hills in Perak.
Assessor: World Conservation Monitoring Centre
Refs: 19073

**Drypetes obanensis**
Euphorbiaceae
Nigeria
Endemic to the Oban Division of the Cross River National Park, this small forest tree is relatively well protected. Pressures from commercial logging and agriculture are very strong outside the park.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 4977, 11504

**Drypetes oxydonta**
Euphorbiaceae
Malaysia (Peninsular Malaysia)
A species of lowland forest on limestone in Pahang.
Assessor: World Conservation Monitoring Centre
Refs: 19073

**Drypetes palawanensis**
Euphorbiaceae
Philippines
Endemic to Palawan, the species occurs in primary forest at low and medium altitude. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

**Drypetes pellegrini**
Euphorbiaceae
Côte d'Ivoire, Ghana
Occurring only in Ghana and Côte d'Ivoire, this species is found in areas of upland evergreen forest where it can be common in some areas. The effects of fire, overgrazing, forest management activities and mining have caused declines in the extent of the species' habitat.
Assessor: Hawthorne, W.
Refs: 6127, 8369, 12061

**Drypetes perakensis**
Euphorbiaceae
Malaysia (Peninsular Malaysia)
A primary forest species, known only by a single
collection from Perak. The exact locality remains unknown.

**Assessor:** Kochummen, K.M.
**Refs:** 19073

**Drypetes porteri**
Euphorbiaceae
EN B1+2c
India (Tamil Nadu)
Recorded only a few times, the species occurs in scattered localities in low to medium elevation evergreen forest at the southern end of the Western Ghats.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19144

**Drypetes preussii**
Euphorbiaceae
VU B1+2c
Cameroon, Nigeria
A rare species confined to forest patches in south-east Nigeria and neighbouring parts of Cameroon. The largest remaining forested area is contained within Oban Hills in Cross River National Park in Nigeria and the contiguous Korup National Park in Cameroon. Outside these protected areas forest has been comprehensively logged and cleared for agriculture.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 4977, 11504

**Drypetes riseleyi**
Euphorbiaceae
CR D1
Seychelles
A Seychelles endemic confined to the islands of Mahé, Praslin and Silhouette, where it occurs sparsely in the understory of primary and secondary upland forest. The total population contains fewer than 50 trees. Overexploitation of the wood and loss of habitat are the main contributors to the historical decline in the species. Habitat degradation and low recruitment continue to have an impact on remaining trees. Parts of the species range are contained in Morne Seychellois and Praslin National Parks and forest areas protected by the Nature Protection Trust of Seychelles.
**Assessor:** Nature Protection Trust of Seychelles
**Refs:** 9859, 17229, 19023, 19025, 19062

**Drypetes sclerocephala**
Euphorbiaceae
VU B1+2b
Tanzania
A species of dry forest or woodland formations, endemic to the coastal forests of Tanzania. Populations have been recorded at four localities: Lake Lutamba, which has been cleared except for the 10km² of Litofo Forest Reserve, Namatogoro, Mpangapanga Ridge and Nahomba Valley.
**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 10961

**Drypetes singroboensis**
Euphorbiaceae
VU A1c
Côte d'Ivoire, Ghana
A species which, although common in places, is found only in dry forest areas in southern Ghana and in moist semi-deciduous forest between the rivers Bandama and Nzi in Côte d'Ivoire. Declines in this habitat have been severe, mainly because of the effects of human population growth, but also because of fires.
**Assessor:** Assi, A.
**Refs:** 6127, 12061, 12590, 12822

**Drypetes travancorica**
Euphorbiaceae
EN B1+2c
India (Kerala)
Known from a single collection, the species occurs on the Tamil Nadu/Kerala border in lowland evergreen forest.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19144

**Drypetes usambarica var. mrimae**
Euphorbiaceae
VU B1+2c
Kenya
Endemic to Kenya, this variety is confined to a few remaining patches of lowland coastal forest.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 6396, 9198

**Drypetes usambarica var. rugulosa**
Euphorbiaceae
CR B1+2c
Tanzania
The species as a whole is confined to a region covering eastern Tanzania and south-east Kenya. This variety is restricted to the Lulanda forest in the Udzungwa range, where an active conservation programme is in place.
**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 8814

**Drypetes usambarica var. stylosa**
Euphorbiaceae
EN C2b, D1
Tanzania
Confined to moist coastal forest within Kimboza Forest Reserve (4km²), this variety is similarly restricted in range as other varieties of the species. The forest is disturbed, mainly from previous logging activities, and contained within a densely populated area where the demand for land is strong. Two forest guards are employed under the Tanzanian Catchment Forest Project to prevent illegal encroachment.
**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 8814

**Drypetes usambarica var. trichogyna**
Euphorbiaceae
VU B1+2b, D2
Tanzania
As with other varieties of this East African endemic, this taxon is restricted in range. It occurs from lowland to submontane elevations in areas of moist forest on two separate mountains. In the Udzungwa range there are populations at Mwanibana and Chita and to the east in Malundwe National Park.
**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 10961

**Drypetes usambarica var. usambarica**
Euphorbiaceae
VU B1+2b
Kenya, Tanzania
Restricted to south-east Kenya and eastern Tanzania, this variant occurs within moist forest at high elevations. It is contained within reserves over most of its range.
**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 10961

**Drypetes wightii**
Euphorbiaceae
VU B1+2c
India (Kerala, Tamil Nadu)
A species of submontane evergreen forest, occurring in two main areas: in the west of the Nilgiri range and in

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**Species Summaries**
the Anaimalai range. Only a few collections are known.

*Assessor: World Conservation Monitoring Centre
*Refs: 19144

**Duabautia arborea**
Compositae  EN A1ce
USA (Hawaii)
A shrub or small tree of subalpine shrubland, woodland and also alpine desert on Hawaii. It was once common around the flanks of Mauna Kea but the impact of grazing feral animals has severely restricted its distribution. It remains locally abundant above Puu Laau.

*Assessor: World Conservation Monitoring Centre
*Refs: 3372

**Duabautia knudsenii ssp. filiformis**
Compositae  EN B1+2c
USA (Hawaii)
One of three subspecies confined to Kauai. This one appears to be the rarest, known from just two collections.

*Assessor: World Conservation Monitoring Centre
*Refs: 3372

**Duabautia knudsenii ssp. knudsenii**
Compositae  EN A1ce
USA (Hawaii)
One of three subspecies confined to Kauai.

*Assessor: World Conservation Monitoring Centre
*Refs: 3372

**Duabautia knudsenii ssp. nagatae**
Compositae  EN A1ce
USA (Hawaii)
One of three subspecies confined to Kauai Island.

*Assessor: World Conservation Monitoring Centre
*Refs: 3372

**Duabautia microcephala**
Compositae  EN A1c, C2a
USA (Hawaii)
Confined to Kauai Island, this shrub or small tree is infrequently collected and scattered in small numbers in moist forest between 825 and 1275m.

*Assessor: World Conservation Monitoring Centre
*Refs: 3372

**Duabautia reticulata**
Compositae  VU A1c
USA (Hawaii)
A montane rainforest species confined to Maui Island. It appears to have been eliminated from the vicinity of Puunianiau but remains locally abundant on the east side of Koolau Gap.

*Assessor: World Conservation Monitoring Centre
*Refs: 3372

**Duguetia peruviana**
Annonaceae  DD
Peru
A poorly known species. It has been collected just once from an unspecified location.

*Assessor: World Conservation Monitoring Centre
*Refs: 1984

**Duguetia schluzii**
Annonaceae  VU D2
Suriname
Endemic to Jodensavanna, the species is rare and confined to areas of rainforest or savanna forest.

*Assessor: World Conservation Monitoring Centre
*Refs: 942, 6493, 19196

**Dulacia crassa**
Oleaceae  VU D2
Guyana
This species is known from only two collections: one from forest on the slopes of Mount Roraima and the other from Kaiteur Savanna.

*Assessor: World Conservation Monitoring Centre
*Refs: 7980, 19158

**Duranta armata**
Verbenaceae  LR/nt
Peru
Relatively widely ranging, the species occurs in forest up to 4000m in the Peruvian Andes.

*Assessor: World Conservation Monitoring Centre
*Refs: 1984

**Durio acutifolius**
Bombacaceae  VU A1c
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
This understory tree occurs on poor sandy and clay-rich yellow soils, often in periodically inundated areas in lowland rainforest. Wild specimens flower annually and could contribute significantly to the development of a reliably flowering durian cultivar.

*Assessor: World Conservation Monitoring Centre
*Refs: 11145, 18327

**Durio dulcis**
Bombacaceae  VU A1c
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A large tree found scattered in lowland mixed dipterocarp forest. The fruit is sold in local and urban markets, but the species is rarely planted because of its short fruiting period. The wood is probably one of the most important sources of durian timber in Sarawak. Forest clearance and degradation because of agriculture and logging are major threats to the habitat. In addition this species is suffering from some genetic erosion.

*Assessor: World Conservation Monitoring Centre
*Refs: 11145, 18327

**Durio grandiflorus**
Bombacaceae  VU A1c
Brunei, Malaysia (Sabah, Sarawak)
Restricted to the lowland mixed dipterocarp rainforests of northern Borneo, this species has edible fruits which are collected for consumption. It is only occasionally cultivated e.g. in Brunei. The species is suffering from some genetic erosion.

*Assessor: World Conservation Monitoring Centre
*Refs: 11145, 18327

**Durio kutejensis**
Bombacaceae  VU A1c
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
Wild trees are confined to mixed dipterocarp forest on the foothills of the mountains in central Borneo. The natural habitat of this species is threatened by forest degradation due to logging and shifting agriculture and
in Indonesia there is evidence of genetic erosion within populations. The species is cultivated for its popular fruits throughout Malesia and are the most similar to those of D. zibethinus.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 11145, 18327

**Dyera polyphylla**  
Apocynaceae  
**VU A1cd**  
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Sabah, Sarawak)  
Less well-known than the more common D. costata, this species is scattered in swamp forest, peat-swamp forest and *lerangas* on groundwater podzols. The wood is traded as jelutong timber and trees are tapped for the valuable latex. The risk of extinction from overexploitation was recognised 60 years ago. Populations in Sarawak are considered endangered.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 11145, 12937, 17214, 19117

**Dyerophyllum pendulum**  
Plumbaginaceae  
**VU D2**  
Yemen (Socotra)  
The species occurs as a scattered solitary small tree or shrub in dry woodland or shrubland. At present populations are under no threat.  
**Assessor:** Miller, A.G.  
**Refs:** 19083

**Dyerophyllum socotrana**  
Plumbaginaceae  
**VU D2**  
Yemen (Socotra)  
A newly described species, which, like *D. pendulum*, occurs as a scattered solitary small tree or shrub in dry woodland or shrubland. At present populations are under no threat.  
**Assessor:** Miller, A.G.  
**Refs:** 19083

**Dypsis ambanjae**  
Palmae  
**CR D1**  
Madagascar  
This endemic of the Malagasy rainforest has not been collected for over 80 years and is possibly extinct.  
**Assessor:** Johnson, D.  
**Refs:** 19118

**Dypsis ambassitae**  
Palmae  
**CR D1**  
Madagascar  
Currently only known to occur in the central region near Ambossitra, the species is found among rocks and in remnant of riverine forest between 1300m and 1500m.  
**Assessor:** Dransfield, J. & H.J. Beentje  
**Refs:** 18986, 19118

**Dypsis ampasindavae**  
Palmae  
**EN A1cd**  
Madagascar  
This Madagascan endemic is known from only two locations in Nosy Be and Mananara Mountains on steep slopes in moist lowland forest. Both sites are protected within Lokobe Special Reserve. However, tree poaching does occur.  
**Assessor:** Dransfield, J. & H.J. Beentje  
**Refs:** 18986, 19118

**Dypsis andraniatonga**  
Palmae  
**LR/nt**  
Madagascar  
A small branching palm, restricted to Mananara and the Marojejy Massif in north Madagascar. Its habitat is open montane forest or heath, although occasionally it is found on rocks in denser forest.  
**Assessor:** Johnson, D.  
**Refs:** 18986, 19118

**Dypsis antananambensis**  
Palmae  
**EN D1**  
Madagascar  
A tree confined to Mananara Avaratra Biosphere Reserve, where it inhabits open rainforest on ultramafic soils. There are fewer than 50 individuals in total, scattered between 250 and 290m on steep slopes and ridge tops.  
**Assessor:** Johnson, D.  
**Refs:** 19118
**Dypsis arenarum**  
**Palmæ**  
Madagascar  
A littoral forest species, found near fresh water. It is confined to an area lying between Soanianarana-Ivango and Vatomandry. Population numbers are thought to be very low. Various developments and fires continue to threaten the habitat.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis basilonga**  
**Palmæ**  
Madagascar  
This tree is confined to small crown submontane forest on gneiss in Vatovavy, Madagascar.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis boiviniana**  
**Palmæ**  
Madagascar  
This palm of forest undergrowth inhabits open lowland rainforest or sand forest next to black water and peat swamps. It is known only from three sites in north-eastern Madagascar, only one of which is protected. The population is estimated to consist of 50 individuals.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis canaliculata**  
**Palmæ**  
Madagascar  
The species has not been seen since 1951 and may possibly be extinct. Its flowers remain unknown to science. The two known collections were gathered from lowland forest on sandstone in locations which are geographically far apart, one in the Manongarivo area and another from Ampasimanolotra.  
*Assessor:* Johnson, D.  
*Refs:* 18986, 19118

**Dypsis canescens**  
**Palmæ**  
Madagascar  
This species has not been seen for over 50 years and may now be extinct. There is confusion over the type locality, which could either be at Ambalaha on the Ampasindava Peninsula or Ambalaha on the left bank of the Sambirano River. The habitat is defined as lowland moist forest on sandstone.  
*Assessor:* Johnson, D.  
*Refs:* 18986, 19118

**Dypsis ceracea**  
**Palmæ**  
Madagascar  
This species is known only from moist lowland forest in the Marojejy area and Betampona. It has not been seen since 1949.  
*Assessor:* Johnson, D.  
*Refs:* 18986, 19118

**Dypsis commersoniana**  
**Palmæ**  
Madagascar  
A little known Madagascan endemic from the south-eastern lowland rainforest. Most of the habitat has been cleared and the remainder is under intense pressure from the expanding human population.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis confusa**  
**Palmæ**  
Madagascar  
A Madagascan endemic of lowland rainforest in peat swamps, on ridge tops or flat ground. Populations are confined to Masoala, Mananara and Betampona. One site is protected.  
*Assessor:* Johnson, D.  
*Refs:* 18986, 19118

**Dypsis coursii**  
**Palmæ**  
Madagascar  
A palm of moist montane forest or dense sclerophyll forest on ridges, usually found on gneiss and quartzite between 900 and 1850m. The global population is confined to the Marojejy area, which is restricted in size but protected.  
*Assessor:* Johnson, D.  
*Refs:* 19118

**Dypsis crinita**  
**Palmæ**  
Madagascar  
An endemic palm of Madagascar, confined to areas of lowland open forest in Manongarivo, Masoala Peninsula and Mananara Biosphere Reserve. Seedlings require frequent submerging in water, which may explain the species' common occurrence by stream sides.  
*Assessor:* Johnson, D.  
*Refs:* 18986, 19118

**Dypsis decaryi**  
**Palmæ**  
Madagascar  
This species is confined to a small area of southern Madagascar, in dry forest or bush on stony soils. About 1000 individuals are thought to exist in the wild. Fire is a major threat and nearly all the seeds are harvested for export. In cultivation the species is widespread and grown in a wide variety of climates. It is listed in *CITES appendix II.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118
**Dypsis decipiens**  
Palmae  
EN D1  
Madagascar  
This species is restricted to central Madagascar, between Ankazobe and Fianarantsoa, an area prone to forest destruction and fire. The number of individuals in the wild is estimated at about 100. They inhabit remnant forest near streams or on rocky sites between 1400 and 2000m. Cultivation of the palm remains small-scale and the species is listed in *CITES* Appendix II.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 18986, 19118

**Dypsis dransfieldii**  
Palmae  
EN C2b  
Madagascar  
This species inhabits a single site of littoral forest on coastal white sand on the western side of Masoala Peninsula in north-east Madagascar. The habitat is fragile and prone to grazing and clearance for agriculture or settlements.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 18986, 19118

**Dypsis faneva**  
Palmae  
EN A1c, C1  
Madagascar  
An endemic species confined to areas of littoral forest or lowland moist forest in Maroantsetra, Mananara and near Fenoarivo. The lowland rainforest in these areas is not well protected. Fewer than 50 individuals are estimated to exist in total.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 18986, 19118

**Dypsis fasciculata**  
Palmae  
VU A1c  
Madagascar  
A coastal forest palm, rarely extending inland, within an area stretching from Antalaha and Marojejy to Betampona in the north-east of Madagascar. The habitat is often affected by fires.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 18986, 19118

**Dypsis heteromorpha**  
Palmae  
DD  
Madagascar  
A palm of moist montane forest, confined to Tsaratana, Marojejy and Anjanaharibe in northern Madagascar. The area is not botanically well known.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 19118

**Dypsis homomantsina**  
Palmae  
CR D1  
Madagascar  
An impressive rainforest tree growing on steep slopes or ridge crests, known only from Maroantsetra and Mananara. Both sites are under pressure from increasing agriculture. The known populations consist of few individuals.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 18986, 19118

**Dypsis ifanadianae**  
Palmae  
CR D1  
Madagascar  
A slender palm, known only from lowland rainforest in the Ifanadiana area, which is undergoing continuous deforestation. Fewer than 50 individuals are known in total.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 19118

**Dypsis intermedia**  
Palmae  
CR D1  
Madagascar  
Fewer than 50 individuals are confined to a single locality of steadily dwindling lowland rainforest in Manombo in Madagascar.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 18986, 19118

**Dypsis interrupta**  
Palmae  
CR B1+2c  
Madagascar  
An ornamental palm of hill forest undergrowth, currently known only from a single collection in the south-east of Madagascar around Ifanadiana and Ambinanindro. The forests of Ambinanindro are gradually being destroyed by shifting cultivation.  
*Assessor*: Dransfield, J. & H.J. Beentje  
*Refs*: 18986, 19118

**Dypsis lanceolata**  
Palmae  
VU D2  
Comoros  
This species is restricted to Grande Comore and Moheli in the Comoro Islands. It inhabits rainforest between 500 and 1000m. Information is lacking on the current population status and the species may be more seriously threatened.  
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 18986, 19118

**Dypsis ligulata**  
Palmae  
CR D1  
Madagascar  
A tree last seen over 70 years ago in the lowland moist forest of north-west Madagascar.  
*Assessor*: Johnson, D.  
*Refs*: 18986, 19118

**Dypsis madagascariensis**  
Palmae  
LR/nt  
Madagascar  
Although rare, the species is widespread in north-west and western Madagascar. It occurs in moist rainforest and semi-deciduous dry or plateau forest up to 650m. Populations are also found rarely in palm grassland, dry bushland and coastal forest. The total population consists of several thousand individuals. Habitat destruction is reducing the number of populations. Harvesting of palm heart and wood continues, even in the single protected location in Lokobe Special Reserve.  
*Assessor*: Johnson, D.  
*Refs*: 18986, 19118

**Dypsis malcomberi**  
Palmae  
VU D2  
Madagascar  
This palm is known only from Andohahela Special Reserve, where it inhabits submontane moist forest on
slight or steep slopes, occasionally near forest streams.
Assessor: Johnson, D.
Refs: 18986, 19118

*Dypsis mananjarenae*
Palmae VU D1
Madagascar
This species is confined to lowland moist and dry forest remnants between Mananara and Tsaranana in eastern Madagascar. The entire area suffers high levels of habitat destruction as a result of various anthropogenic activities.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis mangorensis*
Palmae CR D1
Madagascar
A Madagascan endemic, confined to littoral or lowland rainforest in Mananara Biosphere Reserve. There is an old collection from the lower Mangoro River. Only a single sighting has been made recently, consisting of fewer than 20 individuals in a forest patch surrounded by agriculture and under threat of agricultural conversion.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis mcdonaldiana*
Palmae VU A2c
Madagascar
A Madagascan endemic, known only from two recent collections, gathered in coastal lowland forest in Fianarantsoa Province. Fewer than 20 trees are known to exist and the area is being rapidly cut down.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis nauseosa*
Palmae CR D1
Madagascar
A Madagascan endemic known only from two recent collections, gathered in coastal lowland forest in Fianarantsoa Province. Fewer than 20 trees are known to exist and the area is being rapidly cut down.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis nossibensis*
Palmae CR D1
Madagascar
A timber species, confined to Lokobe forest in the northwest, where a number of palm species are felled for timber. Fewer than 25 trees have been counted.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis onilahensis*
Palmae VU D1
Madagascar
A palm confined to north-west, west and south-central Madagascar, inhabiting riverine forest and evergreen forest. Total numbers are estimated to be less than 1000. The species is most abundant within the flood level on the rocky banks of the Analabe River. The area of occurrence is fairly large, but the habitat is prone to outbreaks of fire.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis oreophila*
Palmae VU A1d, C1
Madagascar
An endemic palm of Madagascar confined to areas of moist montane forest in Tsaratanana, Marojejy, high ground near Maroantsetra and Mandritsara. The distribution is limited and the palm heart is highly esteemed, putting the species under considerable pressure.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis oropedionis*
Palmae CR C2a
Madagascar
This palm is known only from two sites on the western side of Madagascar's central plateau, inhabiting relict dry evergreen forest on steep-sided valleys between 1100 and 1450m. Neither population is protected and their habitat is under severe threat from cutting and annual fires.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis ovobontsirana*
Palmae CR D1
Madagascar
A Madagascan endemic, known from a single population of fewer than 10 individuals contained within Mananara Biosphere Reserve. It is found in moist submontane forest on ultramafic soil with a deep humus layer.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis paludosa*
Palmae VU A1c
Madagascar
An endemic palm, occurring along the east coast in small pockets of peat swamp developed on white sand adjacent to the beach zone and also found in swampy areas further inland. Although the coastal lowland forest, which the species inhabits, is widespread it is threatened.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis pembana*
Palmae VU C2b
Tanzania
An endemic palm of Tanzania, confined to lowland moist and littoral forest in Ngezi forest on Pemba Is. The population is estimated at 3000 individuals.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

*Dypsis perrieri*
Palmae VU A1c
Madagascar
An endemic palm of Madagascar, inhabiting moist forest between 150 and 800m, in Marojejy, Masoala and Mananara Avaratra. Despite its fairly wide distribution, the species is uncommon wherever it is found. Over exploitation of the palm heart is a major threat.
Assessor: Johnson, D.
Refs: 18986, 19118
**Species Summaries**

**Dypsis pilulifera**
Palmaceae  
VU B1+2c  
Madagascar  
This endemic palm of Madagascar is confined to moist montane forest in the Sambirano region, Marojejy and Mantady. Harvesting of the palm heart continues even within Marojejy and Mantady protected areas.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis prestoniana**
Palmaceae  
VU D1  
Madagascar  
The entire population does not exceed 200 individuals, confined to the Midongy area. The former population in Mananoro appears to be extinct. In no part of its range is it protected.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis procera**
Palmaceae  
VU A1c  
Madagascar  
A Madagascan endemic, confined to the area around Antongil. The lowland rainforest habitat in this area is under threat from shifting cultivation.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis psammophila**
Palmaceae  
CR C2a  
Madagascar  
A palm confined to east Madagascar, between Soanianara Ivongo and Ambila-Lemaitso. The area of occupancy is small, containing fewer than 100 trees and the lowland coastal forest habitat is being destroyed.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis rivularis**
Palmaceae  
EN D1  
Madagascar  
A palm confined to Mananjeba River, at Manongarivo and Ankarafantsika, where it inhabits streamside forest between 130 and 300m. The total population is estimated to contain less than 100 individuals.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis sahanofensis**
Palmaceae  
EN A1c  
Madagascar  
Formerly known only from the type collection of 1911, the species has now been found in an area of submontane rainforest on Mount Vatovavy, eastern Madagascar. Population numbers are low and the forest is unprotected, although local taboos do provide some form of protection. The status will become critical in the next few years if forest clearance continues.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis saintelucei**
Palmaceae  
CR D1  
Madagascar  
Confined to a single site in Sainte-Luce forest, the species is known from a total population of 50 individuals. The area is threatened by proposed mining operations for mineral sand (ilmenite ore).  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis scottiana**
Palmaceae  
VU D1  
Madagascar  
An endemic palm of south-east Madagascar, inhabiting forest and heath scrub on white sand between 10 and 515m. The species range is small and the habitat is under threat from mining operations and fire.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 19118

**Dypsis serpentina**
Palmaceae  
VU D2  
Madagascar  
A palm confined to Mananara Biosphere Reserve in Madagascar, where it is locally abundant in lowland rainforest on steep slopes and ridgetops on ultramafic soils, between 240 and 280m.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis singularis**
Palmaceae  
CR C1  
Madagascar  
Confined to Manombo forest, the species inhabits lowland rainforest at the base of slopes. Shifting cultivation, fire and logging have gradually destroyed the forest. The number of trees remaining is estimated to be less than 100.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis tsaratananensis**
Palmaceae  
DD  
Madagascar  
This palm, endemic to Madagascar, has not been seen for 70 years. Mount Tsaratiana, where the species occurs, has not been visited for a long time. The palm heart is edible and highly esteemed.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118

**Dypsis tsaravotsira**
Palmaceae  
EN A1cd  
Madagascar  
This endemic palm is confined to Marojejy, Maroantsetra and Mananara, where it occurs in submontane primary woodland on steep slopes or ridgetop hollows. Population numbers are low and two of the sites are under pressure from agriculture.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 19118

**Dypsis utilis**
Palmaceae  
VU A1cd  
Madagascar  
This gregarious palm is restricted to eastern Madagascar, where it is restricted to only a few streamside sites of swamp or moist forest between 950 and 1000m. Numbers are thought to be small.  
*Assessor:* Dransfield, J. & H.J. Beentje  
*Refs:* 18986, 19118
Dysoxylum versipellis
Berberidaceae
VU A1cd
China (Anhui, Fujian, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Yunnan, Zhejiang)
Although the species has a wide distribution, populations are small and declining. It has a wide altitudinal range within moist seasonal forest, sometimes bamboo forest. Roots and seeds are commonly collected for medicinal use, mostly at a local level.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 19055

Dysoxylum angustifolium
Meliaceae
VU B1+2c
Philippines
A species of primary forest, only found in Palawan. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986, 18088

Dysoxylum beddomei
Meliaceae
EN B1+2c
India (Kerala)
Occurring in evergreen forest between 250 and 1200m, the species has been recorded from only a few localities in northern Kerala.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Dysoxylum ficifforme
Meliaceae
VU B1+2c
India (Kerala)
At present five collections are known from scattered localities in the Anamalai and Travancore ranges. The species occurs in the canopy of submontane evergreen forest.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Dysoxylum pachypodium
Meliaceae
CR D1
New Caledonia
Collected very rarely and only recently from an area near Sarraméa, the species has a precarious existence in cultivated fields and also on river borders.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Dysoxylum palawanensis
Meliaceae
VU B1+2c
Philippines
A primary forest species, endemic to Palawan at low altitudes. The main island is declared a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

Dysoxylum peerisi
Meliaceae
CR B1+2c
Sri Lanka
This rare tree is restricted to lowland rainforest in southwest Sri Lanka. It was not found during the extensive forest surveys conducted for the National Conservation Review, indicating that it is extremely rare or possibly extinct. Earlier surveys located a population in Sinharaja Biosphere Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 17195, 19112

Dysoxylum turczaninowii
Meliaceae
VU A1cd
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.
Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919, 18088

Ecclinus lacanifolia
Sapotaceae
VU B1+2c
Brazil (Amazonas)
A shrub or tree known from very few collections originating from permanently flooded forest in central Brazilian Amazonia.
Assessor: Ficeps O'Brien, J.
Refs: 1983, 7980, 8816

Ecclinus orinoensis
Sapotaceae
VU D2
Venezuela
A treelet with a distribution confined to a small area of periodically flooded sandy savanna in Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Ecclinus parviflora
Sapotaceae
VU D2
Venezuela
A newly described species, currently known from just two collections taken from a site of low forest over granitic rocks near Puerto Ayacucho.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Ehretia glandulosissima
Boraginaceae
EN B1+2c
Tanzania
The species range now appears to be confined to the undisturbed areas of Rondo Forest Reserve (140km²). Logging, planting of commercial timbers, shifting cultivation and wood collection in the past have caused disturbance to much of the forest. Current forestry management activities are discouraging illegal activities.
Assessor: Lovett, J. & G.P. Clarke
Refs: 10961, 16796

Ehretia scrobiculata
Boraginaceae
VU D2
São Tomé & Principe (Príncipe)
It appears that only two collections have been made, one being from the coast where just one tree was located. More detailed information is lacking. There have been no recent botanical surveys of the island.
Assessor: World Conservation Monitoring Centre
Refs: 2724

Ekmanianthe longiflora
Bignoniaceae
EN A1c, B1+2cd
Cuba, Dominican Republic, Haiti
A tree confined to semi-deciduous forest in Cuba and Hispaniola. In Cuba and Haiti, the species has disappeared from most places where logging, settlement and agricultural expansion have taken place. In the Dominican Republic it has been reported only from Sierra de Barahona.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 8451, 19149
Species Summaries

Elaeagia ecuadorensis
Rubiacaeae VU B1+2c
Ecuador
This Ecuadorean endemic inhabits cloud forest between 2250 and 3500m. Currently it is known to occur in the High Andean regions of Morona-Santiago and Loja.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Elaeagia pastoensis
Rubiacaeae VU B1+2c
Colombia
An endemic to Putumayo.
Assessor: Calderon, E.
Refs: 19069

Elaeagia uxpanapensis
Rubiacaeae EN A1c
Mexico (Chiapas)
A relatively common tree of evergreen hill forest, confined to the Uxpanapna-Chimalapa region.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 5993, 14953, 19124

Elaeagnus conferta ssp. dendroidea
Elaeagnaceae CR B1+2c
India (Meghalaya)
This subspecies is confined to the Khasi Hills, where it occurs in hill forest. Only a single occurrence is known and numbers are believed to be very small.
Assessor: World Conservation Monitoring Centre
Refs: 4799

Elaeagnus mollis
Elaeagnaceae VU A1cd
China (Shaanxi, Shanxi)
Restricted to Xiangning, Hejin and Yicheng Counties in Shanxi and Huxian County in Shaanxi, the species is scattered on mountain slopes between 800 and 1500m. The numbers of large individuals and the overall natural extent of the species is declining because of overcutting.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Elaeagnus tarokoensis
Elaeagnaceae VU D1+2
Taiwan
Endemic to Taiwan, the species occurs in lowland forest in a small area to the east around Tienshiang.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 19053

Elaeocarpus acmosepalus
Elaeocarpaceae VU B1+2c
Malaysia (Peninsular Malaysia), Singapore
A medium-sized tree scattered throughout the freshwater and peat-swamp forest in Pehang, Selangor and Johore in Peninsular Malaysia, and parts of Singapore.
Assessor: Chua, L.S.L.
Refs: 9199, 19073

Elaeocarpus apiculatus
Elaeocarpaceae VU B1+2a
Malaysia (Peninsular Malaysia), Viet Nam
A large tree of primary forest, on valley and mountain slopes up to 330m. Regeneration under the canopy of wet forests is reported to be profuse in Viet Nam, where it is known from Ninh Binh (Cuc Phuong National Park), Thanh Hoa and Lam Dong Provinces. Populations are localised in Peninsular Malaysia in Kelantan, Terengganu and Perak.
Assessor: Chua, L.S.L.
Refs: 8464, 15357, 19073

Elaeocarpus beccarii ssp. beccarii
Elaeocarpaceae VU B1+2c
Malaysia (Sarawak)
A few localities are known in the region of Kuching. The taxon occurs in primary lowland forest. All forms of this species are restricted in range.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus beccarii ssp. nitens
Elaeocarpaceae VU B1+2c
Malaysia (Sarawak)
A tree of Sarawak hill forest occurring in a number of localities in Lundu District. All the forms of this species are restricted in range.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus beccarii ssp. sumatrana
Elaeocarpaceae VU B1+2c, D2
Indonesia (Sumatra)
Known only from the type collection, this newly described subspecies is found in lowland ridge forest in Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus blascoi
Elaeocarpaceae EN B1+2c
India (Tamil Nadu)
Occurring on the fringes of moist evergreen forest at an altitude of 2150m, the species is confined to the Palni and Kodaikanal Hills. It has not been found in recent years and may have suffered the conversion of its habitat to agricultural land.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

Elaeocarpus bojeri
Elaeocarpaceae CR D1
Mauritius
Fewer than 10 dwarfed trees are found in degraded cloud forest close to an Indian temple in the Grand Bassin. They are being closely monitored.
Assessor: Page, W.
Refs: 1411, 9120, 16426

Elaeocarpus brigittae
Elaeocarpaceae VU D2
Indonesia (Sumatra)
A newly described species known from montane rainforest and mossy forest in Gunung Leuser National Park in Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus calomala var. pustulatus
Elaeocarpaceae VU A1c, B1+2c
Philippines
A tree found in remaining upland forest in Mindanao, Mindoro, Luzon and possibly Sibuyan.
Assessor: World Conservation Monitoring Centre
Refs: 4074
Elaeocarpus calomala var. villosiusculus
Elaeocarpaceae
Philippines
This variety is very poorly known and the status of any remaining populations in the wild is completely unknown. It was collected from Tayabas on Luzon.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus ceylanicus
Elaeocarpaceae
EN B1+2c
Sri Lanka
A species found only at three localities during the extensive National Conservation Review forest surveys.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 18796, 19112

Elaeocarpus colnettianus
Elaeocarpaceae
VU D1
New Caledonia
A species known only from locations on Mont Colnett and Mont Ignambi in the north-east of Grand Terre, where it occurs in some abundance in forest between 1000 and 1350m.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Elaeocarpus cordifolius
Elaeocarpaceae
LR/cd
Indonesia (Kalimantan), Malaysia (Sarawak)
Occurring in open shrubland, this small tree is recorded in Gunung Mulu National Park in Sarawak and one location in Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus coriaceus
Elaeocarpaceae
EN B1+2c
Sri Lanka
During the extensive National Conservation Review forest surveys, this species was found in only two sites: Horton Plains National Park and the Peak Wilderness Sanctuary.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Elaeocarpus cruciatus
Elaeocarpaceae
LR/cd
Malaysia (Peninsular Malaysia)
Occurring in montane and submontane rainforest, this uncommon species is found in Gunung Padang, Gunung Mandi Angin in Terengganu and Fraser's Hill, Gunung Ulu and the Kali/Genting Highlands in Pahang. It receives protection within a national park and the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Elaeocarpus dinagatensis
Elaeocarpaceae
VU D2
Philippines
Little is known about the present status of this lowland species. It was collected in 1919 from two small islands, Bucas Grande and Dinagat, off the north-east tip of Mindanao.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus eriobotryoides
Elaeocarpaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
This endemic tree occurs in montane forests of southern Peninsular Malaysia, up to 1510m. Its known localities are under threat from infrastructural development.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Elaeocarpus fraseri
Elaeocarpaceae
VU D2
Malaysia (Peninsular Malaysia)
Known only from Peninsular Malaysia, this montane forest species is probably endemic to Fraser's Hill in Pahang. A more serious threat category may be appropriate pending further information.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus gaussenii
Elaeocarpaceae
CR B1+2c
India (Tamil Nadu)
Little is known about this species. It has been collected just once or twice from a single locality of evergreen forest at about 1500m in the Western Ghats.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

Elaeocarpus gigantifolius
Elaeocarpaceae
VU D2
Philippines
A tree only definitely known from the 1909 type collection from steep sloping forest on Mount Apo on Mindanao. The mountain has been relatively well-visited. It also has national park status, although shifting cultivation and illegal logging continue to take place. Other specimens from Leyte Island are similar but more material is needed to confirm they are same species.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus glandulifer
Elaeocarpaceae
VR A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195, 17759

Elaeocarpus homaioides
Elaeocarpaceae
DD
Indonesia (Irian Jaya), Papua New Guinea
A New Guinea endemic recorded from a few locations. It has not been collected in recent years.
Assessor: World Conservation Monitoring Centre
Refs: 4074
Elaeocarpus inopinatus
Elaeocarpaceae VU D2
Malaysia (Sabah)
A small tree known from one location in scrubby forest in Mount Kinabalu National Park.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus integrifolius
Elaeocarpaceae CR D1
Mauritius
The most recent population estimate, in March 1997, is 51 individuals. Trees are found in small groups or as isolated individuals in upland evergreen forest in the Black River Gorges, Macchabe and Brise Fer. There are also isolated trees in the northern mountain ranges. No natural regeneration has been observed.
Assessor: Page, W.
Refs: 1411, 9120, 16426

Elaeocarpus mirtiensis
Elaeocarpaceae VU D2
Brunei
Known from just two collections, this species occurs near river banks in valley forest in Tutong District in Brunei and in Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus moratii
Elaeocarpaceae VU D1
New Caledonia
A species described in 1982 and known only from the location where the type specimen was collected on Mont Ignambi.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Elaeocarpus munronii
Elaeocarpaceae LR/nt
India (Karnataka, Maharashtra, Tamil Nadu)
An uncommon tree occurring in evergreen and *shola* forest between 600 and 2000m over a wide range at the southern end of the Western Ghats.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

Elaeocarpus nanus
Elaeocarpaceae LR/cd
Malaysia (Peninsular Malaysia)
Scattered in moist forest between 1000 and 2000m, the species is found in Perak, Pahang, Selangor and Johore. Some localities receive a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Elaeocarpus prunifolius
Elaeocarpaceae VU B1+2c
Bangladesh, India (Manipur, Meghalaya)
This species appears to be restricted to remaining sacred groves of moist evergreen or semi-evergreen forest in the Khasi Hills and Manipur.
Assessor: World Conservation Monitoring Centre
Refs: 4799

Elaeocarpus pseudopaniculatus
Elaeocarpaceae LR/cd
Malaysia (Peninsular Malaysia)
Occurring in primary submontane to montane rainforest in the state of Pahang, the species is protected within the boundaries of Taman Negara National Park and within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Elaeocarpus recurvatus
Elaeocarpaceae VU B1+2c
India (Tamil Nadu)
Occurring in evergreen forest and *shola* forest above 1800m, the species is endemic to the Anamalai range and parts of the Nilgiris. Its habitat has been strongly affected by fire and conversion to commercial plantations.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

Elaeocarpus reticosus
Elaeocarpaceae LR/cd
Malaysia (Peninsular Malaysia)
A shrubby tree, inhabiting moist forest between 1000 and 2000m on Gunung Rabong in Kelantan, Gunung Bubu in Perak, Gunung Tahan in Pahang and on Gunung Biurmat in Johore. Populations are protected in the Taman Negara National Park and in the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Elaeocarpus royenii
Elaeocarpaceae VU D2
Indonesia (Irian Jaya)
A newly described species known only from the type collection. It occurs along Bot River in Merauke District.
Assessor: World Conservation Monitoring Centre
Refs: 4074

Elaeocarpus rugosus
Elaeocarpaceae VU B1+2c
Malaysia (Peninsular Malaysia), Singapore
A tall tree up to 39m, inhabiting moist lowland and hill forest. This tree can be found in Perak, Terengganu, Pahang, Selangor, Johore and Singapore. It is protected in Cameron Highlands Wildlife Sanctuary.
Assessor: Chua, L.S.L.
Refs: 9199, 19073

Elaeocarpus sallehiana
Elaeocarpaceae LR/cd
Malaysia (Peninsular Malaysia)
A species inhabiting hill and mountain rainforest up to 1070m in Pahang and Terengganu. It receives a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Elaeocarpus simaluensis
Elaeocarpaceae VU D2
Indonesia (Sumatra)
A species known from one location in swamp forest on Simalu Island, north-west Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 4074
**Elaeocarpus submonoceras ssp. collinus**

Elaeocarpaceae  
Indonesia (Kalimantan), Malaysia (Sabah)  
A montane forest tree found in Kalimantan and the Mount Kinabalu region in Sabah.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus submonoceras ssp. fusicarpus**  
Elaeocarpaceae  
Philippines  
A tree that is found in damp montane forest habitats in Mindoro, Negros and Mindanao.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus submonoceras ssp. oliganthus**  
Elaeocarpaceae  
Philippines  
This subspecies is known only from its type locality in Zamboanga District in Mindanao, from where it was collected at the beginning of the century. The monsoon forest here has been almost completely degraded.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus submonoceras ssp. oxypyren**  
Elaeocarpaceae  
Indonesia (Bali, Java)  
A forest tree restricted to a few locations in Java and Bali.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus submonoceras ssp. procerus**  
Elaeocarpaceae  
Philippines  
A subspecies known only from the type locality in the Cuenos Mountains, from where it was collected in 1908. New information may indicate that the species is extinct or that a more serious threat category is appropriate.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus submonoceras ssp. submonoceras**  
Elaeocarpaceae  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)  
A tree known from primary forest in Sumatra and Peninsular Malaysia, where it has not been collected since 1929.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus subvillosus**  
Elaeocarpaceae  
Sri Lanka  
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9176, 17195, 18515

**Elaeocarpus symingtonii**  
Elaeocarpaceae  
Malaysia (Peninsular Malaysia)  
A small tree of montane rainforest, distributed between 1400 and 2200m at Perak in Gunung Bubu, Terengganu in Gunung Mandi Angin and Pahang in the Cameron Highlands, Gunung Berekun. Protected populations are found within Taman Negara National Park and the permanent forest estate.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Elaeocarpus teysmannii ssp. domatiferus**  
Elaeocarpaceae  
Indonesia (Sulawesi)  
Recently found and described, this tree is known only from lower montane forest in Dumoga Bone National Park.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus teysmannii ssp. moluccensis**  
Elaeocarpaceae  
Indonesia (Moluccas)  
A variant known only from the type locality in the Moluccas. It is said to be common where it occurs in thinned-out forest at the sides of a river.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus teysmannii ssp. morowalensis**  
Elaeocarpaceae  
Indonesia (Sulawesi)  
A lowland tree known only from a relatively recent collection made on a ridge top in Morowali in north-east Sulawesi.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus teysmannii ssp. rhizophorus**  
Elaeocarpaceae  
Indonesia (Sulawesi)  
A tree known only from one collection from Minahasa, north Sulawesi. There are reports from the early part of the century that it was planted and protected as a sacred tree. New information may indicate that a more serious threat category is appropriate.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus teysmannii ssp. teysmannii**  
Elaeocarpaceae  
Indonesia (Sulawesi)  
A Sulawesi endemic known only from Minahasa.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4074

**Elaeocarpus venustus**  
Elaeocarpaceae  
India (Kerala, Tamil Nadu)  
A large tree of submontane evergreen forest. It is narrowly distributed in the southern end of the Western Ghats, occurring in Chimunji and Muthukuzhivayal and nearby areas, where the forest has been extensively cleared for a hydroelectric project.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 10733, 14276, 19144

**Elaeodendron laneanum**  
Celastraceae  
Bermuda  
Occurring, sometimes commonly, on rocky upland hillsides throughout the eastern end of the island, Harrington Sound, Walsingham and Abbots Cliff, the species is under no immediate threat. It is also widely
planted in gardens and within its native range as part of a conservation initiative.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19143

**Elaeoloma crispa**  
Sapotaceae  
Venezuela  
The rarest of the four species in the genus. It occurs in areas of periodically or permanently flooded forest confined to Amazonas State.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7890, 8816

**Elatostachys aiyurensis**  
Sapindaceae  
Papua New Guinea  
A small palmoid tree known only from the type collection from Madang Province.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18389

**Elatostachys dzumacensis**  
Sapindaceae  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351

**Elatostachys erythrocarpum**  
Sapindaceae  
Indonesia (Sulawesi)  
Endemic to Sulawesi, this small palmoid tree has been collected only a few times.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18389

**Elatostachys gorupensis**  
Sapindaceae  
Papua New Guinea  
Known only from the type collection, this small palmoid tree occurs in Euphorbia-Ficus forest in the Northern Province.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18389

**Elatostachys rubrofructus**  
Sapindaceae  
Papua New Guinea  
A rare understorey tree of lowland rainforest, often found on riverbanks and near swamps.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18389

**Elingamia johnsonii**  
Myrsinaceae  
New Zealand (North Is.)  
A shrub or small tree, representing a monotypic genus, endemic to the Three Kings Islands. The 1981 Red Data Book of New Zealand records a colony of about 12 small trees in an isolated area of windswept scrub on West Island. A precise population estimate is not presently available, but the species is no longer dangerously low in numbers.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 902, 17637, 19133

**Ellipanthus beccari var. beccarii**  
Connaraceae  
Indonesia (Kalimantan), Malaysia (Sarawak)  
A small dioecious tree which occurs in mixed dipterocarp forest on leached yellow soils in western Borneo. In Sarawak, the only known occurrence is in the Kuching region.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18327, 19017

**Ellipanthus hemandradioides**  
Connaraceae  
Kenya, Tanzania  
This species has a broken distribution, extending 700km along the coastline. It is known from numerous localities of coastal vegetation on white sands usually associated with rivers or wetter areas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1308, 5654, 6396, 14719

**Ellipanthus madagascariensis**  
Connaraceae  
Madagascar  
The type collection was made a century ago in the northwest of the country. The species has not been collected again. Taxonomically, it strongly resembles *E. hemandradioides*, but until further material is available no conclusions can be drawn as to the status of the species.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 14719

**Embelia upembensis**  
Myrsinaceae  
Democratic Republic of Congo, Zambia  
Occurring in Brachystegia woodland on lake shores or river terraces, often on termite hills, this species is restricted to a small area stretching from northern Zambia to Shaba Province in DR Congo.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18965

**Embolanthera spicata**  
Hamamelidaceae  
Philippines  
An endemic genus to Palawan. The species is confined to Mount Victoria, where it is found along streams at about 150m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4986

**Emmenosperma pancherianum**  
Rhamnaceae  
New Caledonia  
A species confined to a few localities in sclerophyllous forest. The habitat is fragmented and massively reduced in extent because of the effects of fire, grazing and encroaching agriculture.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 4492, 10351

**Enantia kummeriae**  
Annonaceae  
Tanzania  
Until recently this species was known only from the East Usambara Mountains. Fallen fruits have now been found in the Mwanihana forest, Udzungwa Mountains, where the species is considered to be very rare. The forest in
both areas has suffered severe declines and encroachment but is now relatively well protected.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 5204, 9302

Endiandra lecardii  
Lauraceae  
VU D2  
New Caledonia  
A species known from two upland locations on the Plateau de Dogny and in Baakin, Canala.  
Assessor: Jaffré, T. et al.  
Refs: 10353, 12630

Endiandra scrobiculata  
Lauraceae  
VU D2  
Malaysia (Peninsular Malaysia)  
Found at 1200m, this montane forest tree is known only from Fraser’s Hill, Pahang. The area is under threat from rapid development as a tourist resort. It is hoped that the species will survive in remnant forest.  
Assessor: Kochummen, K.M.  
Refs: 19073

Endocoma canarioides  
Myrtaceae  
VU A1c  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore, Thailand, Viet Nam?  
A fairly widespread tree found in evergreen forest, open bamboo forest and lowland rainforest below 300m.  
Assessor: World Conservation Monitoring Centre  
Refs: 9199, 9603, 19078

Endocoma rufirachis  
Myrtaceae  
LR/nt  
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)  
A tree found in lowland primary and logged-over forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 1766, 9603

Endocoma virella  
Myrtaceae  
VU D2  
Malaysia (Sabah, Sarawak)  
A primary forest tree very localised within the Fourth Division, Sarawak and Beaufort Hill, Sabah.  
Assessor: World Conservation Monitoring Centre  
Refs: 1766, 9603, 19078

Engelhardia danumensis  
Juglandaceae  
VU D2  
Malaysia (Sabah)  
This tree of lowland mixed dipterocarp forest is known only from the type collection found in the Ulu Segama Forest Reserve.  
Assessor: World Conservation Monitoring Centre  
Refs: 19017

Engelhardia kinabaluensis  
Juglandaceae  
VU D2  
Malaysia (Sabah)  
A rare tree of lowland mixed dipterocarp and submontane forest, known only from the Mamut Copper Mine and the Mesilau area in Kundasang, Mount Kinabalu.  
Assessor: World Conservation Monitoring Centre  
Refs: 19017

Engelhardia mendalomensis  
Juglandaceae  
VU D2  
Malaysia (Sarawak)  
This uncommon tree is known only from the type specimen, which was collected in an area of primary mixed dipterocarp forest in Mendalom Forest Reserve.  
Assessor: World Conservation Monitoring Centre  
Refs: 19017

Englerodendron usambarense  
Leguminosae  
VU B1+2c  
Tanzania  
This monospecific genus is restricted to the East and possibly the West Usambara Mountains. Occurring in moist forest at elevations of 760–1000m, the species has suffered severe habitat losses and degradation in the past.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 3925, 7550

Enicosanthum acuminata  
Annonaceae  
VU A1c  
Sri Lanka  
A rare species restricted to the lowland wet evergreen forests of south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 15431, 17195

Enicosanthum congregatum  
Annonaceae  
LR/nt  
Malaysia (Peninsular Malaysia)  
A very rare tree scattered in lowland forest. So far it has only been collected from Perak and the Bukit Lagong Forest Reserve, Selangor.  
Assessor: Kochummen, K.M.  
Refs: 8464, 19073

Enicosanthum cupulare  
Annonaceae  
VU D2  
Malaysia (Peninsular Malaysia)  
The species is known only from lowland forest in Larut in Maxwell’s Hills, Perak, and Bukit Kajong in Terengganu. Maxwell’s Hills is a protected resort area.  
Assessor: Kochummen, K.M.  
Refs: 8464, 19073

Enicosanthum fuscum  
Annonaceae  
LR/nt  
Malaysia (Peninsular Malaysia)  
Although few collections have been made, the species is expected to be more widespread in areas of lowland and submontane forest. It occurs in Kanching Forest Reserve in Selangor and Gunung Bubu in Perak, where some protection is provided.  
Assessor: Kochummen, K.M.  
Refs: 8464, 11449, 19073

Enicosanthum macranthum  
Annonaceae  
VU B1+2c  
Malaysia (Peninsular Malaysia)  
This tree of lowland forest is known only from Larut in the Maxwell’s Hills mountain range in Perak. This area, home to many endemic plants, is currently conserved and protected; however, with increasing tourism Maxwell’s Hills are likely be developed further.  
Assessor: Kochummen, K.M.  
Refs: 19073
**Enicosanthum praestigiosum**

Annonaceae  
Malaysia (Peninsular Malaysia)

A tree restricted to the lowland swamp forests of south-east Johore. A large part of the area is now being developed.

*Assessor: Kochunnen, K.M.*  
*Refs: 17140, 19073*

**Entandrophragma angolense**

Melichaeae  
Angola, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea (Bioko), Gabon, Ghana, Guinea, Kenya, Liberia, Nigeria, Sierra Leone, Sudan, Tanzania, Uganda

One of the main sources of African mahogany. The commercial exploitation of this timber species has resulted in the large-scale extraction of mature individuals throughout its range. Significant genetic erosion has been reported in some countries. It has the potential to occur commonly and regenerates well after logging damage but not after burning. The seed does not appear to disperse over great distances and regeneration is poor away from parent trees. A slow-growing species. There are protected populations and felling limits in various countries.

*Assessor: Hawthorne, W.*  
*Refs: 450, 2773, 3479, 4506, 6128, 6396, 6718, 10961, 12061, 15017, 16021, 17408*

**Entandrophragma candollei**

Melichaeae  
Angola, Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Ghana, Guinea, Liberia, Nigeria

One of the major sources of African mahogany. The species is widespread and heavily exploited throughout its range. Population densities are comparatively low and seed production is erratic, but regeneration appears to be good where parent trees remain and may also occur to some degree after burning. There are protected populations and felling limits in various countries.

*Assessor: Hawthorne, W.*  
*Refs: 2362, 2773, 6128, 6718, 12061, 17408*

**Entandrophragma cylindricum**

Melichaeae  
Angola, Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Nigeria, Sierra Leone, Togo, Uganda

A major source of African mahogany, this species is scattered in semi-deciduous forests and exploited heavily throughout its range. Genetic erosion caused by the large-scale depletion of mature individuals from populations has taken place in some countries. In comparison with other species of *Entandrophragma*, this species can occur in drier habitats, including abandoned fields, but it does not respond well to burning. Growth rates are amongst the slowest in the genus. There are protected populations and felling limits in various countries.

*Assessor: Hawthorne, W.*  
*Refs: 2362, 2773, 3479, 6128, 6718, 12061, 15017, 16021, 17408*

**Entandrophragma utile**

Melichaeae  
Angola, Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Liberia, Nigeria, Sierra Leone, Uganda

An important source of African mahogany, this widespread species is heavily exploited throughout its range. Genetic erosion caused by the depletion of mature individuals from populations has taken place in most countries. Local overcutting is also common in parts of West Africa. Regeneration is good after disturbance and the species is generally noted to be more light-demanding and tolerant of dry conditions. Growth rates are amongst the slowest in the genus and the seeds and seedlings suffer high mortality rates because of insect attack. There are protected populations and felling limits in various countries.

*Assessor: Hawthorne, W.*  
*Refs: 2773, 6128, 6718, 12061, 13250, 14667, 16822, 17408*

**Eribro ma oblonga**

Stereichaeae  
Cameroon, Côte d'Ivoire, Equatorial Guinea (Bioko), Gabon, Ghana, Liberia, Nigeria, Sierra Leone

A species of various rainforest types, locally common in places. Levels of exploitation for its timber are moderate and are contributing to the declines in population numbers. The current category applied should be kept under review.

*Assessor: African Regional Workshop*  
*Refs: 2773, 8369, 11504, 13013, 13947*

**Erica scoparia ssp. platyodon**

Ericchaeae  
Spain (Canary Is.)

A species known from Tenerife, Gomera and Hierro, where it occurs in areas of woodland from low to medium elevation. It is listed in government legislation of 1991.

*Assessor: Bañares, A. et al.*  
*Refs: 19022*

**Eriocoelum oblongum**

Sapindchaeae  
Gabon, Nigeria

A little-known forest tree that occurs in south-east Nigeria and also in Gabon. The Nigerian population to date appears to be unprotected. Forest outside protected areas has been extensively logged and cleared for agriculture. In Gabon the species is found in Lopé Forest Reserve and most probably in other forest areas which have yet to be explored. There is concern about the degree to which forest is now under concession in Gabon.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 2773, 11504*

**Eriocoelum pungens var. inermis**

Sapindchaeae  
Nigeria

This variety has, until now, been recorded only from the coastal forests in the Eket and Degema area in the south-east. The habitat of the Eket population has been degraded, if not completely destroyed, by oil exploration operations. The other population is unprotected and its habitat is vulnerable to severe degradation.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 450, 2773, 11504*
Eriolaena lushingtonii
Sterculiaceae VU B1+2c
India (Andhra Pradesh, Tamil Nadu) Populations appear to be few and fragmented. The species occurs in lowland hill forest in various localities in the Eastern Ghats. There have been steady declines in the extent of the habitat.
Assessor: World Conservation Monitoring Centre Refs: 4799

Eriotheca peruviana
Bombacaceae VU D2 Peru Known only from the type collection, the species occurs in lowland forest in the department of La Libertad. Assessor: World Conservation Monitoring Centre Refs: 1984

Erithalis harrisi
Rubiaceae LR/nt Jamaica Known from the central parishes, the species is locally common in woodland margins on rough limestone. General habitat declines have been considerable. Assessor: World Conservation Monitoring Centre Refs: 6057, 7980

Erithalis quadrangularis
Rubiaceae VU B1+2c Jamaica Known from Clarendon, Manchester and St Ann, the species is confined to woodland on limestone. General habitat declines have been considerable. Assessor: World Conservation Monitoring Centre Refs: 6057, 7980

Erythrina ankaranensis
Leguminosae EN B1+2abc Madagascar An uncommon tree of limestone outcrops in the Ankarana Massif, north Madagascar. Its area of occupancy covers an estimated 500 km² and is contained within a protected reserve. Assessor: Du Puy, D. & H. Labat Refs: 12353

Erythrina burana
Leguminosae LR/nt Ethiopia Known only from an area of bushland between 1350 and 2100m in Harerage, the species is relatively restricted in distribution but fast growing and under no present threat. Cultivated specimens are found elsewhere in Ethiopia. Assessor: World Conservation Monitoring Centre Refs: 1330, 4505, 18523

Erythrina eggersii
Leguminosae EN D1 Puerto Rico, Virgin Islands (US) Occurring as a vine or tree, the species is known from a small population of about 12 individuals in Nevarez, Puerto Rico, and from three to six isolated trees and a core population of 30–50 trees in Virgin Islands National Park on St John. Plants elsewhere are believed to be cultivated. The main population on St John is under little threat. Populations elsewhere are potentially threatened by grazing and quarrying. In cultivation there is some indication that the plants die before reaching reproductive maturity. Assessor: World Conservation Monitoring Centre Refs: 3786, 7980, 17124

Erythrina elenaee
Leguminosae VU B1+2c Cuba A small tree, up to 10m tall, confined to shrubwoods and forests on the southern slopes of the Guamuhaya Massif of Escambray in Cienfuegos Province. Its habitat has declined through logging and cutting. Assessor: Areees-Mallea, A.E. Refs: 11403, 18485, 19149

Erythrina euodiphylla
Leguminosae VU D2 Indonesia (Java, Lesser Sunda Is.) A rare species, known only from a few herbarium specimens, the last of which was collected in 1975. It occurs in savanna areas in east Java and was once collected on Timor in 1968. The Bali specimen is now thought to belong to E. variegata. The species is recorded in Baluran National Park, where it is potentially threatened by human encroachment and competition with the introduced tree Acacia nilotica. Assessor: World Conservation Monitoring Centre Refs: 9078

Erythrina haerdi
Leguminosae VU B1+2b, D2 Tanzania The species occurs in one locality of dry lowland forest, at the eastern foot of the Udzungwa range. The forest is under some pressure from agricultural encroachment and local exploitation. Assessor: Lovett, J. & G.P. Clarke Refs: 2459, 3356

Erythrina hazomboa
Leguminosae VU D2 Madagascar Currently known from only four localities, this submontane species is uncommon and localised in stands of primary vegetation. Its range is broad, extending over 1000km² and it is likely that further localities exist. Populations are found in Andasibe/Pemar Reserve. Assessor: Du Puy, D. & H. Labat Refs: 12353

Erythrina perrieri
Leguminosae CR C2a Madagascar Known only from a single location in an area of highly fragmented vegetation on Ankara Plateau, this species occupies an area of approximately 100 km². Trees are very rare, scattered and low in numbers. The remaining vegetation is declining rapidly as a result of burning and encroachment. Assessor: Du Puy, D. & H. Labat Refs: 12353

Erythrina sacleuxii
Leguminosae VU B1+2b Kenya, Tanzania Ranging from south-east Kenya, through Tanzania to
Zanzibar and Pemba Islands, the species is restricted to pockets of dry coastal forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 10961

Erythrina schliebenii
Leguminosae
Tanzania
Repeated searches for this species at its type locality have failed to rediscover it. It was collected in the 1930s in an area of forest on the sides of Lake Lutamba, which has since been cleared.
Assessor: Lovett, J. & G.P. Clarke
Refs: 2459, 16796

Erythrina tahitensis
Leguminosae
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Erythrina tuxtlana
Leguminosae
Mexico (Chiapas, Oaxaca, Veracruz)
A tree of high precipitation rainforest, occurring in the regions of Los Tuxtlas, Tuxtepec and Uxpanapa-Chimalapa.
Assessor: World Conservation Monitoring Centre
Refs: 5993, 19124

Erythrococca columnaris
Euphorbiaceae
VU D1+2
São Tomé & Príncipe (Príncipe)
A tree which is known from a single collection. More detailed information is lacking. There have been no recent botanical surveys of the island.
Assessor: World Conservation Monitoring Centre
Refs: 2724

Erythrococca molleri
Euphorbiaceae
LR/nt
São Tomé & Príncipe (São Tomé)
A relatively well-collected shrub or small tree, found in wet and shady places in secondary forest between 500 and 1000m.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 10080

Erythrophleum fordii
Leguminosae
EN A1cd
China (Guangdong, Guangxi), Taiwan, Viet Nam
A valuable timber tree. The Chinese populations are largely reduced to trees left standing around living areas. The species' range in Viet Nam extends from the border with China to Quang Nam-Da Nang Province. Occurring in monsoon or rainforest up to 800m, it can form a scattered or dominant component. Plantations were established in the 1950s to increase supplies of the hardwood but demands are still in excess of what can be sustainably provided.
Assessor: Nghia, N.H.
Refs: 1818, 3054, 11530, 11847

Erythrophysa septentrionalis
 Sapindaceae
Ethiopia
A species of dry Acacia–Commiphora bushland with a rich shrub and forb layer in the eastern Ogaden. It has been collected five times within an area of 2500km². Although the habitat is affected by overgrazing and agricultural activities in some places, the area is not obviously threatened.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 4505, 18523

Erythroxylum acranthum
Erythroxyleae
VU D2
Seychelles (Aldabra)
A frequent constituent of inland mixed scrub occurring on the islands of Malabar, Polymnie, Picard, Grande Terre, Michel, Assumption and Menai. The Aldabran Islands are under protection within a Strict Nature Reserve and only Picard is inhabited with a research station. Areas of Assumption have been disturbed by strip mining for phosphate or guano.
Assessor: World Conservation Monitoring Centre
Refs: 19027

Erythroxylum echinodendron
Erythroxyleae
EW
Cuba
Assessor: World Conservation Monitoring Centre
Refs: 11403, 18485

Erythroxylum incrassatum
Erythroxyleae
VU B1+2c
Jamaica
An uncommon tree confined to woodland on limestone in Manchester and St Ann.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Erythroxylum jamaicense
Erythroxyleae
VU B1+2c
Jamaica
Known from Clarendon and St Ann, the species is confined to woodland on limestone hills.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Erythroxylum kochummenii
Erythroxyleae
VU B1+2c
Malaysia (Peninsular Malaysia)
A very rare species, known only from three collections from Ulu Gombak Forest Reserve in Selangor, Merlimau Forest Reserve in Malacca and Ulu Lebir Forest Reserve in Kelantan. Stricter conservation measures are required to secure these populations.
Assessor: Chung, R.C.K.
Refs: 8464, 19073

Erythroxylum obtusifolium
Erythroxyleae
VU A1c, B1+2c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka. This species was found at 10 localities during the extensive National Conservation Review forest surveys.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195, 19112
Erythroxylum pacificum
Erythroxylaceae
Peru
A species from the coast in the department of Tumbes. It is known only from the type collection.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Erythroxylum schellerianum
Erythroxylaceae
Seychelles
A species with a widespread distribution within the Seychelles, occurring in rainforest on Mahé, Praslin, La Digue, Silhouette and several smaller islands. There are no obvious threats and populations appear to be healthy.
Assessor: World Conservation Monitoring Centre
Refs: 9859, 17229, 19023

Eschweilera alvimi
Lecythidaceae
Brazil (Alagoas, Bahia, Pernambuco)
A species which is found scattered in lowland rainforest in north-east Brazil.
Assessor: Pires O'Brien, J.
Refs: 3791, 5942, 7980, 9632

Eschweilera amazonicaformis
Lecythidaceae
Brazil (Amazonas)
A species which has been collected several times from non-flooded forest around Manaus. It is present in Ducke Forest Reserve, but elsewhere populations are under pressure from urban expansion and fires.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

Eschweilera amplexifolia
Lecythidaceae
Panama
The species is restricted to just three neighbouring localities of lowland semi-deciduous rainforest on the Atlantic side of Panama. The largest population occurs in Santa Rita, where increasing settlement of the area has destroyed much of the remaining forest. The same pressures are affecting the population along the highway from El Lano to Carti. A specimen collected in 1984 from Valle del Cauca in Colombia has also been included in this species.
Assessor: Mitre, M.
Refs: 3791, 7980, 16772

Eschweilera atropetiolata
Lecythidaceae
Brazil (Amazonas)
Although the species is restricted in range, occurring in non-flooded forest in the vicinity of Manaus, it is known from many localities, including the Ducke Forest Reserve.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

Eschweilera baguensis
Lecythidaceae
Peru
A medium-sized tree, relatively newly described. It is known only from the type locality of lower montane cloud forest, occurring between 1700 and 2100m in the department of Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

Eschweilera beebei
Lecythidaceae
Venezuela
Known only from Henri Pittier National Park, this cloud forest species has been collected about three times, each specimen probably from the same tree.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

Eschweilera bogotensis
Lecythidaceae
Colombia
A small tree of non-flooded forest from sea level to 1100m. About 10 collections have been taken from localities in Valle and Cundinamarca.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

Eschweilera boltenii
Lecythidaceae
Suriname, Venezuela
A small tree, known only from the type locality in the floodplain of the Zuid River in the Kayser Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

Eschweilera carinata
Lecythidaceae
Brazil (Amazonas)
This species is confined to non-flooded forest in south-central and south-west Amazonas.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

Eschweilera compressa
Lecythidaceae
Brazil (Rio de Janeiro)
Confined to non-flooded forests around Rio de Janeiro, the species range has been extensively reduced through urban expansion and exploitation.
Assessor: Pires O'Brien, J.
Refs: 3791, 5942, 7980, 9632

Eschweilera cyathiformis
Lecythidaceae
Brazil (Amazonas)
A canopy tree of non-flooded forest, known only from the vicinity of Manaus, including occurrences in INPA Biological Reserve and Ducke Forest Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980, 9632

Eschweilera fanshawei
Lecythidaceae
Guyana
This tree has been collected only once, in 1947, from an area of lowland non-flooded rainforest along the Bartica-Potaro road.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980
Eschweilera integraalyx
Lecythidaceae  VU B1+2c
Colombia
A large canopy or emergent tree, occurring commonly in
places, but collected rarely from Pacific coastal
Colombia in the departments of Chocó and Valle.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

Eschweilera jacquelyniae
Lecythidaceae  EN C1+2a
Panama
A species largely confined to cloud forest on the
summits of mountains in the Cordillera Central in
central-eastern Panama. In localised areas it may be
common, but on the whole it is not frequent. In Santa
Rita and along the road from El Llano to Cartí, in the
Kunayala Indigenous Reserve, a large part of the forest
has been destroyed. Small populations are protected in
Chagres National Park.
Assessor: Mitré, M.
Refs: 7980, 16772

Eschweilera longirachis
Lecythidaceae  DD
Costa Rica, Panama
The species is known from the type specimen taken
from Veraguas in 1974 and from a recent collection
from Costa Rica. Similar specimens in the area have
been identified as E. panamensis.
Assessor: Mitré, M.
Refs: 7980, 16772

Eschweilera mexicana
Lecythidaceae  VU A1c
Mexico (Oaxaca, Veracruz)
This rainforest tree is endemic to the Uxpanapa-
Chimalapa region, occurring in large but isolated
populations. The Chimalapa area still harbours large
tracts of relatively undisturbed forest, but is under
potential threat from proposed large-scale forestry and
development projects. Uxpanapa has suffered from
substantial habitat clearance for agriculture and
settlement in the government relocation scheme. This is
the only member of Lecythidaceae in Mexico.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 5651, 5993, 7980, 18150

Eschweilera obversa
Lecythidaceae  LR/cd
Brazil (Amazonas, Maranhão, Pará)
Populations are small but relatively widely scattered. An
occurrence is recorded in Jari Genetic Reserve.
Assessor: Pires O’Brien, J.
Refs: 3791, 5942, 7980, 9632

Eschweilera piresii ssp. piresii
Lecythidaceae  EN B1+2c
Brazil (Pará)
Currently known only from one location on the Belém–
Brasília highway, this tree of periodically flooded forest
has experienced serious habitat loss over the last two
decades.
Assessor: Pires O’Brien, J.
Refs: 3791, 7980, 9632

Eschweilera piresii ssp. viridipetala
Lecythidaceae  CR D1
French Guiana
This subspecies is known solely from the type locality in
lowland moist forest surrounding Saül. To date only two
individuals have been located.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

Eschweilera potaroensis
Lecythidaceae  DD
Guyana
A poorly known species, recorded only from the type
specimen, which was collected in 1943 from west-
central Guyana. More collections of flowering material
are needed to consolidate the taxonomy.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

Eschweilera punctata
Lecythidaceae  LR/nt
Brazil (Acre), Colombia
This species occurs in periodically flooded forests of the
Amazon in Acre and Colombia.
Assessor: Pires O’Brien, J.
Refs: 3791, 7980, 9632

Eschweilera rabeliana
Lecythidaceae  EN B1+2c, D1
Brazil (Amapá)
A species known only from the type locality in non-
flooded forest.
Assessor: Pires O’Brien, J.
Refs: 3791, 7980, 9632

Eschweilera rhododendrifolia
Lecythidaceae  VU D2
Brazil (Amazonas)
This species has been collected from the roadside in
non-flooded forests near Manaus. It is not known to
occur elsewhere.
Assessor: Pires O’Brien, J.
Refs: 3791, 7980, 9632

Eschweilera rimbachii
Lecythidaceae  VU B1+2c
Colombia, Ecuador
This species is known only from a few collections,
gathered in western Ecuador and south-west Colombia
from rainforest between 500 and 2000m.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980, 10965

Eschweilera rionegrense
Lecythidaceae  VU D2
Brazil (Amazonas)
This species is known from a single location in the upper
Rio Negro basin.
Assessor: Pires O’Brien, J.
Refs: 3791, 7980, 9632

Eschweilera Rodriguesiana
Lecythidaceae  VU D2
Brazil (Amazonas)
A species of non-flooded forest known only from the
vicinity of Manaus. It occurs in the Ducke Forest
Reserve.
Assessor: Pires O’Brien, J.
Refs: 3791, 7980, 9632

Species Summaries
**Eschweilera roraimensis**

Lecythidaceae  
VU D2  
Brazil (Roraima), Venezuela  
A canopy tree, unusual in the genus in occurring at submontane elevation. It has only been collected from cloud forest between 700 and 1500m on the Serra Parima.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 3791, 7980, 9632

**Eschweilera sclerophylla**

Lecythidaceae  
VU B1+2c  
Colombia  
A medium-sized tree, known from a few localities of lowland non-flooded forest in the departments of Valle and Chocó.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3791, 7980

**Eschweilera squamata**

Lecythidaceae  
VU D2  
French Guiana  
A canopy or emergent tree of non-flooded forest, endemic to French Guiana. It has been collected from two localities, one being in Sail.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3791, 7980

**Eschweilera subcordata**

Lecythidaceae  
VU D2  
Brazil (Pará)  
The species has been collected twice from forest margin and savanna areas on Marajó Island. It is not known elsewhere.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 3791, 7980, 9632

**Eschweilera tetrapetala**

Lecythidaceae  
VU D2  
Brazil (Bahia)  
So far the species is known from three populations in non-flooded forests and roadsides in southern Bahia.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 3791, 5942, 7980, 9632

**Eschweilera venezuelica**

Lecythidaceae  
VU B1+2c  
Venezuela  
A small tree, restricted to the lowland forest on the Caribbean slopes of the mountains of north-central Venezuela, from where it has been collected about four times.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3791, 7980

**Esenbeckia alata**

Rutaceae  
EN B1+2c  
Colombia  
Endemic to Colombia, the species is restricted to Cundinamarca, Tolima and Valle.  
**Assessor:** Calderon, E.  
**Refs:** 19069

**Esenbeckia berlandieri** ssp. *litoralis*

Rutaceae  
EN C2a  
Costa Rica, El Salvador, Honduras, Nicaragua, Panama  
A lowland tree of dry rocky hillsides.  
**Assessor:** Nelson, C.  
**Refs:** 13995

**Esenbeckia letocarpa**

Rutaceae  
VU A1cd  
Brazil (Bahia, Goiás, Mato Grosso do Sul, Rio de Janeiro, São Paulo)  
The habitat of this species has been greatly reduced because of massive forest conversion over the last century for agriculture, livestock and plantations. The heavy, decay-resistant wood is of commercial value and the last stands are gradually being cut down.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4506, 7980

**Esenbeckia pentaphylla** ssp. *australensis*

Rutaceae  
VU B1+2c  
Colombia, Panama  
**Assessor:** Calderon, E.  
**Refs:** 7980, 19069

**Esenbeckia pentaphylla** ssp. *pentaphylla*

Rutaceae  
LR/nt  
Jamaica  
The Jamaican subspecies of a Central American taxon, occurring in woodlands, most commonly in the western parishes.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Eucalyptopsis papuana**

Myrtaceae  
LR/nt  
Indonesia (Irian Jaya, Moluccas), Papua New Guinea  
This tree is locally common, sometimes forming pure stands, in scattered areas of rainforest up to 1300m. It occurs in a small patch on Woodlark Island, in the headwaters of the Watut River in the Morobe province and in lower montane forest in the Western and East Sepik provinces. The species has been logged and exported from Woodlark Island and occurs in areas subject to further exploitation.  
**Assessor:** Eddowes, P.J.  
**Refs:** 19114

**Eucalyptus morrisbyi**

Myrtaceae  
EN B1+2ce  
Australia (Tasmania)  
Only four stands survive, all in southern Tasmania, largely on private land. Calverts Hill harbours the largest population of 2000 trees. East Risdon Nature Reserve has fewer than 20 trees and the other populations are small and near roads. Agricultural expansion is the main reason for the species' decline.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17200

**Eucalyptus recurva**

Myrtaceae  
CR D1  
Australia (New South Wales)  
A shrub known only from two localities near Mongarlowe in New South Wales. Apparently six individuals remain and are genetically very similar. The species has proved very difficult to cultivate.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17200

**Euchorium cubense**

Sapindaceae  
EN B1+2c  
Cuba  
A monotypic genus endemic to the deepely eroded 'haystack' karstic hills of Viales in the limestone range.
of Sierra de Los Organos, Pinar del Rio Province.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 11403, 18485, 19149

### Euclea balfouri
**Ebenaceae**
Yemen (Socotra)
This is likely to be taxonomically indistinct from *E. laurina*. Both species are endemic to Socotra and scattered in montane and submontane vegetation in both granite and limestone areas. There are no immediate threats to populations.

**Assessor:** Miller, A.G.
**Refs:** 2354, 19083

### Euclea laurina
**Ebenaceae**
Yemen (Socotra)
This is likely to be taxonomically indistinct from *E. balfouri*. Both species are endemic to Socotra and scattered in montane and submontane vegetation in both granite and limestone areas. There are no immediate threats to populations.

**Assessor:** Miller, A.G.
**Refs:** 2354, 19083

### Eucommia ulmoides
**Eucommiaceae**
China (Anhui, Gansu, Guizhou, Henan, Hunan, Jiangxi, Shanxi, Sichuan, Zhejiang)
A species of a monotypic family, known from scattered populations occurring over a relatively wide range, altitudinally, ecologically and geographically. Its range is not clearly defined because it has been widely utilised and cultivated for the medicinal properties of its bark. Plantations are being established with some difficulties.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1818, 11847

### Eucryphia cordifolia
**Eucryphiaceae**
Argentina, Chile (Biobio, La Araucania, Los Lagos)
A highly exploited species of broadleaved evergreen forest. The largest populations are in Chile and are considered to be under some threat because of the tree’s use as the major source of fuelwood and charcoal for southern Chile. The species is also used as a timber and in the tannery industry.

**Assessor:** Gonzalez, M.
**Refs:** 11140, 13947, 16328

### Eucryphia glutinosa
**Eucryphiaceae**
Chile (Biobio, La Araucania, Maule)
Occurring at riversides or in swampy areas, the species occupies a relatively small area of subandean forest in central Chile. It does not appear to be common or well known.

**Assessor:** Gonzalez, M.
**Refs:** 4893, 7980, 16328

### Eugenia abbreviata
**Myrtaceae**
Jamaica
The species is apparently scarce, occurring in Westmoreland, Manchester and St Catherine. The most recent collection was taken in 1965 from an area of damp thicket at the base of a wooded limestone hill.

**Assessor:** Kelly, D.L.
**Refs:** 401, 5653, 7980, 19085

### Eugenia aboukirensis
**Myrtaceae**
Jamaica
This species appears to be known only from the vicinity of Aboukirk in St Ann Parish, where it occurs in woodland on a rocky limestone hilltop.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 5653, 7980

### Eugenia aceitillo
**Myrtaceae**
Cuba
An endemic tree confined to dry evergreen forest on the limestone terraces of Cabo Cruz in Granma Province. The species is very uncommon and parts of Cabo Cruz have been degraded by logging and cutting.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 11403, 18485, 19149

### Eugenia acunai
**Myrtaceae**
Cuba
A shrub or small tree locally restricted to the rainforests of Loma del Gato in the province of Santiago de Cuba.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 11403, 18485, 19149

### Eugenia acutisepala
**Myrtaceae**
Jamaica
A small tree or shrub found only in the parish of St Catherine, where it is confined to wooded limestone hills.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 5653, 7980

### Eugenia acutilissima
**Myrtaceae**
Cuba
An imperfectly known species, described from a specimen without flowers and fruits. It is a small tree, apparently restricted to the type locality, Toscano in Pinar del Rio Province. Much of the area has been cleared for settlement and agriculture. No recent collections have been made.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 11403, 18485, 19149

### Eugenia amoena
**Myrtaceae**
Sri Lanka
Apparently restricted to the lowland wet evergreen forests of Ratnapura District, the species was found in six sites during the extensive forest surveys of the National Conservation Review. Asian *Eugenia* are now included in *Syzygium*.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 15431, 17195, 19112
**Eugenia amplifolia**  
Myrtaceae  
Jamaica  
A shrub or small tree, uncommon and confined to areas of woodland on limestone hillsides.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Eugenia arianae**  
Myrtaceae  
Brazil  
The species is known only from the type collection.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 19097

**Eugenia bayentensis**  
Myrtaceae  
Cuba  
Known only from a few localities on karstic hills and limestone plateaux, this uncommon shrub or small tree occurs on the border of Santiago de Cuba with Holguin.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 11403, 18485, 19149

**Eugenia benjamina**  
Myrtaceae  
Malaysia (Peninsular Malaysia)  
Found only in hill and montane forest in Perak, this tree is threatened by the increasing settlement of the area. It is hoped the species is present in the protected forest reserves. **Asian Eugenia** are now included in Syzygium.  
**Assessor:** Kochummen, K.M.  
**Refs:** 8464, 19073

**Eugenia bojeri**  
Myrtaceae  
Mauritius  
A species which has only recently been rediscovered since the 1960s, when the single known individual died. A total of two trees have been found in the last two years in a single locality of cloud forest on the southern slopes of Mount Cocotte. They are being closely monitored.  
**Assessor:** Page, W.  
**Refs:** 1411, 9120, 16426

**Eugenia brachythrix**  
Myrtaceae  
Jamaica  
A tree confined to submontane forest in the western Blue Mountains. It has been reported from the headwaters of the Mabess River and also, very rarely, from the Grand Ridge.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980, 12564

**Eugenia brownei**  
Myrtaceae  
Jamaica  
Only known from the parish of St Elizabeth, the species is very localised along riverbanks at sea level.  
**Assessor:** Kelly, D.L.  
**Refs:** 401, 5653, 7980, 19085

**Eugenia burkilliana**  
Myrtaceae  
Malaysia (Peninsular Malaysia)  
Confined to the lowland forests of Perak, this tree is known only from a few collections in an area which is experiencing forest clearance and increasing agriculture. **Asian Eugenia** are now included in Syzygium.  
**Assessor:** Kochummen, K.M.  
**Refs:** 8464, 19073

**Eugenia calcadensis**  
Myrtaceae  
India (Tamil Nadu)  
Collections have been made from areas of evergreen forest along the Tamil Nadu/Kerala border at the southern end of the Western Ghats. **Asian Eugenia** are now included in Syzygium.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Eugenia camptophylla**  
Myrtaceae  
Malaysia (Peninsular Malaysia)  
A species known only by a single collection from Gopeng District in Perak gathered in the 18th century. It is unknown whether the species exists today. **Asian Eugenia** are now included in Syzygium.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8464, 19073

**Eugenia caudata**  
Myrtaceae  
Malaysia (Peninsular Malaysia)  
Confined to montane forest between 600 and 1500m, the species has been reported from Penang, Perak, Selangor and Pahang. Despite montane forest being considered protected by the government, increasing developments in the region are threatening the species. **Asian Eugenia** are now included in Syzygium.  
**Assessor:** Kochummen, K.M.  
**Refs:** 8464, 19073

**Eugenia colipensis**  
Myrtaceae  
Mexico (Chiapas, Oaxaca, Veracruz)  
Endemic to the Gulf region, the species occurs in remaining rainforest, ranging as far north as northern Veracruz.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5993

**Eugenia conglomerata**  
Myrtaceae  
Malaysia (Peninsular Malaysia), Singapore  
A rare tree of lowland rainforest known only from three collections from Selangor, Malacca and Johore. The species is threatened by increasing settlement and agriculture. **Asian Eugenia** are now included in Syzygium.  
**Assessor:** Kochummen, K.M.  
**Refs:** 9199, 11647, 19073

**Eugenia cordifoliolata**  
Myrtaceae  
Malaysia (Peninsular Malaysia)  
A tree known only from the type locality in Perak. The exact location has not been recorded. **Asian Eugenia** are now included in Syzygium.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8464, 19073
Eugenia cotinifolia ssp. Codyensis
Myrtaceae  EN B1+2c
India (Karnataka, Kerala, Tamil Nadu)
This subspecies is known only from a single collection in the south of Karnataka, an additional collection, imprecisely located in the Nilgiris, and a record from the Agastya Malai Hills. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Eugenia coryolensis
Myrtaceae  CR C2b
Honduras
A species of the dry Atlantic lowlands. There are doubts surrounding the nomenclature.
Assessor: Nelson, C.
Refs: 13995

Eugenia crassicaulis
Myrtaceae  EN B1+2c
Jamaica
Endemic to Portland, the species occurs at altitudes of 600–900m. Much of the habitat has been affected by forestry activities and logging.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Eugenia crenata
Myrtaceae  VU B1+2c
Jamaica
A shrub or small tree found uncommonly on steep wooded hillsides in Manchester, St Andrew and St Thomas Parishes. It may represent a form of E. harrisii. The habitat in the latter two parishes has been almost completely cleared or severely degraded.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 19116

Eugenia cyrthophylla
Myrtaceae  VU D2
Malaysia (Peninsular Malaysia)
Although the species is known only from a single collection in Gunong Tahan in Pahang, it is expected to be locally frequent at the type locality within Taman Negara National Park. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Eugenia daenikeri
Myrtaceae  EN B1+2c
New Caledonia
Asian Eugenia are now contained within Syzygium.
Assessor: Jaffré, T. et al.
Refs: 10351

Eugenia discifera
Myrtaceae  EN B1+2c
India (Kerala, Tamil Nadu)
Known from two locations, Chimunji and the Sethur Hills, the species occurs very sparsely in evergreen forest between 1300 and 1400m. The location in the Sethur Hills has been converted into cardamom plantations. Asian Eugenia are now contained within Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 1237, 2538, 19144

Eugenia discors
Myrtaceae  VU D2
Peru
A species known only from its type collected in San Martin Department.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Eugenia eperforata
Myrtaceae  EN B1+2c
Jamaica
A tree of wooded limestone hillsides, found only in St Ann Parish.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653

Eugenia ericoides
Myrtaceae  VU B1+2c
New Caledonia
Asian Eugenia are now contained within Syzygium.
Assessor: Jaffré, T. et al.
Refs: 10351

Eugenia erithrophylla
Myrtaceae  LR/nt
South Africa (Eastern Cape, KwaZulu-Natal)
A coastal forest species confined to sandstone formations in southern KwaZulu-Natal and the Pondoland area of the Eastern Cape, usually found in rocky situations near streams or along the upper edge of sandstone cliffs. It is recorded in two provincial nature reserves, a local authority reserve and a number of demarcated forests. The latter forest patches do not receive as much protection as they did prior to 1994, and they are increasingly being used as a source of firewood and timber. Some forest patches are also threatened by expanding settlement.
Refs: 689, 19218

Eugenia excisa
Myrtaceae  EN B1+2c
Cuba
A small tree confined to the karstic hill complex of Sierra de Nipe on the border of Santiago de Cuba and Holguin Provinces. Habitat degradation has occurred in the accessible areas.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Eugenia flocosa
Myrtaceae  EN B1+2c
India (Tamil Nadu)
A forest tree endemic to the Agastya Malai Hills in southern India. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries. Asian Eugenia are now contained within Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 10733, 19144

Eugenia fulva
Myrtaceae  VU A1c, B1+2c
Sri Lanka
This species was found at nine localities during the extensive National Conservation Review forest surveys.

Species Summaries
Asian *Eugenia* are now included in *Syzygium*.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796, 19112

**Eugenia gageana**
Myrtaceae  
CR B1+2c
Malaysia (Peninsular Malaysia)
The single collection of this species, made last century, is probably from Maxwell’s Hill in Taiping. The hill is now being developed into a resort area. Asian *Eugenia* are now included in *Syzygium*.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Eugenia gatopensis**
Myrtaceae  
VU B1+2c
New Caledonia
Asian *Eugenia* are now contained within *Syzygium*.
Assessor: Jaffré, T. et al.
Refs: 10351

**Eugenia glabra**
Myrtaceae  
EN B1+2c
Sri Lanka
A species found at only three localities during the extensive forest surveys carried out for the National Conservation Review. Asian *Eugenia* are now included in *Syzygium*.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796, 19112

**Eugenia goniocalyx**
Myrtaceae  
VU D2
Malaysia (Peninsular Malaysia)
A tree confined to montane forest at about 1500m in the Cameron Highlands and Fraser’s Hill, Pahang. Both localities are hill stations which are being developed. However, it is likely the species occurs in the high-altitude protected forests. Asian *Eugenia* are now included in *Syzygium*.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Eugenia haematocarpa**
Myrtaceae  
EN D1
Puerto Rico
The main population occurs in two colonies, totalling 50–100 plants, in submontane rainforest in El Verde. A population of about nine adults is found at the edge of Canite forest. There are no obvious threats to the El Verde colonies.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124, 17540

**Eugenia haniffii**
Myrtaceae  
VU D2
Malaysia (Peninsular Malaysia)
A tree scattered in moist hill forest between 300 and 450m in parts of Penang and Selangor. Both localities are under plans for development. Asian *Eugenia* are now included in *Syzygium*.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Eugenia hanoverensis**
Myrtaceae  
CR B1+2c
Jamaica
This species is confined to Hanover Parish, where it was collected in 1965 from a glade between limestone hills west of Hillsbrook.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Eugenia harrisi var. grandifolia**
Myrtaceae  
CR B1+2c
Jamaica
The locality of this variety is unconfirmed. It was last reported in Egnor Gap in 1893. The species as a whole is local in distribution and confined to Jamaica.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Eugenia harrisi var. harrisi**
Myrtaceae  
VU B1+2c
Jamaica
A tree confined to the Blue Mountains, where it occurs occasionally to commonly on wooded slopes below 1650m, mostly in the southern catchments, where the disturbance from encroaching agriculture has been most severe.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12564

**Eugenia heterochroa**
Myrtaceae  
VU B1+2c
Jamaica
Known only from the parish of Clarendon, the species occurs on wooded rocky limestone hilltops at about 760m.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

**Eugenia hexovalata**
Myrtaceae  
VU D2
Peru
Occurring in forest up to 1500m, the species is known only from its type collected in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Eugenia hypoleuca**
Myrtaceae  
EN B1+2c
Sri Lanka
A tree recorded only twice in a single locality in Knuckles State Forest, which covers 300km², during the extensive forest surveys by the National Conservation Review. Asian *Eugenia* are now included in *Syzygium*.
Assessor: World Conservation Monitoring Centre
Refs: 19112

**Eugenia indica**
Myrtaceae  
EN B1+2c
India (Tamil Nadu)
An understory tree of evergreen forest, known from single records from three different locations at the southern end of the Western Ghats. Asian *Eugenia* are now included in *Syzygium*.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Eugenia insignis**
Myrtaceae  
CR B1+2c
Sri Lanka
A tree restricted to lowland rainforest in south-west Sri Lanka. Previously recorded in Sinharaja and Haycock Biosphere Reserves, this extremely rare species was not found during the extensive forest surveys conducted for the National Conservation Review, suggesting that it
might be extinct. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 17195, 19112

*Eugenia isosticta*
Myrtaceae  LR/nt
Jamaica
This is an uncommon species found on lowland wooded limestone hillsides.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

*Eugenia johorensis*
Myrtaceae  EN B1+2c
Malaysia (Peninsular Malaysia)
A very rare tree known from a single collection from moist submontane forest on Gunong Pulai. This area is being developed into a holiday resort. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

*Eugenia jutilapensis*
Myrtaceae  DD
El Salvador, Guatemala
Restricted to the Pacific coast, the species occurs in lowland forest. It is recorded in El Imposible National Park in El Salvador. The habitat has been widely logged and also affected by tourism and industrial developments in places. More information is needed on the Guatemalan populations.
Assessor: World Conservation Monitoring Centre
Refs: 4862, 4974, 19030

*Eugenia kaalensis*
Myrtaceae  VU B1+2c
New Caledonia
Asian Eugenia are now contained within Syzygium.
Assessor: Jaffré, T. *et al.*
Refs: 10351

*Eugenia kellyana*
Myrtaceae  CR B1+2c
Jamaica
The species has been reported in recent years from two localizations, Hog House Hill and Holland Mountain, in submontane forest on limestone in the John Crow Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

*Eugenia klossii*
Myrtaceae  CR B1+2c
Malaysia (Peninsular Malaysia)
A tree known from a single collection from lowland rainforest in Rantau Panjang in Selangor. The present existence of the collection locality is doubtful and the species may be extinct. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

*Eugenia koolauensis*
Myrtaceae  EN C2a, D1
USA (Hawaii)
A small tree which, in the past, has been collected from lowland dry forest in the north of the Koolau Mountains on Oahu and from Maunaloa on Molokai. The only extant populations are now restricted to Oahu, the Molokai populations being replaced by fields of pineapples. Fewer than 220 individuals now remain in eight populations in the Koolau Mountains, where they are threatened mainly by the destructive activities of feral pigs and by invasions of introduced plants. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19041, 19168

*Eugenia lamprophylla*
Myrtaceae  VU B1+2c
Jamaica
Confined to areas of woodland on rocky hillsides along the base of limestone cliffs, this tree is uncommon in a habitat that is constantly vulnerable to cutting.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

*Eugenia lancetillae*
Myrtaceae  CR C2b
Honduras
Endemic to the wet Atlantic lowlands of Honduras, the species has a rare occurrence in Lancetilla Biological Reserve.
Assessor: Nelson, C.
Refs: 4974, 13995

*Eugenia laurae*
Myrtaceae  EN B1+2c
Jamaica
A Cockpit Country endemic, known from localities in Trelawny and Clarendon Parishes. The woodland in Warsop, where the type specimen was collected, has been severely degraded and attempts to find the species have failed.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

*Eugenia linocieroides*
Myrtaceae  LR/nt
Malaysia (Peninsular Malaysia), Singapore
The collection localities of this lowland rainforest tree are being developed for agriculture and settlement. It is expected the species will be found in the nearby production forest reserves in Perak and Selangor. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 9199, 19073

*Eugenia longicuspis*
Myrtaceae  VU D2
Peru
An Amazon forest species known only from the type collection taken from the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

*Eugenia mabaeoides ssp. mabaeoides*
Myrtaceae  EN B1+2c
Sri Lanka
The species as a whole was found in only five forest sites during the extensive surveys carried out for the National Conservation Review. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17759, 19112
Eugenia mabaeoides ssp. pedunculata
Myrtaceae EN B1+2c
Sri Lanka
The species as a whole was found in only five forest sites during the extensive surveys carried out for the National Conservation Review. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796

Eugenia mackeeana
Myrtaceae VU B1+2c
New Caledonia
Asian Eugenia are now contained within Syzygium.
Assessor: Jaffré, T. et al.
Refs: 10351

Eugenia mandevillensis var. mandevillensis
Myrtaceae VU B1+2c
Jamaica
A shrub or small tree confined to areas of woodland on limestone hillsides in Manchester Parish.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Eugenia mandevillensis var. perratonii
Myrtaceae VU B1+2c
Jamaica
Slightly more widespread than the type variety, this taxon occurs in St Catherine and St Elizabeth, where it is uncommon and confined to woodland on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Eugenia marchiana
Myrtaceae LR/nt
Jamaica
In the western Blue Mountains, the species is scattered but moderately common in submontane rainforest, especially on steep slopes in the relatively extensive forests of the northern catchments.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 19116

Eugenia mexicana
Myrtaceae VU A1c
Mexico (Chiapas, Oaxaca, Veracruz)
Endemic to the Gulf region, the species occurs in remaining rainforest, ranging as far north as northern Veracruz.
Assessor: World Conservation Monitoring Centre
Refs: 3467, 5993

Eugenia micranthoides
Myrtaceae VU D2
Peru
Known only from the type collection, this species occurs in Amazon forest in the Loreto Department.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Eugenia microcarpa
Myrtaceae VU B1+2acd
Brazil (Espírito Santo, Rio de Janeiro)
A rarely occurring species of Atlantic forest. It is recorded from only two states.
Assessor: Pires O’Brien, J.
Refs: 19097

Eugenia millsii
Myrtaceae EN C2b
Malaysia (Peninsular Malaysia)
Although scattered and rare in lowland rainforest in Kedah, Pahang and Selangor, the species does not yet qualify as threatened. It is hoped there are populations within the production forest reserves of these states. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia mozombensis
Myrtaceae EN C2b
Mexico (Veracruz)
This shrub or small tree is now confined to a single locality near Mozomboa in the Sierra de Manuel Diaz, where about 500 individuals survive on rocky shallow soils. The only evident regeneration is vegetative from stolons. There is great interest in the species as an ornamental and cuttings have been propagated at Xalapa Botanic Garden.
Assessor: Vovides, A.P.
Refs: 19206

Eugenia myriantha
Myrtaceae DD
Malaysia (Peninsular Malaysia)
This species is known by a single collection from Perak, probably from hill forest, made during the last century. It is uncertain whether the species still exists. The exact locality has not been specified. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia ngadimaniana
Myrtaceae VU B1+2c
Malaysia (Peninsular Malaysia), Singapore
A tree confined to freshwater swamp and lowland forest in Kelantan and Johore. The species’ localities are vulnerable to development, especially the swamp forests of Johore which are being rapidly settled. It is possible a population exists in the productive forest reserves in Kelantan. Asian Eugenia are now included in Syzygium.
Assessor: Chua, L.S.L.
Refs: 9199, 19073, 19182

Eugenia nicholsii
Myrtaceae EN B1+2c
Jamaica
A poorly known species of Portland and St Andrews Parishes. Populations are found at an altitude of about 1500m, where they are largely safe from high levels of disturbance and human activity.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Eugenia nitidula
Myrtaceae LR/nt
Malaysia (Peninsular Malaysia)
A locally abundant tree confined to montane forest on Gunong Ines, Perak and the Cameron Highlands and Fraser’s Hill, Pahang. The expansion of agriculture and settlement both threaten the habitat. Populations are expected to be found in protected forest reserves in Perak and Pahang. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073
Eugenia noumeensis
Myrtaceae
New Caledonia
A species of sclerophyllous forest. It is known from only a few locations and its habitat is severely threatened by fires, grazing and encroaching agriculture. Asian Eugenia are now contained within Syzygium.
Assessor: Jaffré, T. et al.
Refs: 4492, 10351

Eugenia orites
Myrtaceae
LR/cd
Malaysia (Peninsular Malaysia)
A montane forest tree, restricted to Gunung Tapis, Pahang, and Gunung Belumut, Johore, at 900m. The habitat is generally threatened by the development of resorts, but some areas are given a degree of protection within protected forests. Asian _Eugenia_ are now included in _Syzygium_.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia pachychlamys
Myrtaceae
DD
El Salvador, Guatemala
A shade-loving tree which, in El Salvador, is confined to Chalatenango in upland habitats from closed forest to pastureland. More information is needed on the Guatemalan population. The fruits are edible and both livestock and humans are believed to help in seed dispersal.
Assessor: World Conservation Monitoring Centre
Refs: 4862, 4974, 19030

Eugenia pahangensis
Myrtaceae
LR/cd
Malaysia (Peninsular Malaysia)
Occurring in montane and alpine forest, this tree is known only from Fraser's Hill and Gunung Tahan, Pahang, at about 1500m. The species is protected in Taman Negara National Park. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia pallidula
Myrtaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
This species is very rare, known only from a few collections from Perak and Pahang. It occurs in areas of lowland rainforest, which are threatened by encroaching agriculture and increasing settlement. The area around Pondok Tanjong Forest Reserve in Perak, where a collection has been made, is now fully developed. It is hoped that the population here has survived along with a second population located along the banks of Semarang River near Temerloh, Pahang. Asian Eugenia are now included in Syzygium.
Assessor: Chua, L.S.L.
Refs: 8464, 19073, 19182

Eugenia pearsoniana
Myrtaceae
LR/cd
Malaysia (Peninsular Malaysia)
A tree of lowland and hill rainforest, recorded from Maxwell's Hill, Perak, and Gunong Panti, Johore. Both localities are now ecotourist destinations and as such it is hoped these forests will be preserved. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia plumbea
Myrtaceae
VU D2
Malaysia (Peninsular Malaysia)
A single collection of this species was made in submontane rainforest on Gunong Batu Puteh in Perak. The locality is thought to be contained within the protected forests of Perak State. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Eugenia polypora
Myrtaceae
CR B1+2c
Jamaica
A tree of up to 20m, confined to a small area on the Dolphin Head.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Eugenia porphyrantha
Myrtaceae
VU D2
Malaysia (Peninsular Malaysia)
A tree of lowland and hill rainforest, known from Bukit Kutu, Selangor, and Raka Hill Forest Reserve, Pahang. Both localities lie within the boundaries of protected forest reserves. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Eugenia praestigiosa
Myrtaceae
DD
Malaysia (Peninsular Malaysia)
A lowland rainforest species, known only from a single collection from Perak. The exact locality is unknown. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 3467, 8464, 19073

Eugenia prasina
Myrtaceae
VU B1+2acd
Brazil (Rio de Janeiro)
Assessor: Fries O'Brien, J.
Refs: 19097

Eugenia pseudoclaviflora
Myrtaceae
VU D2
Malaysia (Peninsular Malaysia)
A lowland rainforest tree known only from a single collection gathered along the track to Gunong Tahan in Taman Negara National Park. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Eugenia pycnoneura
Myrtaceae
EN B1+2c
Jamaica
Endemic to the John Crow Mountains in Portland, the species is uncommon and confined to areas of montane forest at about 1000m.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980
Eugenia quadrata
Myrtaceae VU D2
Malaysia (Peninsular Malaysia)
Confined to a single locality, this species was found in
Larut in Maxwell’s Hills, Perak. This area, although
protected as a nature reserve and water catchment, is
under development as a resort. Asian Eugenia are now
included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 17140, 19073

Eugenia rendeli
Myrtaceae CR B1+2c
Jamaica
Confined to parts of the John Crow Mountains in St
Thomas Parish, the species is uncommon and restricted
to remaining areas of moist forest at about 500m.
Almost all of the forest in this parish have been
destroyed or severely degraded.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980, 19116

Eugenia rheophytica
Myrtaceae CR B1+2c
Sri Lanka
During the extensive National Conservation Review
forest surveys, only one individual was found in a single
forest site in Ratnapura District. Asian Eugenia are now
included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Eugenia rhomboidea
Myrtaceae VU D2
Malaysia (Peninsular Malaysia)
This tree is known from a single collection from Gumung
Mengkueng in Selangor; it was found in moist montane
forest at 1300m. The locality is within a protected forest.
Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Eugenia rivalorum
Myrtaceae VU A1c
Sri Lanka
During the extensive National Conservation Review
forest surveys, this species was found in 13 localities.
Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796, 19112

Eugenia rostodonis
Myrtaceae DD
Malaysia (Peninsular Malaysia)
A species known only from a single collection from
Terengganu. Its exact locality is unknown. Asian
Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia rotterianana
Myrtaceae VU B1+2c
India (Tamil Nadu)
A small tree, known largely from field data and a few
collections, occurring along the Tamil Nadu/Kerala
border in submontane evergreen forest. Asian Eugenia
are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Eugenia rotundata
Myrtaceae VU A1c, B1+2c
Sri Lanka
During the extensive National Conservation Review
forest surveys, this species was found in seven sites.
Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17859, 19112

Eugenia rufa-fulva
Myrtaceae VU A1c
Sri Lanka
During the extensive National Conservation Review
forest surveys, this species was found in 14 localities.
Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796, 19112

Eugenia sachetae
Myrtaceae EN B1+2c
Jamaica
Occurring only in Trelawny, the species is known from
populations found on wooded limestone hills, between
450 and 600m.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Eugenia salamancana
Myrtaceae DD
Panama
Known only from the type collection of 1938, the species
remains poorly known. Other taxa of the same genus
have been collected in the same area.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Eugenia salamensis
Myrtaceae EN C2a
Costa Rica, El Salvador, Honduras, Mexico, Nicaragua
A species of moist wooded ravines or rocky hills and
dense wet mixed forest at medium to high altitudes. It
may be divided up into subspecies.
Assessor: Nelson, C.
Refs: 8100, 13995

Eugenia scalarinervis
Myrtaceae CR B1+2c
Malaysia (Peninsular Malaysia)
A lowland forest tree known by a few collections in two
separate localities in Perak. The species is threatened by
encroaching agriculture but it is expected to be found in
permanent forest reserves. Asian Eugenia are now
included in Syzygium.
Assessor: Chua, L.S.L.
Refs: 8464, 19073, 19182

Eugenia schulziana
Myrtaceae VU B1+2c
Jamaica
A small tree confined to wooded banks and hillsides in
Hanover and Westmoreland Parishes.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653
Eugenia schunkei
Myrtaceae VU D2
Peru
Known only from the type collection, the species occurs in Amazon forest in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Eugenia setosa
Myrtaceae VU B1+2c
Malaysia (Peninsular Malaysia)
Confined to Perak and Selangor, this tree occurs in peat-swamp forest and sometimes in freshwater swamps. Since the peat-swamp forests are no longer being converted for agriculture, the species is considered to be less threatened than in the past. Asian Eugenia are now included in Syzygium.
Assessor: Chua, L.S.L.
Refs: 17140, 19073, 19182

Eugenia singampattiana
Myrtaceae CR A1c
India (Tamil Nadu)
The only collections of the species were made over 100 years ago in the Singampatti and Papanasam Hills. Dam construction at the latter locality and clearing for tea and other plantations at the former may have destroyed both populations. The species may now be extinct. Asian Eugenia are now placed within the genus Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 2538, 19144

Eugenia trinodora
Myrtaceae EN B1+2c
Sri Lanka
During the extensive National Conservation Review forest surveys, only five individuals were found in the Peak Wilderness Wildlife Sanctuary. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Eugenia sulpicenina
Myrtaceae EN B1+2c
Jamaica
This small tree was known to occur in montane forests at about 1200m in St Andrew Parish. Almost all the forest below 1400m has been cleared or severely degraded.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980, 19116

Eugenia swettenhamiana
Myrtaceae VU D2
Malaysia (Peninsular Malaysia)
A single herbarium specimen of this species exists, collected from lowland forest in Gunung Pondok, Perak. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Eugenia tabouensis
Myrtaceae VU B1+2c
Côte d'Ivoire
An endemic to lowland evergreen forests of Côte d'Ivoire. It is known solely from remaining forested areas between the rivers of Sassandra and Cavally, largely contained within Tai National Park. Over the last few decades the effects of logging have been extensive. An influx of people into the area also threatens the integrity of the forest.
Assessor: Assi, A.
Refs: 2773, 12822

Eugenia tahanensis
Myrtaceae LR/cd
Malaysia (Peninsular Malaysia)
A tree confined to montane forest in Gunung Tahan in Pahang. The area is protected within Taman Negara National Park. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia taipingensis
Myrtaceae EN B1+2c
Malaysia (Peninsular Malaysia)
Found in lowland forest in Taiping, the only known locality of this species has probably been cleared for agriculture and human habitation. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia tecta
Myrtaceae LR/cd
Malaysia (Peninsular Malaysia)
Mainly occurring in the mountain forests of Perak and Pahang, the exact range of this species is uncertain as it is poorly represented in herbarium collections. However, the mountain forests are considered protected. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia tekuanensis
Myrtaceae LR/cd
Malaysia (Peninsular Malaysia)
This lowland tree is known only from Kuala Teku in Pahang, where it is contained within a national park. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia terpophylla
Myrtaceae EN B1+2c
Sri Lanka
A tree restricted to lowland rainforest in south-west Sri Lanka. During the extensive National Conservation Review forest surveys, this species was found at three localities. Asian Eugenia are now included in Syzygium.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 19112

Eugenia tiuamensis
Myrtaceae VU B1+2c
Malaysia (Peninsular Malaysia)
The species is known only from two collections from Pulau Tioman. The island is developing rapidly into a tourist resort. Asian Eugenia are now included in Syzygium.
Assessor: Chua, L.S.L.
Refs: 8464, 19073, 19182
Eugenia umberwunensis
Myrtaceae  VU D2
South Africa (Eastern Cape, KwaZulu-Natal)
A coastal forest species confined to sandstone formations in southern KwaZulu-Natal and the Pondoland area of the Eastern Cape, usually found on forest margins but very scarce and scattered in occurrence. It is not encountered as frequently as E. erythrophylila and regeneration appears to be poor, although the seed set is viable. There are protected populations in at least two nature reserves and two demarcated forests. In places, it is threatened by cutting for firewood and timber, and increasing settlement.
Refs: 689, 19218

Eugenia uexpanensis
Myrtaceae  EN A1c, B1+2c
Mexico (Veracruz)
A species confined to rainforest in the Uxpanapa region of Veracruz. The habitat is greatly reduced through deforestation and clearance for crops, especially in the south where there are deep soils.
Assessor: World Conservation Monitoring Centre
Refs: 3905, 5651, 5993

Eugenia verdeoniae
Myrtaceae  LR/nt
South Africa (Eastern Cape, KwaZulu-Natal)
A coastal forest species and attractive ornamental tree, confined to sandstone formations in southern KwaZulu-Natal and the Pondoland area of the Eastern Cape. It is found on forest margins and in the open on the banks and islands of some of the larger rivers, where in places it is locally common. There are recorded populations within three nature reserves and a few demarcated forests, but threats of increasing settlement and cutting for firewood and timber continue to put pressure on these remaining forest patches.
Refs: 689, 19218

Eugenia virgultosa
Myrtaceae  LR/nt
Jamaica
A widespread common component of most forest types confined to the Blue Mountains and John Crow Mountains. Two varieties have been described but they commonly intergrade.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 19116

Eugenia viroii
Myrtaceae  VU B1+2c
New Caledonia
Asian Eugenia are now contained within Syzygium.
Assessor: Jaffré, T. et al.
Refs: 10351

Eugenia watsoniana
Myrtaceae  LR/cd
Malaysia (Peninsular Malaysia)
Restricted to lowland forest in Selangor, the species is experiencing rapid habitat loss through agricultural development and increasing settlement. Kanching Forest Reserve, where the species has been recorded, is now largely a recreational area. Asian Eugenia are now included in Syzygium.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Eugenia woodburyana
Myrtaceae  CR D1
Puerto Rico
A slender tree with unusual winged fruit. A total of 45 plants are contained within three populations. Threats from fire, mining, grazing and road building are evident.
Assessor: World Conservation Monitoring Centre
Refs: 3786, 7980, 17124

Eugenia zeyheri
Myrtaceae  DD
South Africa (Eastern Cape)
There is considerable confusion in the literature about the identity of this taxon and its correct distribution. More recent accounts indicate that it is confined to the Eastern Cape but absent from KwaZulu-Natal and Mpumalanga as recorded previously. Herbarium specimens are also misidentified and there is little field knowledge of the species.
Refs: 689, 19218

Euodia lununenkda
Rutaceae  EN B1+2c
India (Tamul Nadu)
A poorly known species of forest margins, recorded from restricted areas of forest between 1400 and 1600m in the Agastyamalai Hills and Elamalai Hills.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Euodia macrocarpa
Rutaceae  VU A1c
Malaysia (Peninsular Malaysia)
An uncommon tree found in moist lowland and submontane forest in Kedah, Penang, Perak, Pahang and Selangor. Increasing settlement of the area is the greatest threat to the species.
Assessor: Chua, L.S.L.
Refs: 1892, 8464, 14541, 19073

Euodia robusta
Rutaceae  LR/cd
Malaysia (Peninsular Malaysia), Singapore
A small tree of moist forest up to 1300m in Kedah, Perak and Singapore. Populations receive a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 9199, 14541, 19073

Euonymus acanthocarpa
Celastraceae  LR/nt
China (Anhui, Guangxi, Guizhou, Henan, Hubei, Shanxi, Yunnan)
A species of ornamental interest. It is widely scattered in moist semi-deciduous forest between 1200 and 3000m.
Assessor: Sun, W.
Refs: 19035

Euonymus angulatus
Celastraceae  VU B1+2c
India (Karnataka, Kerala, Tamul Nadu)
A small tree of evergreen forest on slopes and river banks, collected in the past from a number of locations
in the Nilgiri Hills and apparently also from two locations in southern Karnataka. It is thought to have disappeared from a number of sites, mainly because of habitat conversion and possibly also fires.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2538, 19144

**Euonymus assamicus**
Celastraceae
EN B1+2c
India (Assam)
Recorded from the Delei Valley in north Assam in 1928, the species occurred in thickets on a steep rocky slope but has not been found since.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2538

**Euonymus glandulosus**
Celastraceae
LR/cd
Malaysia (Sabah, Sarawak), Philippines
A small tree found in hill and montane forest in northern Borneo and the Philippines. It is widely distributed in Sarawak, but restricted to Mount Kinabalu National Park in Sabah.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19017

**Euonymus lanceolata**
Celastraceae
VU B1+2c
China (Yunnan)
The taxonomic status of the species is not resolved; it may represent a variety of *E. hamiltonianus*. It is confined to Mengzi in the south-east, where it is scattered in areas of semi-deciduous forest between 2100 and 3000m. In places the habitat has become degraded in the last few years and population numbers are reported to be declining.

**Assessor:** Sun, W.
**Refs:** 19055

**Euonymus marrisonensis**
Celastraceae
VU D1+2
Taiwan
A species which is restricted to a narrow altitudinal range, occurring in open rocky habitats between 2700 and 2800m. Populations are found at distant localities, in Tatakia, Nengkaoyueh and Tienchin. There is little sign of regeneration.

**Assessor:** Lu, S.Y. & F.J. Pan
**Refs:** 3295, 6469, 19050, 19051

**Euonymus pallidifolia**
Celastraceae
CR A1a+2d
Taiwan
A potentially valuable ornamental shrub, which is restricted to areas of evergreen forest on raised coral reef in the Hengchun Peninsula at the southern tip of Taiwan. Populations are very small and suffering from poor regeneration. The entire species’ range is contained within Kenting National Park.

**Assessor:** Lu, S.Y. & F.J. Pan
**Refs:** 3295, 6469, 19050, 19051

**Euonymus paniculatus**
Celastraceae
EN B1+2c
India (Tamil Nadu)
A small tree, so far only collected twice from submontane evergreen forest at two widely separated localities.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19144

**Euonymus serratifolius**
Celastraceae
EN B1+2c
India (Kerala, Tamil Nadu)
A small understorey tree, recorded only three times: once from an imprecisely recorded site in the Agastymphala Hills and elsewhere from isolated localities in the Wyanad area.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2538, 19144

**Euonymus thwaitesii**
Celastraceae
EN B1+2c
Sri Lanka
A species found twice only in the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 8203, 18796, 19112

**Euonymus walkeri**
Celastraceae
VU A1c
Sri Lanka
A species occurring in the lowland wet evergreen forests of south-west Sri Lanka.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 17195

**Euphorbia abdelkuri**
Euphorbiaceae
EN D1
Yemen (Socotra)
Approximately 15 small populations, each of about 10 mature individuals, are known, all confined to Jebel Saleh on the western side of Abd al Kuri, an island to the west of Socotra. They occur in dry semi-desert and are threatened at present. The species is subject to *CITES Appendix II controls.

**Assessor:** Miller, A.G.
**Refs:** 19083, 19197

**Euphorbia annam**
Euphorbiaceae
VU A1c
Saudi Arabia, Yemen
A succulent tree, once an important component of the succulent shrubland between 1000 and 1500m. It has now become scarce, particularly in Saudi Arabia and South Yemen, although it remains common in places in North Yemen. The species is subject to *CITES Appendix II controls.

**Assessor:** Miller, A.G.
**Refs:** 19083, 19197

**Euphorbia apurimacensis**
Euphorbiaceae
VU B1+2c
Peru
Apparently confined to the department of Apurimac, the species occurs in forest roughly between 1500 and 2000m.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984
**Euphorbia arbuscula**
Euphorbiaceae  
Yemen (Socotra)
The species is fairly widespread, occurring on coastal plains and foothills in areas of dry woodland and shrubland. Trees are planted near settlements as dry season fodder for livestock. There is also a doubtfully distinct variety which is rare and confined to higher altitudes. The species is subject to *CITES Appendix II controls.

**Assessor:** Miller, A.G.  
**Refs:** 19083, 19197

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**Euphorbia bwambensis**
Euphorbiaceae  
Congo, Uganda  

A tree with drooping branches which, in Uganda, is confined to *Cynometra* forest in Semuliki, Bundibugyo District. Regeneration appears to be poor. It is protected within Rwenzori Mountain National Park. The species is subject to *CITES Appendix II controls.

**Assessor:** *MUJENR*  
**Refs:** 1308, 9605, 10961, 16021, 19197

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**Euphorbia cussonioides**
Euphorbiaceae  
Kenya  

A tree with succulent branches. It is endemic to localised areas of dry or riverine upland forest. The species is subject to *CITES Appendix II controls.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1546, 6396, 9198, 19197

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**Euphorbia doloensis**
Euphorbiaceae  
Ethiopia  

This species is known only from the type collection which occurs in open *Commiphora*-*Boswellia* bushland on steep rocky slopes in the Sidamo region.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5941, 18523

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**Euphorbia epiphyloides**
Euphorbiaceae  
India (Andaman and Nicobar Is. - Andaman Is.)  

An unarmed succulent tree which was recorded, up to 1977, as locally common in several localities. Recent surveys have been less successful in locating the species. In total no more than 250 plants exist around Saddle Peak on North Andaman, representing a serious decline from original population numbers. There are no known reasons for the decline as the area is relatively isolated and unthreatened.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19029

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**Euphorbia haeeleleana**
Euphorbiaceae  
USA (Hawaii)

A small dioecious tree occurring on two Hawaiian islands in lowland forest, both moist and dry. At present 15 populations, containing between 450 and 625 individuals, are recorded from the Waianae Mountains on Oahu and on the north-west coast of Kauai. All but one of the localities are on state-owned land. The habitat is steadily being degraded by feral goats, pigs and also deer and the spread of introduced plants is causing a decline in native flora. The species is protected by the US Endangered Species Act.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372, 19035

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**Euphorbia lividiflora**
Euphorbiaceae  
Malawi, Mozambique, Tanzania, Zimbabwe  

Populations are few and disjunct. One is known in Mikindani in Tanzania and another in a protected area in south-east Zimbabwe. Coastal populations in Mozambique may be extensive but more information is needed to confirm their status and extent. This species is subject to *CITES Appendix II controls.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1546, 5108, 5117, 10961, 17190, 19172, 19197

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**Euphorbia mayurnathii**
Euphorbiaceae  
India  

The species was described in 1940 from three old specimens growing on a rocky ledge on the eastern spur of a hill in Pallasa situated in the Palghat Gap. The vegetation is monsoon forest and succulent plants are absent apart from this single species. It has been postulated that the climate in the past was drier and this small remnant of a previously xerophytic community survived because of its exposed position. Through searches have failed to locate any living wild specimens today, although the species has been successfully cultivated. The species is subject to *CITES Appendix II controls.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19029, 19197

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**Euphorbia meuleniana**
Euphorbiaceae  
Yemen  

Known only from the Mahra region of South Yemen, the species is scarce and scattered in a few dry valleys. Further fieldwork is needed to estimate population sizes.

**Assessor:** Miller, A.G.  
**Refs:** 19083

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**Euphorbia nigrispinioides**
Euphorbiaceae  
Ethiopia  

A species which is locally common on lava flows in open deciduous woodland. It is known from Shewa but its distribution may extend into Harer and possibly Somalia. The species is subject to *CITES Appendix II controls.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5941, 18523, 19197

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**Euphorbia noxa**
Euphorbiaceae  
Somalia  

A laxly branched, slender tree confined to a few localities on rocky limestone soils with sparse bushland south of Bosaso and Qandala in north-eastern Somalia. The habitat is under some threat from overcutting and overgrazing.

**Assessor:** Thulin, M.  
**Refs:** 1546, 8697, 18665
**Euphorbia obcordata**
Euphorbiaceae
Yemen (Socotra)
A small tree or shrub, which has been collected on only a few occasions and is thought to be rare. Populations occur on wooded limestone cliffs on the east of the island. They are under no immediate threat.
Assessor: Miller, A.G.
Refs: 2354, 19083

**Euphorbia santapauii**
Euphorbiaceae
EN B1+2cd
India (Tamil Nadu)
A succulent species localised to the sword-covered summit of Mount Agasthya on the Kerala-Tamil Nadu border. Individuals survive in sheltered and moist places. Most localities have apparently been destroyed, frequently because of accidental and intentional fires. Trees are also cut and dried to be used as firewood by pilgrims trekking up to the temple on the summit of Mount Agasthya. This species is subject to *CITES Appendix II controls.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 19028, 19029, 19197

**Euphorbia sekukuniensis**
Euphorbiaceae
LR/nt
South Africa (Mpumalanga, Northern Province)
A small spiny succulent tree with a restricted distribution on a range of hills northwest of Lydenburg. Plants are found on rocky slopes and cliffs in shallow sandy and turfy soils, associated with mixed savanna vegetation. The species is not threatened but it is listed as protected. Any changes in land use could have some impact. None of the localities are contained within conservation areas. The species is subject to *CITES Appendix II controls.
Refs: 689, 14002, 19218

**Euphorbia smithii**
Euphorbiaceae
LR/nt
Oman, Yemen
Endemic to the escarpment mountains from Dhofar in Oman to neighbouring south-east Yemen; this species is a common component of woodlands at lower altitudes. There has been an influx of people into the area in Oman since 1975 and a subsequent rise in grazing pressure and cutting of wood.
Assessor: Ghazanfar, S.A.
Refs: 16380

**Euphorbia socotrana**
Euphorbiaceae
VU D2
Yemen (Socotra)
Populations appear to be scattered and relatively rare in areas of dry woodland and shrubland on granite and limestone. They are under no immediate threat.
Assessor: Miller, A.G.
Refs: 19083

**Euphorbia tanaensis**
Euphorbiaceae
CR B1+2c, D1
Kenya
A medium-sized tree of semi-deciduous swamp forest, confined to Witu Forest Reserve. The present population estimate includes 20 mature individuals. Although the area is legally protected, civil insecurity has led to a lack of research and enforcement of protective measures. The species is subject to *CITES Appendix II controls.
Assessor: CAMP Workshop in Kenya
Refs: 1546, 6396, 12067, 19181, 19197

**Euphorbia thulini**
Euphorbiaceae
VU D2
Somalia
A small tree known only from a limestone escarpment, vegetated with sparse low bushes, south of Dhurbo in north-east Somalia. The area is vulnerable to degradation.
Assessor: Thulin, M.
Refs: 8697, 18665

**Euphorbia unigailns**
Euphorbiaceae
VU D2
Ethiopia
A species recorded only from a small area in Sidamo in high *Commiphora* bushland.
Assessor: World Conservation Monitoring Centre
Refs: 5941, 18523

**Euphorbia vaileavelui**
Euphorbiaceae
VU D2
India (Tamil Nadu)
Endemic to Tamil Nadu, this small succulent tree or shrub occurs in submontane forest. Populations occur in Kalakkad Forest, Kodyar, Sirimalai and Highways. More detailed information is needed on their status. This species is subject to the provisions of *CITES Appendix II.
Assessor: World Conservation Monitoring Centre
Refs: 19029, 19197

**Euphorbia wakefieldii**
Euphorbiaceae
EN B1+2c
Kenya, Tanzania?
A succulent tree, best known from a population confined to coral cliffs and limestone outcrops in the Mombasa-Kilifi area in Kenya. There is also a record of an occurrence in the South Pare Mountains in Tanzania. The species is subject to *CITES Appendix II controls.
Assessor: World Conservation Monitoring Centre
Refs: 1546, 6396

**Euphorbia zoutiansbergensis**
Euphorbiaceae
LR/nt
South Africa (Northern Provine)
A small spiny succulent tree restricted to the Zoutiansberg and Blouberg mountain ranges, where it grows in sandy soils on rocky, sandstone slopes of ridges and hills with a north and north-east aspect in mixed savanna vegetation. Apart from slight pressure from succulent-collectors, no immediate threats exist. Any change in land use, however, would have a serious impact because of the species' restricted range. The species is listed as protected, but it is not recorded from any conservation areas. It is also subject to *CITES Appendix II controls.
Refs: 689, 14002, 19218
Euplassa isernii
Proteaceae VU D2 Peru
This species is known only from its type collection taken from the department of Junín.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Euroschinus aoupiniensis
Anacardiaceae VU B1+2c New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Euroschinus jaffrei
Anacardiaceae VU B1+2c New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Eurya rengechiensis
Theaceae EN B1+2b Taiwan
Only a few small populations are known in areas of lowland broadleaved forest at Lienhuchi in the centre of Taiwan. There is little evidence of regeneration. None of the populations is protected.
Assessor: Pan, F.J.
Refs: 3295, 19050

Eurya sandwicensis
Theaceae VU A1ce USA (Hawaii)
Apparently the species is uncommon and scattered on forested ridges between 450 and 1600m on Kauai, Oahu, Molokai, Maui and Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Eurygrycyrius cavaleriei
Sapindaceae LR/nt China (Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Yunnan), Taiwan
A wide-ranging tree, and important fuelwood, of lowland semi-deciduous forest, occurring up to 1600m. Habitat declines have been extensive throughout the range. Some populations exist within protected forest.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 19055

Eurydendron excelsum
Theaceae CR D1 China (Guangdong, Guangxi)
The species has been reduced to two localities, Yangchong in Guangdong and Pingnan in Guangxi, and very few individuals which are found in open forest on hilly slopes between 50 and 150m. The remaining trees do not appear to be protected and are close to villages, where they are susceptible to cutting. The genus is monospecific.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Eusideroxylon zwageri
Lauraceae VU A1cd+2cd Brunei, Indonesia (Java, Kalimantan, Sumatra), Malaysia (Sabah, Sarawak), Philippines
Generally a species of lowland primary forest. Belian or ironwood is one of the most renowned timbers of Borneo, the decline of which was first noted in 1955. Population reduction caused by overexploitation and shifting agriculture has been noted in the following regions: Kalimantan, Sumatra, Sabah, Sarawak and the Philippines. Indonesia has banned the export of belian and Sarawak has placed restrictions on export; Sabah and Kalimantan continue to export it. Regeneration in logged-over forests is limited. So far the species is only planted on a small scale because the supply of seeds and seedlings is inadequate.
Assessor: Asian Regional Workshop
Refs: 898, 3122, 7087, 7461, 12937, 13395, 14573, 17235, 19026

Euterpe luminosa
Palmae VU B1+2c Peru
A clustered palm tree of great taxonomic interest, restricted to Cordillera Yanachaga. It occurs in the understorey of moist cloud forest between 2000 and 2500m. The species range is extremely small and threatened by forest clearance.
Assessor: Henderson, A.
Refs: 19118

Eucoccaria benthamiana
Euphorbiaceae VU D2 Seychelles
Endemic to the Seychelles, the species occurs within a very restricted area (<1000ha), on Mahé and Praslin. Populations are healthy and stable.
Assessor: Nature Protection Trust of Seychelles
Refs: 16212, 17229, 19025

Eucoccaria gaudichaudii
Santalaceae EN A1ce USA (Hawaii)
This species is uncommon and scattered primarily on forested ridges or in shrubland at medium elevations on all the main islands except Kauai.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Eucoccaria brachycarpum
Rubiacaeae LR/nt Jamaica
Occurring in central and western parishes, this tree has a local distribution confined to remaining areas of woodland on limestone. General declines in the habitat have been considerable.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Eucoccaria orbitulaatum
Rubiacaeae CR B1+2c Jamaica
An uncommon species confined to Crown Lands in Trelawny.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Eucoccaria trilorum
Rubiacaeae VU B1+2c Jamaica
A tree known only from St Ann and Portland Parishes, where it is restricted to sheltered moist woodland on
limestone at about 450m. Many areas have been logged or
taken over by commercial plantations.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Fagara extrema**
Rutaceae  VU D2
Chile (Juan Fernández Is)
A characteristic species of lower montane forest,
endemic to Masafuera Island. Preliminary data indicate
the species is confined to less than 100km². More
detailed information on the species should become
available to confirm this evaluation. The islands are
designated as a national park and biosphere reserve and
work is being carried out by *CONAF* to save the native
plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 14140

**Fagara mayu**
Rutaceae  VU D2
Chile (Juan Fernández Is)
A characteristic species of lower montane forest, a good
example of which is found at Quebrada Villagra.
Preliminary data indicate the species is confined to less
than 100km². More detailed information on the species
should become available to confirm this evaluation. The
islands are designated as a national park and biosphere
reserve and work is being carried out by *CONAF* to
save the native plants. *Fagara* is now included in
*Zanthoxylum*.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 7980, 14140

**Fagara mezeneurospinosa**
Rutaceae  EN B1+2c
Côte d’Ivoire
A rare species, known only from coastal forest in Côte
D’Ivoire. This forest type has been severely degraded
and depleted. *Zanthoxylum* is now the accepted name for
this genus.
Assessor: Assi, A.
Refs: 12590, 12522

**Fagarea carstensensis**
Loganiaceae  DD
Papua New Guinea
A poorly understood species, collected twice from forest
between 200 and 860m on Mount Carstensz and Mount
Tamrar, Mimika District.
Assessor: World Conservation Monitoring Centre
Refs: 19031

**Fagarea gracilipes**
Loganiaceae  LR/nt
Fiji
A desirable timber, used for house posts and marine
constructions. It is sometimes locally abundant,
occuring in dry dense forest and occasionally on the
inner edges of mangroves on four of the high islands.
Cutting of trees in Mathuata and Mbu is restricted. It
has become rare on Viti Levu because of cutting and
coastal developments. The populations on the north
coast of Vanua Levu are probably the least disturbed.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 6433, 18818

**Fagus hayatae**
Fagaceae  VU D2
Taiwan
The Taiwan beech is found in broadleaved submontane
forest in the northern and southern parts of Chatienshan
and in smaller populations in Tungshan and Agushan in
Lian County. Populations are largely made up of old
individuals. Trees are slow-growing and regeneration is
poor, depending on the creation of gaps which are
currently being invaded by alpine bamboo and
broadleaved species. The species is morphologically
similar to and may turn out to be synonymous with *F.
lucid*a from the central provinces of China.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 1818, 3295, 11847, 19050, 19051, 19054

**Fagus longipetiolata**
Fagaceae  VU A1cd
China, Viet Nam
In Viet Nam this slow-growing tree is known only from
Sapa and Moc Chau, where it is sometimes the dominant
species in dense subtropical broadleaved forest.
Regeneration is thought to be hampered by a thick layer
of leaf litter on the forest floor. The wood is used to
make furniture, implements and musical instruments.
Assessor: Nghia, N.H.
Refs: 848, 4506, 11530, 15357

**Falcatafolium angustum**
Podocarpaceae  VU D2
Malaysia (Sarawak)
A rare tree of lowland rainforest, collected four times
from just two localities of rainforest near the coast at
Bintulu and Kuching. Its diminutive size and scarcity
render it unlikely to be exploited.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6851, 19192

**Farea exemplaris**
Rubiaceae  VU D2
Peru
Known only from the type collection, the species occurs
in lowland Amazon forest in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Fatia polycarpa**
Araliaceae  LR/nt
Taiwan
Occurring in broadleaved forest up to 2800m, the
species is confined to the central mountain range.
Habitat destruction has been extensive but most intense
at lower elevations. The only other member of the genus
is confined to Japan.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 6469, 11847

**Fauera macnaughtonii**
Proteaceae  LR/ed
South Africa (Eastern Cape, Western Cape, KwaZulu-
Natal, Mpumalanga), Swaziland
A very widespread but scattered species occurring in
forests and on forest margins from near Knyasa in the
Western Cape to Mariposkop in Mpumalanga (approx.
13 localities in South Africa). It is also recorded from a
single forest in Swaziland. All the subpopulations are
very small, except for a comparatively large and
vigorous subpopulation in Lilyvlei forest at Gona near
Knyasa in the Western Cape. Regeneration in all except
the latter subpopulation is non-existent, despite trees fruiting plentifully and the seed being viable. At one time trees were harvested for their timber, but this is now strictly controlled. It is a protected species over much of its range and efforts are being made to improve the potential of recruitment. More research is needed to establish the relationship between this species and other F. aurea species in East Africa, Madagascar and Zimbabwe.

**Assessor:** Hilton-Taylor, C. *et al.*
**Refs:** 689, 16730, 19218

**Fernandoa lutea**

*Bigoniaceae* EN B1+2bc

*Tanzania*

An endemic species of the Rondo Forest Reserve (140 km²), limited to areas which remain undisturbed. Logging, planting of commercial timbers, shifting cultivation and wood collection have all contributed to the disturbance of forested areas within the reserve. The stability of the remaining forest is maintained by the presence of forest management activities which discourage local exploitation.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 5654, 16796

**Ficus agaruaguensis**

*Moraceae* VU B1+2ac

*Bolivia*

Endemic to the piedmont forest in Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.

**Assessor:** Prado, D.
**Refs:** 19122

**Ficus andamanica**

*Moraceae* EN B1+2c

*India* (Andaman and Nicobar Is. - Andaman Is.)

A fig tree endemic to South Andaman Island where it is sparsely distributed in remaining areas of evergreen forest. Large declines in extent of the forest have been caused by logging.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4799, 7147

**Ficus anglandei**

*Moraceae* CR B1+2c

*India* (Tamili Nadu)

A poorly known species which has been recorded just the once from an unspecified locality in the Palni Hills.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19144

**Ficus aripanensis**

*Moraceae* EN B1+2bc

*Brazil* (Mato Grosso, Pará)

**Assessor:** Pereira, J.P. *et al.*
**Refs:** 2562

**Ficus biganum**

*Moraceae* VU C2a

*South Africa* (Eastern Cape, KwaZulu-Natal)

A species of coastal and riverine forest, mainly found in the Transkei, Eastern Cape, but also in southern KwaZulu-Natal and in a disjunct subpopulation in Ngoye forest, northern KwaZulu-Natal. It is known from approximately six localities and does not seem to be common anywhere. Although a number of localities are in demarcated forest reserves, these reserves have not been effectively protected since 1994. Many forest patches are under threat from people collecting firewood and timber and expanding settlements.

**Assessor:** Hilton-Taylor, C. *et al.*
**Refs:** 689, 19218

**Ficus blepharophylla**

*Moraceae* EN B1+2bc

*Brazil* (Roraima)

**Assessor:** Pereira, J.P. *et al.*
**Refs:** 2562

**Ficus bojeri**

*Moraceae* VU D2

*Seychelles*

A species of the granitic islands, endemic to the Seychelles.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 16212, 17229

**Ficus calyptroceras**

*Moraceae* VU B1+2bc

*Brazil* (Bahia, Goiás, Mato Grosso do Sul, Minas Gerais, Piauí)

**Assessor:** Pereira, J.P. *et al.*
**Refs:** 2562

**Ficus chlamydocarpa ssp. fernandesiana**

*Moraceae* VU D2

*São Tomé & Príncipe* (São Tomé)

A tree of secondary forest, occurring up to 1000m. It has been collected from four locations, S. Vicente, Jau, a site between Nova Moka and Bom Sucesso and also Monte Café.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2421, 2724, 10080

**Ficus cotinifolia var. hondurensis**

*Moraceae* EN C2a

*Costa Rica, El Salvador, Honduras, Nicaragua*

This variety occurs in mixed forest types of varying humidity.

**Assessor:** Nelson, C.
**Refs:** 2652, 13995

**Ficus cyclophylla**

*Moraceae* EN A1c

*Brazil* (Maranhão, Minas Gerais, Pará, Pernambuco, Pernambuco - Fernando de Noronha, Rio de Janeiro, Rondônia)

In the past the species has been confused with *F. catappifolia* or *F. longifolia*. It has a scattered distribution in areas of Atlantic forest in the north-east and south-east. Loss and degradation of habitat and poor regeneration have resulted in population reductions.

**Assessor:** Carauta, J.P.P.
**Refs:** 2562, 15717, 19101

**Ficus faulkneriana**

*Moraceae* CR C2a, D1

*Kenya, Tanzania*

A strangler fig of coastal dry open bushland. Populations of extremely small size are known from Gongoni Forest Reserve and Dzirihini in Kenya. It was also recorded in Langoya Ngwageni in 1968. In Tanzania there are records from sisal estates in Pangani and Korogwe. These areas are in danger of being completely cleared.

**Assessor:** CAMP Workshop in Kenya
**Refs:** 6396, 19181
**Ficus hirsuta**
Moraceae  
Brazil (Bahia, Mato Grosso do Sul, Minas Gerais, Rio de Janeiro, São Paulo)  
A species which was once thought to be near extinction.  
Assessor: Pereira, J.P. et al.  
Refs: 2562

**Ficus lapathifolia**
Moraceae  
Mexico (Chiapas, Oaxaca, Veracruz)  
Endemic to the Gulf region, the species occurs in remaining areas of rainforest, ranging as far north as northern Veracruz.  
Assessor: World Conservation Monitoring Centre  
Refs: 5993

**Ficus lateriflora**
Moraceae  
Mauritius, Réunion  
The Mauritian population consists of fewer than 10 individuals, only three of which have been identified with complete confidence. Individuals are confined to extremely wet areas in forest in the south-west uplands. There is no available information on the population which apparently exists on Réunion  
Assessor: Page, W.  
Refs: 1411, 2000, 3476, 12646

**Ficus meizonochlamys**
Moraceae  
Cuba  
Confined to the karstic hill complex of Sierra de Nipe on the border of the provinces of Santiago de Cuba and Holguin, this endemic tree is not well collected and its habitat has been degraded in accessible areas.  
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

**Ficus mexiae**
Moraceae  
Brazil (Bahia, Minas Gerais)  
Assessor: Pereira, J.P. et al.  
Refs: 2562

**Ficus muelleriana**
Moraceae  
Mozambique  
A shrub or small tree of moist deciduous woodland at about 600m, known only from two localities immediately to the east and south of the Chimanimani Mountains in western Mozambique. This woodland type is being extensively destroyed through logging and shifting cultivation have led to considerable population declines.  
Assessor: World Conservation Monitoring Centre  
Refs: 11085, 19172

**Ficus mutabilis**
Moraceae  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Ficus pakkensis**
Moraceae  
Brazil (Maranhão, Pará), Guyana  
The Brazilian population is confined and declining.  
Assessor: Pereira, J.P. et al.  
Refs: 2562

**Ficus pulchella**
Moraceae  
Brazil (Maranhão, Pará, Paraná, Rio de Janeiro, Santa Catarina)  
An Atlantic forest species which is threatened by loss and degradation of the habitat and poor regeneration.  
Assessor: Carauta, J.F.P.  
Refs: 15717, 19101

**Ficus ramiflora**
Moraceae  
Brazil (Acre, Amapá, Amazonas, Roraima)  
Assessor: Pereira, J.P. et al.  
Refs: 2562

**Ficus reflexa ssp. seychelensis**
Moraceae  
Seychelles  
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.  
Assessor: World Conservation Monitoring Centre  
Refs: 16212, 17229

**Ficus roraimensis**
Moraceae  
Brazil (Roraima)  
Assessor: Pereira, J.P. et al.  
Refs: 2562

**Ficus salzmanniana**
Moraceae  
Brazil (Bahia)  
Assessor: Pereira, J.P. et al.  
Refs: 2562

**Ficus ulmifolia**
Moraceae  
Philippines  
An endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.  
Assessor: World Conservation Monitoring Centre  
Refs: 2072, 4919, 18088

**Ficus ursina**
Moraceae  
Brazil (Acre)  
Assessor: Pereira, J.P. et al.  
Refs: 2562

**Firmiana hainanensis**
Sterculiaceae  
China (Guangdong - Hainan)  
The southernmost member of the genus. The few populations known are confined to Hainan Island, where they occur in seasonal rainforest between 400 and 900m. Extensive declines in the habitat because of logging and agricultural expansion have caused populations to decline throughout the species' range.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 11847
**Firmiana major**  
Stereulciaceae  
China (Yunnan)  
The only remaining trees are those which have been planted around temples and villages. Wild populations were once believed to have existed in central and western Yunnan between 1700 to 2500m. The forests here have been replaced by crops. The species remains in cultivation, frequently planted as an ornamental tree.  
**Assessor:** Sun, W.  
**Refs:** 1818, 11847, 19055

**Fitchia cordata**  
Compositae  
French Polynesia (Society Is.)  
A small genus endemic to East Polynesia. This species is recorded only on Bora Bora.  
**Assessor:** Florence, J.  
**Refs:** 14513

**Fitchia cuneata** ssp. *cuneata*  
Compositae  
French Polynesia (Society Is.)  
A small genus endemic to East Polynesia. This taxon represents one of two subspecies. It is confined to Raiatea.  
**Assessor:** Florence, J.  
**Refs:** 14513

**Fitchia mangarevensis**  
Compositae  
French Polynesia (Tuamotu Is.)  
Occurring as either a shrub or small tree, the species was only ever known from Taravai in the Gambier Islands. The genus endemic to East Polynesia.  
**Assessor:** Florence, J.  
**Refs:** 14513

**Fitchia nutans**  
Compositae  
French Polynesia (Society Is.)  
This species comes from a small genus, endemic to East Polynesia. It has been found only on Tahiti.  
**Assessor:** Florence, J.  
**Refs:** 14513

**Fitchia tahitensis**  
Compositae  
French Polynesia (Society Is.)  
One of the six species in the genus, which is endemic to East Polynesia. It occurs only on Tahiti.  
**Assessor:** Florence, J.  
**Refs:** 14513

**Fitzroya cupressoides**  
Cupressaceae  
Argentina (Chubut, Neuquén, Rio Negro), Chile (Los Lagos)  
Alerce has been logged since the middle of the 17th century. The largest concentration of the species, at the southern end of the Chilean depression, was exploited in the 18th and 19th centuries, leaving no remains except blackened stumps. By the early 1900s a third of the Fitzroya forests had been removed. In the 1930s motorised transport and the building of roads allowed access to the stands in the Coastal Cordillera and High Cordillera. Exploitation continued in both of these areas at such intensities that chances of regrowth and regeneration are anihilated. Present estimates of the area taken up by remaining stands lie at 20,000ha, 15% of their original size. Restrictions laid down by the Chilean Government have not been adhered to and illegal logging in remote areas has been impossible to halt. Today the best stands may be found between latitudes of 41° and 42°S in the High Cordillera. Elsewhere populations are small. The species is listed in *CITES Appendix I.  
**Assessor:** González, M.  
**Refs:** 5112, 7980, 11147, 13041, 16328, 19214

**Fleurydora felicis**  
Ochnaceae  
Guinea  
Information on the population status is not available. The species is endemic to upland forest. The pressure on these few small remaining areas exerted by a dense human population is great. It is the only species in the genus.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2773

**Flindersia amboinensis**  
Rutaceae  
Indonesia (Moluccas), Papua New Guinea  
A large tree, widespread but of sporadic occurrence throughout lowland and submontane rainforest on mainland Papua New Guinea, Seram Island and Tanimbar Islands of the Moluccas. The main threat to the species is logging. The wood has commercial value as a veneer and is used to make high-class furniture.  
**Assessor:** Eddowes, P.J.  
**Refs:** 19114

**Flindersia ifflaina**  
Rutaceae  
Australia (Queensland), Papua New Guinea  
In Papua New Guinea, this tree is found in monsoon and gallery forest up to 50m. The species occurs in the Oroimo River ecosystem in Western Province, which is restricted, fragile and threatened by logging activities. The above threat category applies only to the population in Papua New Guinea. More information is needed from Queensland.  
**Assessor:** Eddowes, P.J.  
**Refs:** 19114

**Flindersia laevicarpa**  
Rutaceae  
Australia (Queensland), Indonesia (Irian Jaya), Papua New Guinea  
Found in monsoon, gallery and hill forest on elevated ground, this large tree is threatened in New Guinea by exploitation and logging activities. It has a sporadic occurrence in hill forest in Varirata National Park, Central Province, where it is hoped populations will survive. Its status in Australia is not considered in this evaluation.  
**Assessor:** Eddowes, P.J.  
**Refs:** 19114

**Flindersia pimenteliana**  
Rutaceae  
Australia (Queensland), Indonesia (Irian Jaya), Papua New Guinea  
A large tree found mainly in lower montane rainforest or in foothill rainforest. In Papua New Guinea, the species is widespread but uncommon and sporadic. It has been heavily exploited in the Bulolo/Wau region of Morobe...
Species Summaries

Province. Populations on spurs and ridges of mountain ranges may be spared from future exploitation. The population status in Australia is not taken into consideration in this evaluation. 
Assessor: Eddowes, P.J. 
Refs: 19114

Flindersia schottiana 
Rutaceae 
Australia, Indonesia (Irian Jaya), Papua New Guinea 
This species is widespread in monsoon, hill and lower montane forest. In Papua New Guinea, it was subject to exploitation in two major logging areas in Morobe and Western Provinces. Populations in the rugged mountains of Owen Stanley range may be spared from exploitation. The above threat category refers to the species' situation in New Guinea. 
Assessor: Eddowes, P.J. 
Refs: 19114

Flueggea anatolica 
Euphorbiaceae 
Turkey 
A recently described shrub known from just a single locality in the Kadincik Valley north of Mersin. About 100 individuals have been estimated to exist in an area of one hectare within the grounds of a dam. The site has been declared a nature reserve. 
Assessor: Güner, A. & J. Zielinski 
Refs: 3736

Flueggea neowawraea 
Euphorbiaceae 
USA (Hawaii) 
A large forest tree known from approximately 13 populations in north-west Kauai, the Waianae Mountains on Oahu, Molokai, where the one specimen known has died, the south-west slope of Haleakala on Maui and the Kona coast on Hawaii. The total population comprises of fewer than 50 individuals. The decline in numbers has mainly been caused by the black twig borer (Xylosandrus compactus). The species is protected by the US Endangered Species Act. 
Assessor: World Conservation Monitoring Centre 
Refs: 3732

Fokienia hodginsii 
Cupressaceae 
China (Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan, Yunnan, Zhejiang), Laos, Viet Nam 
A common species with a wide range, although the exact extent of the truly wild populations is obscured by those which have been planted. Large-scale logging has resulted in the species disappearing or becoming scarce in parts of its range, notably in northern Viet Nam and southern China. Regeneration is fire-dependent and appears to be good. The genus is monospecific. 
Assessor: SSC Conifer Specialist Group 
Refs: 374, 848, 1818, 11847, 16925

Fordia incredibilis 
Leguminosae 
Malaysia (Peninsular Malaysia) 
Confined to the state of Johore, this small tree occurs in lowland forest up to 240m. Increasing agriculture and settlement are causing habitat declines. 
Assessor: Chua, L.S.L. 
Refs: 19073

Fordia lanceolata 
Leguminosae 
Malaysia (Peninsular Malaysia) 
The species is scattered in lowland hill forest between 500 and 700m. Continued settlement of the area has resulted in habitat declines. 
Assessor: Chua, L.S.L. 
Refs: 19073

Fordia ophiirensis 
Leguminosae 
Malaysia (Peninsular Malaysia) 
Occurring in hill forest, this small tree is confined to Mount Ophir, Johore. Only two collections have been made, gathered from localities between 300 and 400m. The area is being increasingly settled. 
Assessor: World Conservation Monitoring Centre 
Refs: 19073

Fordia pauciflora 
Leguminosae 
Malaysia (Peninsular Malaysia), Thailand 
A small tree found in hill forests in Perak, between 150 and 300m. Main threats to the species include logging activities and increasing settlement of the area. Populations are protected within forest reserves. 
Assessor: Chua, L.S.L. 
Refs: 19073

Forestiera hondurensis 
Oleaceae 
CR C2b 
Honduras 
A tree of submontane oak woodland and thicket. 
Assessor: Nelson, C. 
Refs: 8805, 13995

Frangula azorica 
Rhamnaceae 
Portugal (Azores, Madeira) 
An endemic to the Azores, now probably extinct in Madeira. It occurs on all the Azorean Islands, except Graciosa and Corvo, in laurel—juniper forest up to 1000m. It appears to be a vigorous species which is little affected by habitat degradation. 
Assessor: World Conservation Monitoring Centre 
Refs: 5287, 7222, 19131

Franklinia alatamaha 
Theaceae 
USA (Georgia) 
A multi-stemmed shrub or small tree which has not been seen in the wild since 1803. Originally occurring along the banks of Alatamaha River in McIntosh County on the coastal plain of Georgia, the only known colony occurred in acidic bogs at the heads of sand-hill branches and was thought to have been brought to extinction largely through overcollection by nurserymen. Numerous expeditions to relocate the plant have failed. It is now a popular garden plant. 
Assessor: World Conservation Monitoring Centre 
Refs: 2276, 19200

Fraxinus caroliniana ssp. cubensis 
Oleaceae 
VU D2 
Cuba 
A subspecies restricted to fenwoods and swamp forests on peat on the Zapata Peninsula in Matanzas Province.
The habitat has been degraded by logging and charcoal production.

Assessor: Areces-Mallea, A.E.
Refs: 19149

**Fraxinus hondurensis**

Oleaceae  
Honduras

A rarely collected tree, found in groves near river banks and on forested plains at medium elevation.

Assessor: Nelson, C.
Refs: 13995

**Freyacinetia auriculata**

Pandanaceae  
Philippines

This tree is an endemic of Palawan, found in forests at low or medium altitudes. The main island is a biosphere reserve.

Assessor: World Conservation Monitoring Centre
Refs: 4986

**Freziera alata**

Theaceae  
Bolivia

Records of three localities have been made within a small area of cloud forest in the department of La Paz. Two of these are over 100 years old. The extent of the forest in this area has declined because of widespread fires, encroaching farming activities and cutting for wood and charcoal production.

Assessor: World Conservation Monitoring Centre
Refs: 5070, 13661

**Freziera biserrata**

Theaceae  
Costa Rica

An *elfin forest species known only from a single collection made in 1984, from the Cordillera de Talamanca.

Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

**Freziera caesariata**

Theaceae  
Bolivia

A cloud forest species confined to a small number of localities, all from the La Paz region, where the extent of forest has been reduced by increasing fires, encroaching farming activities and cutting for wood and charcoal production.

Assessor: World Conservation Monitoring Centre
Refs: 5070

**Freziera caloneura**

Theaceae  
Bolivia, Peru

A cloud forest species known from several localities in La Paz and Cochabamba in Bolivia, extending into Cuzco, Peru. Of the six Bolivian collections four were made in 1866. Agricultural expansion and local exploitation and burning of forested areas have caused a decline in the habitat.

Assessor: World Conservation Monitoring Centre
Refs: 5070

**Freziera campanulata**

Theaceae  
Ecuador, Peru

A montane or *elfin forest species known only from two localities: Huánuco in Peru and Loja-Zamora, Ecuador. The Ecuadorean population is located within Podocarpus National Park but the Peruvian one is unprotected and vulnerable to habitat degradation.

Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

**Freziera ciliata**

Theaceae  
Peru

A cloud forest species known only from two localities in Tumango in Huánuco and Oiapampa in Pasco. Collections have been few, illustrating that the species may be very rare.

Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

**Freziera cordata**

Theaceae  
Dominica, Guadeloupe, Martinique

Known from only three localities, this species is found in montane forests near volcanic summits. Populations occur on Morne Anglais in Dominica, on Mount Pelée in Martinique and Guanacaste in Rincón de la Vieja National Park in Costa Rica. Although it has been expected to become extinct at more than one of its localities after volcanic eruptions, it continues to recover.

Assessor: World Conservation Monitoring Centre
Refs: 5070, 10754, 14883

**Freziera dudleyi**

Theaceae  
Bolivia, Peru

A cloud forest species known from only two localities: Cordillera Vilcabamba in Peru and Sandillani in Bolivia. There have been no collections from Bolivia since 1866 and the original populations may now be extinct. Agricultural expansion, cutting for wood and charcoal production and fires have caused extensive degradation and loss of this forest habitat.

Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

**Freziera echinata**

Theaceae  
Colombia

Known only from the type specimen, this morphologically distinctive species occurs within cloud forest in Munchique National Park.

Assessor: World Conservation Monitoring Centre
Refs: 5070, 13574

**Freziera euryoides**

Theaceae  
Colombia

This species is poorly known. The locality of the type collection dating back to the 18th century is unknown.
Another locality in Valle is tentative. The species has not been definitely collected for over 100 years and may now be extinct.

**Freiza jaramilloi**
Theaceae
VU D2
Colombia
Known only from the type, this species was collected in 1976 from the Chocó, between Alto del Galápagos and San José del Palmar. Fieldwork is needed to ascertain the current status of the population.

**Freiza longipes**
Theaceae
LR/nt
Colombia
Occurring in cloud forest, this species is known from five localities in Magdalena, Risaralda, Cundinamarca and Valle regions of Columbia.

**Freiza ovata**
Theaceae
VU B1+2c, D2
Ecuador
A small cloud forest species known from four localities in the Azuay and Loja regions of Ecuador. The populations may be more seriously threatened but fieldwork is needed to give an accurate assessment of their status.

**Freiza parva**
Theaceae
VU B1+2c, D2
Peru
An *elfin forest species known from only two localities in Peru; Bongará in the Amazonas region (collected in 1915) and the Cordillera Vilcabamba in Cuzco. The forest in these areas has suffered from the encroachment of farming activities, burning and cutting for charcoal production. These populations may be more seriously threatened but fieldwork is needed to give an accurate assessment of their status.

**Freiza punctata**
Theaceae
VU B1+2c, D2
Colombia
Occurring in cloud forest, this species has been collected in various localities in central Antioquia. Nowhere is it found to be common.

**Freiza retinveria**
Theaceae
VU D2
Colombia
A poorly known species recorded only from the type specimen, which was collected in Alto de Santo Inés in 1941.

**Freiza revoluta**
Theaceae
EN B1+2c
Bolivia, Peru
A large tree of primary cloud forest. It has been collected from just three localities. In Peru populations are known from Cordillera Vilcabamba in Cuzco and Oxpampa in Pasco. In Bolivia it was collected over 50

**Freiza forerorum**
Theaceae
CR D1
Panama
A cloud forest species, known only from the type locality on the summit of Cerro Tacarcuna in Darién. In the late 1970s only three trees were counted. It appears that the summit vegetation is dying of natural causes.

**Freiza glabrescens**
Theaceae
VU B1+2bc
Bolivia
Probably only two localities exist where this species occurs in deciduous forest. One is in Chuquisaca and the other in Santa Cruz, mainly in Samaipata. Forest in this area has declined or become degraded because of heavy exploitation for wood and the encroachment of farming activities.

**Freiza incana**
Theaceae
VU D2
Peru
An *elfin forest or cloud forest species known from three localities: Cordillera Vilcabamba in Cuzco, Pan de Azúcar and Tumango. Encroachment of farming activities, burning and overcutting for wood and charcoal production are causing widespread degradation of forested areas.

**Freiza longipes**
Theaceae
LR/nt
Colombia
Occurring in cloud forest, this species is known from five localities in Magdalena, Risaralda, Cundinamarca and Valle regions of Columbia.

**Freiza ovata**
Theaceae
VU B1+2c, D2
Ecuador
A small cloud forest species known from four localities in the Azuay and Loja regions of Ecuador. The populations may be more seriously threatened but fieldwork is needed to give an accurate assessment of their status.

**Freiza parva**
Theaceae
VU B1+2c, D2
Peru
An *elfin forest species known from only two localities in Peru; Bongará in the Amazonas region (collected in 1915) and the Cordillera Vilcabamba in Cuzco. The forest in these areas has suffered from the encroachment of farming activities, burning and cutting for charcoal production. These populations may be more seriously threatened but fieldwork is needed to give an accurate assessment of their status.

**Freiza punctata**
Theaceae
VU B1+2c, D2
Colombia
Occurring in cloud forest, this species has been collected in various localities in central Antioquia. Nowhere is it found to be common.

**Freiza retinveria**
Theaceae
VU D2
Colombia
A poorly known species recorded only from the type specimen, which was collected in Alto de Santo Inés in 1941.

**Freiza revoluta**
Theaceae
EN B1+2c
Bolivia, Peru
A large tree of primary cloud forest. It has been collected from just three localities. In Peru populations are known from Cordillera Vilcabamba in Cuzco and Oxpampa in Pasco. In Bolivia it was collected over 50
years ago in the Mapiri region of La Paz. Forests in these areas have been extensively degraded by encroaching farming activities, fires and overcutting for fuelwood and charcoal production.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera roraimensis**
Theaceae
VU B1+2c
Venezuela
The exact location of this species is not known. The only collections date back to 1842 and are likely to have been taken from forests to the south of Roraima. Reports suggest that this area is no longer forested because of heavy burning. Surrounding forests have not been botanically well explored.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera rufescens**
Theaceae
VU A1c
Ecuador
A species noted for the good-quality charcoal it produces. It is known from five localities in areas of primary or secondary cloud forest in Carchi, Imbabura, Pichincha (Pululahua Geobotanical Reserve) and Tungurahua. Some of these collections date back over 100 years and fieldwork is needed to evaluate the current situation.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070

**Freziera sessiliflora**
Theaceae
VU D2
Colombia
Occurring in cloud forest, this tree is confined to three localities: Las Orquideas Natural National Park, between Alto del Galápagos, San José del Palmar in Chocó and La Argentina in Huila.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera smithiana**
Theaceae
EN C2b
Colombia
A poorly known species once collected in 1926 in thickets in the vicinity of Las Vegas, Santander.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera spathulifolia**
Theaceae
EN C2b
Peru
Little information on this species is available. It has been collected only once in 1923 from Huánuco.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera stuebelii**
Theaceae
CR C2b
Colombia
Known only from the type collection in Cerro Pataaco in Putumayo, this species has not been seen in the wild since 1869.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera suberosa**
Theaceae
VU D2
Colombia, Ecuador
A cloud forest species occurring in three localities: Tolima in Colombia and from Cantón Montífar in Carchi and Playón de San Francisco in Napo in Ecuador. The Colombian collection dates back over 100 years and its present status is unknown, possibly extinct.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera subintegriifolia**
Theaceae
CR B1+2c
Bolivia
Collections of this species have not been made for over 100 years since it was found in the Yungas, La Paz. The present status of its population is unknown but likely to be seriously threatened, possibly extinct.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13661

**Freziera tomentosa**
Theaceae
LR/nt
Colombia, Ecuador, Peru, Venezuela
Although relatively widespread in areas of cloud forest, this species is rare wherever it occurs. In most of its range the habitat has been degraded or destroyed through burning and encroaching agriculture.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070

**Freziera uncinata**
Theaceae
VU A1c+2c
Bolivia
Several localities, all in the department of La Paz, exist where this species can be found in areas of cloud forest. This habitat has suffered from the encroachment of agriculture and farming activities, burning and overcutting for wood or charcoal production.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070

**Freziera uniauriculata**
Theaceae
CR C2b
Bolivia
Collected over 140 years ago in the department of La Paz from forests above Sandillanti, the current status of this species is not known but is likely to be seriously threatened, possibly extinct. These areas have been seriously degraded by encroaching farming activities, burning and overcutting for wood and charcoal production.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574

**Freziera varibracteata**
Theaceae
CR C2b
Bolivia
This species is known only from the type collection located in Suri-Negracota, in the department of La Paz in 1928. The current status of the population is not known and it is likely to be seriously threatened, possibly extinct. Forested areas have been seriously degraded because of encroaching farming activities, fire and overcutting for wood and charcoal production.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5070, 13574
Species Summaries

**Freziera velutina**
*Theaceae*  
*Colombia*  
A small tree from the edge of secondary forest in an area north-east of Carmen del Atrato, Chocó.  
_Assessor: World Conservation Monitoring Centre_  
Refs: 5070, 13574

**Gaertnera rosea**
*Rubiaceae*  
*South Lanka*  
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
_Assessor: World Conservation Monitoring Centre_  
Refs: 9176, 17195

**Gaertnera ternifolia**
*Rubiaceae*  
*South Lanka*  
During the extensive National Conservation Review forest surveys, this species was found in only two forest localities. It appears to be fairly common in the Peak Wilderness wildlife sanctuary.  
_Assessor: World Conservation Monitoring Centre_  
Refs: 19112

**Galipea ossana**
*Rutaceae*  
*Cuba*  
Discovered in the early 19th century in the area of San Diego, Pinar del Rio Province, another record of this species was made in Habana. No collections or records have been made since.  
_Assessor: Areces-Mallea, A.E._  
Refs: 11403, 18485, 19149

**Garcia nutans**
*Euphorbiaceae*  
*Colombia*  
A small tree, endemic and relatively widely scattered in moist forest in Colombia.  
_Assessor: Calderon, E._  
Refs: 19069

**Garcinia acutifolia**
*Guttiferae*  
*Mozambique, Tanzania*  
A dry coastal forest species which appears to be known from relatively widely separated localities. The Tanzanian population is restricted to the highly disturbed 22km² patch of forest at the Pugu Forest Reserve, near Dar es Salaam. There are also occurrences within the restricted coastal forests of Mozambique, where further fieldwork is needed to consolidate whether the status of the species is more seriously threatened.  
_Assessor: Lovett, J. & G.P. Clarke_  
Refs: 3356, 5204, 7089

**Garcinia afzelii**
*Guttiferae*  
*Côte d'Ivoire, Ghana*  
A species from dry forest fringes and forest outliers. It is locally common but widely exploited as a source of chewsticks.  
_Assessor: Hawthorne, W._  
Refs: 1609, 8369, 12061

**Garcinia bifasciculata**
*Guttiferae*  
*Tanzania*  
A species endemic to Kimboza Forest Reserve, which covers just 4km² of dry coastal forest in the foothills of the Uluguru Mountains. Disturbance has been caused by logging and planting of commercial timbers in the past. The surrounding area is densely populated and the demand for land is strong. Illegal activities and encroachment are currently prevented by two forest guards employed under the Catchment Forestry Project.  
_Assessor: Lovett, J. & G.P. Clarke_  
Refs: 7089, 16796

**Garcinia brevipediculata**
*Guttiferae*  
*Cameroon, Nigeria*  
The range of this small lowland rainforest tree extends from south-east Nigeria to Cameroon. Populations are recorded in the Oban Hills of Cross River National Park in Nigeria and in Korup National Park, Masaka-Batanga and the Douala area in Cameroon. Outside protected areas there has been extensive deforestation.  
_Assessor: World Conservation Monitoring Centre_  
Refs: 11504, 19092

**Garcinia cadelliana**
*Guttiferae*  
*CR B1+2c*  
*India (Andaman and Nicobar Is. - Andaman Is.)*  
A small tree endemic to South Andaman Island apparently occurring in evergreen rainforest. It has not been found since it was first collected and large areas of the species' habitat have been logged and cleared. Intact forest remains in Jarva Reserve, where it is possible the species may still be found.  
_Assessor: World Conservation Monitoring Centre_  
Refs: 4799, 7147

**Garcinia clusiaefolia**
*Guttiferae*  
*Malaysia (Peninsular Malaysia)*  
A tree so far only known from Wray's Camp at Gichon, Pahang at 900m. Only two collections have been made but they are located within the boundaries of Taman Negara National Park.  
_Assessor: World Conservation Monitoring Centre_  
Refs: 8464, 19073

**Garcinia costata**
*Guttiferae*  
*VU D2*  
*Malaysia (Peninsular Malaysia)*  
Little information is available on this species. It is known from two localities, one from Ulu Meral Forest Reserve, Kedah, and the other from Maxwell's Hill, Perak, where it is protected.  
_Assessor: World Conservation Monitoring Centre_  
Refs: 8464, 19073
**Garcinia decussata**
Guttiferae  VU B1+2c
Jamaica
The distribution is disjunct, with occurrences in Clarendon, Manchester and Portland Parishes. The species is confined to damp shady woodlands on limestone. The habitat has been severely degraded and converted into commercial plantations in many places.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

**Garcinia diversifolia**
Guttiferae  LR/cd
Malaysia (Peninsular Malaysia)
A tree widely distributed but scattered in lowland to montane forest, where it is protected within permanent forest reserves.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Garcinia epunctata**
Guttiferae  VU A1cd
Ghana
A species of evergreen Guineo-Congolian forests. Apart from serious habitat losses the species is heavily exploited, with G. afzelii, as a source of chewsticks.
Assessor: Hawthorne, W.
Refs: 8369, 12061

**Garcinia eugeniaefolia**
Guttiferae  LR/cd
Malaysia (Peninsular Malaysia)
Widely distributed, this species occurs in lowland and submontane forest. Populations are conserved in production and protected forests throughout the country. The species might be synonymous with G. rostrata.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Garcinia hermonii**
Guttiferae  LR/cd
Sri Lanka
An understorey tree confined to wet lowland evergreen forest. It is frequent in many forest reserves including Sinharaja Biosphere Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 18515

**Garcinia holltumii**
Guttiferae  VU D2
Malaysia (Peninsular Malaysia)
Confined to the summit of Gunung Belumut in Johore, this forest species is so far known from only three collections, all from the same locality. Gunung Belumut falls within protected forest.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Garcinia imberti**
Guttiferae  EN B1+2c
India (Kerala)
Collected only once, the species occurs in submontane evergreen forest in the Agasthyamalai Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Garcinia kingii**
Guttiferae  EN B1+2c
India (Andaman and Nicobar Is. - Andaman Is.)
A small tree of evergreen rainforest endemic to the Andaman Islands. Very little is known about the species as it has not been collected since it was first discovered. Deforestation has been carried out on a large scale and few intact tracts of forest now remain.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 7147

**Garcinia kola**
Guttiferae  VU A1cd
Democratic Republic of Congo, Ghana
A widespread tree of evergreen forest. It is probably the most important source of chewsticks. Overexploitation has caused population declines. Seedlings are uncommon and slow-growing.
Assessor: Hawthorne, W.
Refs: 5651, 8369, 12061

**Garcinia linii**
Guttiferae  EN B1+2b
Taiwan
Restricted to Lanyu Island, the species occurs in lowland broadleaved forest. The population appears to be healthy but it is unprotected and under considerable threat from the expansion of housing and agriculture in the area.
Assessor: Pan, F.J.
Refs: 3295, 19050

**Garcinia montana**
Guttiferae  VU D2
Malaysia (Peninsular Malaysia)
Known only from a single collection from Mount Oplur in Johore, this species was found in submontane forest. Mount Oplur falls within the protected forests of Johore.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Garcinia paucinervis**
Guttiferae  EN B1+2e
China (Guangxi, Yunnan), Viet Nam
A timber species distributed in forest on limestone, rarely above 600m. Populations are confined to central Guangxi and to Malipo in south-east Yunnan, extending into northern Viet Nam. Large trees have been cut; very few remain. Regeneration also appears to be insufficient.
Assessor: Sun, W.
Refs: 1818, 11847, 19055

**Garcinia quaesita**
Guttiferae  VU A1c
Sri Lanka
A species confined to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

**Garcinia rubro-echinata**
Guttiferae  VU B1+2c
India (Kerala, Tamil Nadu)
The species is largely contained within the Agasthyamalai range. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 19144
**Garcinia semseii**  
Guttiferae  
VU B1+2b, D2  
**Tanzania**  
A widely varying species known only from three localities of moist forest. An occurrence is recorded from the Kimboza Forest Reserve, where 4km² of forest within a densely populated area are protected by two forest guards. There are also populations in the south of the Nguru Mountains and possibly at Chita and Kihansi within the Udzungwa Mountains. The latter occurrence is strange for its high elevation and may be a distinct taxon.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 5204, 11631, 15251

**Garcinia staudtii**  
Guttiferae  
VU A1c, B1+2c  
**Cameroon, Nigeria**  
A morphologically distinctive species. It is confined to forested areas extending from south-east Nigeria to Cameroon. Populations are recorded in the Oban Hills of Cross River National Park in Nigeria and from Douala, Edea and Korup National Park in Cameroon. Outside protected areas large-scale deforestation has taken place.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 11504, 19092

**Garcinia terpophylla var. acuminata**  
Guttiferae  
VU A1c  
**Sri Lanka**  
This variety occurs in the lowland wet evergreen forests of south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17195, 18796

**Garcinia terpophylla var. terpophylla**  
Guttiferae  
VU A1c  
**Sri Lanka**  
A variety occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195

**Garcinia thwaitesi**  
Guttiferae  
EN B1+2c  
**Sri Lanka**  
During the extensive forest surveys by the National Conservation Review, this species was found in only five localities.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 19112

**Garcinia travancorica**  
Guttiferae  
VU B1+2c  
**India (Kerala, Tamil Nadu)**  
Endemic to the Agasthyamalai Hills at the southern end of the Western Ghats, the species occurs in the margins of submontane evergreen forest. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 100Km² of forest are now under protection within sanctuaries.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5651, 19144

**Garcinia wightii**  
Guttiferae  
VU B1+2c  
**India (Kerala)**  
A lowland forest species, known from scattered occurrences in the Western Ghats between Anamalai and Travancore.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Garcinia zeylanica**  
Guttiferae  
EN B1+2c  
**Sri Lanka**  
This species was discovered in only three forest localities during the extensive surveys conducted for the National Conservation Review.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 19112

**Gardenia anapetes**  
Rubiaeae  
CR D1  
**Fiji**  
A small tree of lowland dense forest, confined to southwest Vanua Levu. Only two localities are known: one on Mount Kasi where about 12 plants exist and the type locality on Mount Seaturu.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5515, 6053, 18818

**Gardenia brighamii**  
Rubiaeae  
CR C2a  
**USA (Hawaii)**  
A small tree occurring in a once widespread but unique dry forest type. Although it must have been present on all of the main islands, the population is now reduced to single or small numbers of trees at Honoululi, Puukua and Nanahuli on Oahu, Mauna Loa on Molokai, Kanepuu on Lanai, Olowalu on West Maui and Puuwaawaa on Hawaii. Deer and invasive plants have contributed to the damage and loss of habitat. The species is protected by the US Endangered Species Act.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372

**Gardenia candida**  
Rubiaeae  
CR D1  
**Fiji**  
The species is known only from the type collection, gathered in 1947 from the Seangangga Plateau in the vicinity of Natua, Vanua Levu. Trees were reported to exist in patches of forest in open rolling country.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5515, 6053, 18818

**Gardenia gordonii**  
Rubiaeae  
LR/nt  
**Fiji**  
Occurring in dense or open forest or on forest edges, this shrub or small tree is known from numerous collections from the two largest islands and from Rambi.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5515, 6053, 18818

**Gardenia grievii**  
Rubiaeae  
EN C2a  
**Fiji**  
A shrub or small tree of lowland open forest and thickets. It has been reported to be locally abundant, but presently appears to be confined to a few small populations in the west and north of Vanua Levu.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5515, 6053, 18818
### Gardenia hillii

**Rubiaceae**  
**VU B1+2c**  
**Fiji**  
This lowland shrub or slender tree is recorded from open slopes in dry areas of Mathuata Province on Vanua Levu, from forest on Kandavu and from Rambi Island.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5515, 6053, 18818

### Gardenia manu

**Rubiaceae**  
**CR C2a**  
**USA (Hawaii)**  
This species is known from scattered populations along the length of the Koolau Mountains, from Kaunala Gulch and Kaunala-Waimea Ridge to Palolo, and in the Waianae Mountains, ranging from Haleauau Valley to Kaluwa Gulch on Oahu. The number of populations has steadily decreased. Of the remaining 27 populations, the large majority consist of fewer than five plants and the total number of individuals is thought not to exceed 100. The major threats come from feral pigs and invasive plants. The species is protected by the US Endangered Species Act.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372, 12359, 19168

### Gardenia remyi

**Rubiaceae**  
**VU A1ce**  
**USA (Hawaii)**  
A lowland rainforest tree with an occasional distribution on Kauai, Molokai, Maui and Hilo and Puna Districts on Hawaii.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372

### Gardenia storkii

**Rubiaceae**  
**LR/nt**  
**Fiji**  
Confined to south-east Viti Levu, this slender tree occurs below 150m in areas of dense, dry or secondary forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5515, 18818

### Gardenia transvenulosa

**Rubiaceae**  
**VU B1+2b**  
**Kenya, Tanzania**  
In Kenya this shrubby species is known from the Arabuko-Sokoke forest. It ranges south to south-east Tanzania within dry coastal forest.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 6396, 8814

### Gardenia vitensis

**Rubiaceae**  
**CR D1**  
**Fiji**  
A tree or shrub of lowland areas near the sea, occurring in open forest or on open slopes. It has only been collected from the eastern part of Mathuata Province in Vanua Levu, where a few small populations are known.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5515, 6053, 18818

### Gastonia crassa

**Araliaceae**  
**VU D2**  
**Seychelles**  
A typical understorey component of mist forests on the islands of Mahé, Praslin and Silhouette. Trees are locally abundant and recruitment is good, but the species is sensitive to habitat disturbance. The main populations are contained within protected areas.  
**Assessor:** Nature Protection Trust of Seychelles  
**Refs:** 9859, 17229, 19023, 19025, 19062

### Gastonia lioi

**Araliaceae**  
**CR A2c, D1**  
**Seychelles**  
At present the species is known from two mature individuals in Mission Casse Dent on Mahé Island. One is found in secondary forest, the other in a tea estate. There is evidence of seed germination but no young plants are surviving. It has been suggested that the species is the result of a cross between *G. sechellarum* and *G. crassa* and that may provide the reason why recruitment is low. The results of research into the genetic profiles of these species is soon to be made available.  
**Assessor:** Nature Protection Trust of Seychelles  
**Refs:** 10610, 19023, 19025, 19062

### Gastonia mauritiana

**Araliaceae**  
**CR C2a, D1**  
**Mauritius**  
The known populations of this succulent heterophyllous tree are very small. They occur in forest on the east coast and in Yemen on the mainland and also on Ile aux Aigrettes, where active management of exotic species is aiding regeneration of native species.  
**Assessor:** Page, W.  
**Refs:** 1411, 8106, 9120, 16426

### Gastonia rodriguesiana

**Araliaceae**  
**CR A1c, B1+2e, D1**  
**Mauritius (Rodrigues)**  
Less than 50 individuals exist in the wild as isolated specimens on calcarenite and basalt, mainly on Plaine Corail. Attempts at propagation have been successful and young specimens have been planted in the wild.  
**Assessor:** Strahm, W.  
**Refs:** 9426, 16426, 19208

### Gastonia sechellarum var. contract

**Araliaceae**  
**CR B1+2de**  
**Seychelles**  
Found only in a single patch of moist forest near Mission Casse Dent, this variety is presently protected in Morne Seychellois National Park. The most serious threats come from invasive plants and encroaching housing developments. Work is being carried out to consolidate the taxonomic status of the three varieties, although material for var. *curiosae* is insufficient.  
**Assessor:** Carlstrom, A.  
**Refs:** 10610, 19023

### Gastonia sechellarum var. curiosae

**Araliaceae**  
**CR A1e, B1+2e, D1**  
**Seychelles**  
The species is known from a single small tree confined to a rocky crevice on the island of Curieuse. Regeneration is not evident and infestations of weevils and other insects are a problem. Work is being carried out to consolidate the taxonomic status of the three varieties, although material from this variety is insufficient.  
**Assessor:** Carlstrom, A.  
**Refs:** 10610, 19023, 19025

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**Gastonia sechellarum var. sechellarum**

Araliaceae VU A1c, D2

Seychelles

An understorey tree confined to remnant populations in moist forest on the islands of Mahé, Praslin, Silhouette and Felcita. Most populations are contained within areas which are protected. However, poor recruitment and the continuing marginalisation and degradation of the habitat continue to cause declines. Work is being carried out to consolidate the taxonomic status of the three varieties, although material for var. curiosae is insufficient.

Assessor: Carlstrom, A.
Refs: 17229, 19023, 19025

**Gauussia attenuata**

Palmae VU B1+2c

Puerto Rico

A palm tree confined to steep-sided, extremely well-drained limestone hills in Puerto Rico.

Assessor: Henderson, A.
Refs: 19118

**Gauussia gomez-pompae**

Palmae VU A1c

Mexico (Oaxaca, Tabasco, Veracruz)

An endemic palm of Mexico scattered in forest in steep, rocky places on limestone soils.

Assessor: Quero, H.J.
Refs: 7980, 12985, 15251, 16516, 19118

**Gauussia maya**

Palmae VU D2

Belize, Guatemala, Mexico

A forest species, scattered in rocky places on limestone soils at low elevations. The population size is small.

Assessor: Quero, H.J.
Refs: 19118

**Gauussia spiruana**

Palmae EN C2a, D1

Cuba

An endemic to Jatibonico, a limestone plateau in central Cuba. Fewer than 150 mature trees remain in five populations.

Assessor: Moya, C.
Refs: 19118

**Geijera salicifolia**

Rutaceae LR/nt

Australia (New South Wales, Queensland), New Caledonia, Papua New Guinea

A timber species, which in New Guinea is mainly confined to the Bulolo/Wau region of Morobe Province. This region was once heavily exploited, logged and converted into Araucaria plantations. It is not known exactly how many mature specimens remain here and this subpopulation is considered to be critically endangered.

Assessor: World Conservation Monitoring Centre
Refs: 19114

**Geissanthes challuayacu**

Myrsinaceae VU D2

Ecuador

Known only from Volcán Sumaco in Napo Province, on the eastern slopes of the Andes, the species occurs in a very restricted area of lower montane forest. The province has experienced considerable forest destruction but it is not known how this population has been affected.

Assessor: World Conservation Monitoring Centre
Refs: 2909, 6362

**Geissanthes eucatorensis**

Myrsinaceae VU B1+2c

Ecuador

An endemic tree of Ecuador, currently only known to occur in cloud forest between 2200 and 2600m in Bolívar and Loja Provinces.

Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

**Geissanthes pichinchae**

Myrsinaceae VU B1+2c

Ecuador

Endemic to Ecuador, the species is currently known only from areas of cloud forest between 2700 and 3400m in Napo, Pichincha and Cotopaxi Provinces.

Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

**Geissanthes vanderweeffii**

Myrsinaceae LR/nt

Ecuador

A small understorey tree endemic to the south-central Andes in Ecuador. It is locally common in areas of elfin forest and scrub cloud forest. A sizeable population is protected in a national park.

Assessor: World Conservation Monitoring Centre
Refs: 2909, 6362

**Geisssois imthurnii**

Cunoniaceae EN D1

Fiji

A small sturdy tree, usually found in dense forest between 500 and 900m, only in northern Viti Levu, principally in the vicinity of Nandarivatu. A single collection has also been taken from the Nausori Highlands. Each locality harbours about 40-50 individuals, the total population probably not exceeding 200 individuals.

Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

**Geisssois stipularis**

Cunoniaceae EN D1

Fiji

Known only with certainty from Viti Levu, the species is restricted to a few localities of dense, open or dry forest, each containing 30-40 plants.

Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

**Geisssois superba**

Cunoniaceae VU D1

Fiji

A small tree of dense forest or forest edges, only in Viti Levu. The total population consists of a few hundred plants.

Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

**Geisssois ternata var. minor**

Cunoniaceae EN D1

Fiji

This small gnarled tree is known from the two major Fijian islands. It occurs in dense forest and thickets on
exposed ridges and open slopes at comparatively high elevations. Three or four populations are known, containing 50 plants each.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Geniostoma ternata var. serrata
Cunoniaceae
Fiji
The only known collection was made in 1937 from Waya Island, Yasaswas. It was said to be locally common and used in house-building, but no additional material has been gathered.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Geniostoma astylum
Loganiaceae
French Polynesia (Society Is.)
Populations occur on Moorea and Tahiti.
Assessor: Florence, J.
Refs: 14513

Geniostoma clavigerum
Loganiaceae
Fiji
So far known only from north-west Viti Levu, the species occurs in dense wet forest between 800 and 1190m on Mount Evans and Mount Lomalagi. Each population consists of between 12 and 20 individuals.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Geniostoma gagneae
Loganiaceae
French Polynesia (Marquesas Is.)
An endemic to Fatu Hiva.
Assessor: Florence, J.
Refs: 14513

Geniostoma hallei var. fatauivense
Loganiaceae
French Polynesia (Marquesas Is.)
An endemic to Fatu Hiva.
Assessor: Florence, J.
Refs: 14513

Geniostoma hallei var. hivaoense
Loganiaceae
French Polynesia (Marquesas Is.)
An endemic to Hiva Oa.
Assessor: Florence, J.
Refs: 14513

Geniostoma macrophyllum
Loganiaceae
Fiji
A shrub or slender tree of lowland forest, thickets, rocky areas or sea cliffs on limestone. Populations are rare on the six islands where it is known in Fiji. It may be more abundant on Tonga.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Geniostoma rupestris var. rouffaeranum
Loganiaceae
Papua New Guinea
This variety is known from a single site, where it occurs commonly, on the banks of the Rouffaer River in Jayapura District.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Geniostoma stipulare
Loganiaceae
Fiji
Known only from four localities, this slender tree or shrub is confined to areas of undisturbed dense forest on Viti Levu and Vava Levu. Each site harbours about 20–30 plants.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Geniostoma umbellatum
Loganiaceae
Papua New Guinea (North Solomons)
A small semi-erect tree found only once on Guadacanal in hillside secondary forest on well-drained soil.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Genilea molinae
Myrsinaceae
Honduras
A species of submontane forest.
Assessor: Nelson, C.
Refs: 8553, 13995

Genilea vatteri
Myrsinaceae
El Salvador, Guatemala
In El Salvador the species is confined to cloud forest, where it ranges from 1500 to 3000m. Threats are posed mainly by fires and tourism. More information is required on the population status in Guatemala.
Assessor: World Conservation Monitoring Centre
Refs: 19030

Geoffroea decorticans var. subtropicalis
Leguminosae
Argentina (Jujuy, Salta), Bolivia
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122

Gesneria calycina
Gesneriaceae
Jamaica
Known only from the northern parts of John Crow Mountains, the species is found in areas of moist shady woodland on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980
**Gesneria calycosa**
Leguminosae  
Jamaica
A small tree or shrub with populations occurring occasionally in western parishes in shaded gullies and on sheltered banks.
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

**Gesneria scabra var. fawcettii**
Leguminosae  
Jamaica
Once recognised as a distinct species, this variety is known from just one collection on a damp shady limestone bank in Westmoreland.
Assessor: World Conservation Monitoring Centre  
Refs: 5653

**Gigasiphon macrocephalum**
Leguminosae  
Kenya, Tanzania
A species of ornamental interest, known from moist coastal forest in Mrima Forest Reserve, Marenje Forest Reserve, Kaya Muhaka National Monument and Gongoni Forest Reserve in Kenya and the Rondo Plateau in Tanzania. Destruction and degradation of coastal forest is ongoing.
Assessor: CAMP Workshop in Kenya  
Refs: 3356, 3925, 5654, 6396, 19181

**Gilbertiodendron bilineatum**
Leguminosae  
Côte d'Ivoire, Ghana, Liberia, Sierra Leone
Scattered along riversides in wet evergreen forest from Sierra Leone to Ghana, this species is very rare and has disappeared from previously recorded localities. Habitat losses have been caused by mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.  
Refs: 7550, 8369, 12061

**Gilbertiodendron klainei**
Leguminosae  
Gabon
This species has been collected only from Libreville. The habitat has been extensively logged. Much of the forest in the country remains unexplored and relatively intact, although large parts of it are now under concession to logging companies.
Assessor: World Conservation Monitoring Centre  
Refs: 14958, 15790

**Gilbertiodendron pachyanthum**
Leguminosae  
Cameroon
A large canopy tree endemic to Bipindi, where it occurs sparsely in lowland rainforest. The habitat is frequently cleared for agriculture and settlements.
Assessor: World Conservation Monitoring Centre  
Refs: 12597

**Gilbertiodendron robynsinianum**
Leguminosae  
Côte d'Ivoire
A species of swampy areas. It is endemic to the remaining forest between the rivers Sassandra and Cavally. The largest part of the population is contained within the 3300km² of Tai National Park, outside which deforestation and habitat degradation have been severe in the past three decades.
Assessor: Assi, A.  
Refs: 2773, 12822

**Gilbertiodendron splendidum**
Leguminosae  
Côte d'Ivoire, Ghana, Sierra Leone
A gregarious tree, occurring in swamps in the restricted wet evergreen forest habitat in the Upper Guinea region. Habitat declines have been caused by mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.  
Refs: 8369, 12061

**Gilletiodendron glandulosum**
Leguminosae  
Mali
This tree is confined to rocky wooded areas which are sheltered from fire in a region in the south-west defined by three points, Kita, Bagoualé and Kéméba. It is a significant component of Kololo forest. The present population is a remnant of what was once a widespread species, which has declined because of climatic reasons and fire. Although it flowers and fruits abundantly and germinates well, there is no evidence of colonisation in new areas.
Assessor: World Conservation Monitoring Centre  
Refs: 3640, 7439

**Ginkgo biloba**
Ginkgoaceae  
China (Zhejiang)
The wild populations of this widely planted ornamental tree are apparently confined to Xitianmu Mountain, Zhejiang, where they are scattered in broadleaved forests up to 1100m. This is the only species in the genus. It is long-living and has an ancient geological record, appearing in the Jurassic. The species has been widespread in cultivation for several centuries.
Assessor: Sun, W.  
Refs: 1818, 11847

**Ginoria nudiflora**
Lythraceae  
Mexico (Chiapas, Oaxaca, Veracruz)
A relatively widespread rainforest tree, endemic to Mexico. It occurs in both Gulf and Pacific regions, sometimes in drier forest types.
Assessor: World Conservation Monitoring Centre  
Refs: 1966, 5993, 19124

**Gleditsia assamica**
Leguminosae  
India
Occurring in the Aka Hills, Naga Hills and Garo Hills, the species is found in open situations in evergreen forest. No recent collections have been made and the species is believed to have become scarce. Encroaching agriculture has caused declines in the species' habitat.
Assessor: World Conservation Monitoring Centre  
Refs: 4799

**Gleditsia rolfei**
Leguminosae  
Taiwan
A species which is confined to the Hengchun Peninsula, south of Fengkang. It occurs in lowland dry forest in

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*Species Summaries*
small populations, all of which are contained within Kenting National Park. Local people frequently collect wood for charcoal production. The habitat is also believed to be declining because of encroaching settlements and grazing. 

Assessor: Lu, S.Y. & F.J. Pan  
Refs: 3295, 9379, 19050, 19053

Gledisia vestita  
Leguminosae  
China (Hunan)  
A species reduced to two surviving individuals on the south-east slopes of Mount Hengshan, where it reaches the lower limit of mixed forest. The two trees are protected and attempts to propagate the species are under way.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 11847

Gleinia penangensis  
Sapindaceae  
Malaysia (Peninsular Malaysia)  
A species which occurs throughout Peninsular Malaysia in lowland and hill forests up to 900m.  
Assessor: Chua, L.S.L.  
Refs: 8464, 19073

Gleinia unijuga  
Sapindaceae  
Sri Lanka  
A tree found mainly in the lowland wet evergreen forests of south-west Sri Lanka. This rare species was discovered in nine sites during the extensive forest surveys conducted for the National Conservation Review.  
Assessor: World Conservation Monitoring Centre  
Refs: 9176, 17195, 19112

Glionnetia sericea  
Rubiacceae  
Seychelles  
Endemic to the Seychelles, the species occurs within a very restricted area (<1000ha) on Mahé and Silhouette. Populations are healthy and stable.  
Assessor: Nature Protection Trust of Seychelles  
Refs: 16212, 17229

Glochidion bourdilloni  
Euphorbiaceae  
India (Kerala)  
A rarely collected species of forest margins, occurring from low to medium altitudes at the southern end of the Western Ghats.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

Glochidion carrickii  
Euphorbiaceae  
Malaysia (Peninsular Malaysia)  
Known only from two collections from a single locality, the species is confined to lowland forest in Gambak Forest Reserve, a permanent reserve in Selangor.  
Assessor: World Conservation Monitoring Centre  
Refs: 8464, 19073

Glochidion comitum  
Euphorbiaceae  
Pitcairn Islands  
A newly described species, apparently endemic to Pitcairn Island, where it is widespread in disturbed scrub and open forest. There are relatively few large individuals, but many shrubby specimens which appear to have reached flowering age. Probably 500–1000 mature individuals exist. The timber was heavily exploited in the past for making into joists in construction. There has also been considerable habitat loss and degradation with the spread of exotic plants.  
Assessor: Waldren, S. & N. Kingston  
Refs: 13604, 19154

Glochidion ellipticum var. ralphii  
Euphorbiaceae  
India (Kerala)  
Known from two collections, this variety appears to be endemic to the Travancore range, occurring in submontane evergreen forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

Glochidion grantii  
Euphorbiaceae  
French Polynesia (Society Is.)  
Occurring in the same lagoon on the sister islands of Tahaa and Raiatea, the species is localised on the summittal crest of Mount Ohiri on the former and scattered on the plateaux of Temehani Raihi and Temehani Ute Ute on the latter. The populations are fragmented and reduced in extent.  
Assessor: Florence, J.  
Refs: 19169

Glochidion insulare  
Euphorbiaceae  
Malaysia (Peninsular Malaysia)  
The exact locality of the species remains unknown. It has been collected only once from primary forest in Penang. Most of the forest in the area has been cleared for development.  
Assessor: Kochummen, K.M.  
Refs: 8464, 19073

Glochidion johnstonei  
Euphorbiaceae  
India (Goa, Kerala)  
Although relatively wide-ranging, the species is known from only a few collections taken from areas of submontane evergreen forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

Glochidion manono  
Euphorbiaceae  
French Polynesia (Society Is.)  
Populations occur on Moorea and Tahiti, where the species is most seriously threatened.  
Assessor: Florence, J.  
Refs: 14513

Glochidion nadeaudii  
Euphorbiaceae  
French Polynesia (Society Is.)  
A small tree, endemic to Moorea, occurring in the north between 420 and 800m. It is usually found in local abundance in mesophyllous open forest on crests. The populations are small and fragmented.  
Assessor: Florence, J.  
Refs: 19169
Glochidion papenoense
Euphorbiaceae  
French Polynesia (Society Is.)  
A shrub or tree at the edge of riverine forest, confined to a single location in the Papeno Valley. A hydroelectric project has been responsible for the destruction of large parts of the natural vegetation in the valley and the invasion of *Miconia calvescens* also presents a threat to the survival of the species.
Assessor: Florence, J.  
Refs: 19169

Glochidion paucaeflorum
Euphorbiaceae  
India (Karnataka, Tamil Nadu)  
A poorly known species of montane forest, which has been collected once from the Bababudan range and twice from the Nilgiri range. It has also been recorded from an unspecified location in the Palni area.
Assessor: World Conservation Monitoring Centre  
Refs: 19144

Glochidion pitcairnense
Euphorbiaceae  
Pitcairn Islands  
A small tree known only from Henderson and Pitcairn Islands. On Henderson the species is relatively common, numbering about 20,000 individuals in plateau and beach forest. The population is smaller, with fewer than 500 individuals, on Pitcairn, confined to remnant forest and scrub, where it is threatened with cutting and the spread of the invasive *Syzygium jambo*. No regeneration has been observed. Henderson Island is a World Heritage Site.
Assessor: Waldren, S. & N. Kingston  
Refs: 5123, 12900, 14513, 16427, 19154

Glochidion raivavense
Euphorbiaceae  
French Polynesia (Tubuai Is.)  
Known only from the Tubuai Islands, the species is recorded from Raivaveu, Runuru and Tubuai.
Assessor: Florence, J.  
Refs: 12900, 14513

Glochidion rapaense
Euphorbiaceae  
French Polynesia (Tubuai Is.)  
A shrub or very small tree of mesophyllous or riverine forest, humid rocks or cliffs in mountain or littoral areas. It appears to be relatively common but never abundant.
Assessor: Florence, J.  
Refs: 19169

Glochidion sisparense
Euphorbiaceae  
India (Tamil Nadu)  
The species occurs in a single locality of montane forest in the Nilgiris.
Assessor: World Conservation Monitoring Centre  
Refs: 19144

Glochidion stylosum
Euphorbiaceae  
Malaysia (Peninsular Malaysia)  
The species is known from a single collection, gathered from submontane forest at the base of Fraser's Hill in Pahang.
Assessor: Kochummen, K.M.  
Refs: 8464, 19073

Glochidion symingtonii
Euphorbiaceae  
Malaysia (Peninsular Malaysia)  
Confined to Gunung Peninjau in Perak, the species has been collected twice from a single locality of forest at 840m. The area is contained within the protected forests of Perak.
Assessor: World Conservation Monitoring Centre  
Refs: 8464, 19073

Glochidion tomentosum
Euphorbiaceae  
India (Karnataka, Tamil Nadu)  
Occurring on forest margins, the species has been collected only rarely from sites at medium elevation in southern Karnataka. It has also apparently been found in the Travancore range.
Assessor: World Conservation Monitoring Centre  
Refs: 19144

Glochidion toovianum
Euphorbiaceae  
French Polynesia (Marquesas Is.)  
A small tree confined to the Toovii Plateau in the central part of Nuku Hiva. It has been collected between 710 and 1000m from primary riverine forest, on moist forested crests, in secondary forest and relict forest within pasture land. Although restricted in range, the species is relatively common.
Assessor: Florence, J.  
Refs: 19169

Gloeocarpus patenivalvis
Sapindaceae  
Philippines  
A rare tree restricted to the primary dipterocarp forests of Mindanao, Samar, Leyte and Luzon.
Assessor: van Welzen, P.C.  
Refs: 18389

Gloeospermum boreale
Violaceae  
Honduras  
Only a small population is known, occurring in the wet Atlantic lowlands.
Assessor: Nelson, C.  
Refs: 13995

Gluema ivorensis
Sapotaceae  
Cameroon, Côte d'Ivoire, Gabon, Ghana  
This is a rare species confined to wet places in wet evergreen forest on either side of the Dahomey Gap. Its habitat has been severely degraded through mining, logging and commercial forestry activities throughout its range. It is the only member of the genus.
Assessor: Hawthorne, W.  
Refs: 2773, 8369, 12061, 12509

Gluta papuana
Anacardiaceae  
Indonesia? (Irian Jaya?), Papua New Guinea  
Endemic to New Guinea, this tree grows in seasonally inundated forest along rivers, in freshwater swamps and
on well-drained soils up to 50m. In Papua New Guinea it is restricted to Gulf and Western Provinces, which are now subject to heavy logging activities. The timber is sought-after for its decorative grain.

Assessor: Eddowes, P.J.
Refs: 19114

**Gluta travancorica**
Rutaceae

Anacardiaceae

India (Kerala, Tamil Nadu)

A well-collected species, endemic to submontane forest running the length of the Agasthyamalai Hills

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Glycosmis chlorosperma** var. **bidensis**
Rutaceae

VU D2

Malaysia (Sarawak)

Known only from the type locality, this variety is found on limestone near the Bidi Cave, Kuching.

Assessor: World Conservation Monitoring Centre
Refs: 19017

**Glycosmis crassifolia**
Rutaceae

CR B1+2c

Malaysia (Peninsular Malaysia)

Confined to the state of Malacca this very rare tree of lowland rainforest is under threat from increasing settlement of the area.

Assessor: Chua, L.S.L.
Refs: 8464, 14541, 19073

**Glycosmis decipiens**
Rutaceae

LR/cd

Malaysia (Peninsular Malaysia)

A species of rainforest and swamp forest, distributed in the states of Terengganu, Pahang, Negeri Sembilan and Johore. A protected population is found in Taman Negara National Park.

Assessor: Chua, L.S.L.
Refs: 8464, 14541, 19073

**Glycosmis longisepala**
Rutaceae

VU D2

Malaysia (Sarawak)

A small forest tree known only from Mount Puch. This small tree is known only from primary forest in Palawan in the Philippines and a single sterile collection from a coastal limestone ridge on Balambangan Island, Sabah. The main island of Palawan is a biosphere reserve.

Assessor: World Conservation Monitoring Centre
Refs: 4986, 19017

**Glycosmis monticola**
Rutaceae

EN D1

Malaysia (Peninsular Malaysia)

A shrub or small tree confined to hill forest on Mount Oplur in Johore State.

Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Glycosmis perakensis**
Rutaceae

VU D2

Malaysia (Peninsular Malaysia)

A small tree of hill forest, confined to Bubu Forest Reserve, Perak.

Assessor: Chua, L.S.L.
Refs: 14541, 19073

**Glycosmis tomentella**
Rutaceae

EN B1+2c

Malaysia (Peninsular Malaysia)

A very rare shrub or small tree confined to a single locality in Selangor.

Assessor: Chua, L.S.L.
Refs: 14541, 19073

**Glyphaea tomentosa**
Thiaceae

DD

Mozambique

The range of this species is small and confined to central Mozambique. Information is too limited to evaluate the species.

Assessor: Bandeira, S.
Refs: 5117, 18965

**Glyptostelatum lawsonii**
Celastraceae

VU B1+2c

India (Tamil Nadu)

Confined to the Western Ghats within an area stretching from the Nilgiri Hills to a site at the north of Shencottah, this understory tree has been rarely collected from scattered sites within submontane evergreen forest.

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Glyptostelatum palawanense**
Celastraceae

VU B1+2c

Malaysia (Sabah), Philippines

This small tree is known only from primary forest in Palawan in the Philippines and a single sterile collection from a coastal limestone ridge on Balambangan Island, Sabah. The main island of Palawan is a biosphere reserve.

Assessor: World Conservation Monitoring Centre
Refs: 4986, 19017

**Glyptostrobos pensilis**
Taxodiaceae

DD

China (Fujian, Guangdong, Guangdong - Hainan, Guangxi, Jiangxi, Sichuan, Yunnan), Viet Nam

The only extant species of a genus which was species-rich in the Tertiary period. It is a prime timber tree, scattered in south and south-east China in areas which are densely populated. Primary localities exist in the Zhujiang Delta and the lower reaches of the Minjiang River. Populations in Viet Nam were once common but are now reduced to fewer than 100 individuals in a few sites of swamp forest in Dac Lac Province (CR A1cd). The population in Krang Bak Nature Reserve is protected, but regeneration is reported to be non-existent.

Assessor: SSC Conifer Specialist Group
Refs: 374, 848, 2901, 11191, 11530, 11847, 15357

**Gmelina hainanensis**
Verbenaceae

VU B1+2c

China (Guangdong - Hainan), Viet Nam

In China the species is known only from rainforest in the mountain ranges of the south and west of Hainan Island. In Viet Nam it is recorded from Quanh Ninh Province, where it occurs in lowland evergreen monsoon forest. Although parts of the range are designated nature reserves, the habitat is generally subject to logging and clearance.

Assessor: World Conservation Monitoring Centre
Refs: 1818, 11530, 11847, 15357
Gmelina lignum-vitreum
Verbenaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Gmelina viitensis
Verbenaceae
Fiji
A relatively tall tree which supplies good furniture wood. It has been well collected from dense forest between 90 and 900m in Viti Levu, Kadavu, Ngau and Vanua Levu.
Assessor: World Conservation Monitoring Centre
Refs: 18818

Goetzea elegans
Goetzeeaceae
Puerto Rico
A small understory tree of limestone forest, recorded from eight populations of between 100 and 125 individuals. They are unprotected and experiencing various pressures. Road widening destroyed six individuals, which have since been replaced by numerous root suckers. Construction of a hotel complex, pipe-laying and predation of flowers are amongst the major concerns.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124, 17540

Gomidesia cambessededana
Myrtaceae
Brazil (Rio de Janeiro)
The species was collected twice in the early part of the 19th century, but since then it has not been found.
Assessor: Pires O’Brien, J.
Refs: 19097

Gomidesia magnifolia
Myrtaceae
Brazil (Rio de Janeiro)
First described in 1857, the species has only recently been rediscovered from a population in the Poça d’Antas Biological Reserve.
Assessor: Pires O’Brien, J.
Refs: 19097

Gomortega keule
Gomortegaceae
Chile (Biobío, Maule)
A species of taxonomic interest, belonging to an ancient monotypic family. It is known from a very restricted distribution in the Coastal Cordillera of central Chile, occurring in forest on the south-facing slopes of humid ravines. The populations are unprotected and under threat from logging and forest management activities, fire and agricultural encroachment.
Assessor: González, M.
Refs: 7980, 13628, 16328

Gomphandra comosa
Icacinaceae
India (Andaman and Nicobar Is. - Andaman Is., Andaman and Nicobar Is. - Nicobar Is.)
A small tree of evergreen forest confined to the Nicobar and Andaman Islands. Large areas of forest have been logged and lost to increasing agriculture and settlement.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 7147

Gongrospermum philippinense
Sapindaceae
Philippines
This forest species is endemic to Luzon and known only from one or two collections.
Assessor: van Welzen, P.C.
Refs: 18389

Goniothalamus calycinus
Annonaceae
Malaysia (Peninsular Malaysia)
Confined to Terengganu in lowland forest, this tree is mainly found on Bukit Kajong, which is a protected forest.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Goniothalamus gardneri
Annonaceae
Sri Lanka
This species was discovered in only four forest localities during the extensive surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 19112

Goniothalamus hollttumii
Annonaceae
Malaysia (Peninsular Malaysia)
Confined to Fraser’s Hill by the Selangor border, this montane forest tree is known from a single locality. The main threat to the area is tourism. It is hoped that the proposed route of a new highway which is planned will not affect the population.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Goniothalamus hookeri
Annonaceae
Sri Lanka
A tree confined to the lowland wet evergreen forests of south-west Sri Lanka. This species was discovered in only six forest localities during the extensive surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 19112

Goniothalamus macrocalyx
Annonaceae
Viet Nam
The species appears to be endemic to a restricted area in the north, confined to the provinces of Ha Tay, Hoa Binh and Thanh Hoa.
Assessor: Ban, N.T.
Refs: 848, 19060

Goniothalamus majestatis
Annonaceae
Indonesia (Sulawesi)
A treelet restricted to the coralline limestone or serpentine soils of central and south-east Sulawesi. The species is only recently described and is known from three collections.
Assessor: World Conservation Monitoring Centre
Refs: 11509

Species Summaries

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Goniothalamus montanus
Annonaceae VU D2
Malaysia (Peninsular Malaysia)
Confined to montane forest in Ulu Brang in Terengganu and the Cameron Highlands in Pahang, this tree is known only from two collections. Both localities fall within protected forest.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

Goniothalamus rhyynchanthus
Annonaceae EN B1+2c
India (Kerala, Tamil Nadu)
A species confined to the Agastyamalai Hills at the southern end of the Western Ghats, where it is scattered in a few localities of evergreen forest. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 2538, 5651, 19144

Goniothalamus salicina
Annonaceae VU A1c
Sri Lanka
This species was discovered in 13 forest localities during the extensive surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 19112

Goniothalamus simonsii
Annonaceae EN B1+2c
India (Meghalaya)
A small tree of the Khasi Hills. It is known only from the Lailad area of Nongkyllen Forest Reserve in Meghalaya.
Assessor: World Conservation Monitoring Centre
Refs: 7147

Goniothalamus wynaadensis
Annonaceae LR/nt
India (Kerala, Tamil Nadu)
Occurring in the understorey of lowland evergreen forest up to 900m, the species has been collected from scattered localities along the Western Ghats from Wayanad to Anaimalai.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Gonystylus bancanus
Thymelaeaceae VU A1cd
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A gregarious, often dominant tree of lowland freshwater swamp and peat-swamp forest. Populations have been heavily depleted as the most important source of ramin timber. The species is also threatened in parts of its range by habitat loss. A recent investigation by Dutch and Malaysian experts, following *CITES* debates on the species, concluded that *G. bancanus* is not threatened with extinction in Malaysian swamp forests although regeneration in overexploited forests may be a cause for concern.
Assessor: World Conservation Monitoring Centre
Refs: 7673, 14448, 14573, 17140, 19202

Gonystylus calophyloides
Thymelaeaceae VU A1c+2c
Malaysia (Sarawak)
A small tree found growing on the banks of rocky streams. It is endemic to north-east Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 1766

Gonystylus consanguineus
Thymelaeaceae VU A1cd+2cd
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A lowland species, of primary or old secondary forest up to 400m altitude, which is exploited for its ramin timber.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 14573

Gonystylus costalis
Thymelaeaceae VU A1c+2c
Malaysia (Sarawak)
A small tree endemic to the lowlands of Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 1766

Gonystylus decipiens
Thymelaeaceae VU A1c+2c
Sarawak
A small tree endemic to Sarawak up to 500m.
Assessor: World Conservation Monitoring Centre
Refs: 1766

Gonystylus glaucescens
Thymelaeaceae VU A1c+2c
Indonesia (Kalimantan)
A small tree endemic to East Kalimantan. It has been recorded on a sandstone ridge at 400m.
Assessor: World Conservation Monitoring Centre
Refs: 1766

Gonystylus keithii
Thymelaeaceae VU A1cd+2cd
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A tree scattered in the evergreen, non-inundated rainforests ofborneo. The wood is used as ramin timber.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 14573

Gonystylus lucidulus
Thymelaeaceae VU A1c+2c
Brunei, Malaysia (Sarawak)
A tree confined to the lowlands of Brunei and Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 1766

Gonystylus macrophyllus
Thymelaeaceae VU A1cd
Indonesia (Bali, Irian Jaya, Kalimantan, Moluccas, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia), Papua New Guinea (North Solomons, Papua New Guinea), Philippines?, Solomon Islands (South Solomons)
A widespread tree occurring in primary forest reaching an altitude of 1500m in some areas. The species is extremely rare in Papua New Guinea and occurs only on New Georgia and Choiseul in the Solomon Islands, where it is locally common. It is one of the important ramin timber species and the heartwood is used as

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incense. This species might eventually be split into several distinct species, as the present species concept might be too wide.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1766, 4919, 12937, 14573, 17140, 19147

**Gonystylus nervosus**
Thymelaeaceae  
Malaysia (Sarawak)  
Apparantly restricted to limestone hills, this small tree is endemic to Sarawak.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1766

**Gonystylus nobilis**
Thymelaeaceae  
Malaysia (Sarawak)  
A lowland species endemic to Sarawak.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1766

**Gonystylus pendulus**
Thymelaeaceae  
Malaysia (Sarawak)  
A small tree confined to the lowlands of south-west Sarawak.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1766

**Gonystylus spectabilis**
Thymelaeaceae  
Malaysia (Sarawak)  
A lowland tree endemic to Sarawak.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1766

**Gonystylus stenoepalus**
Thymelaeaceae  
Malaysia (Sarawak)  
A small tree endemic to Sarawak.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1766

**Gonystylus xylocarpus**
Thymelaeaceae  
Indonesia (Kalimantan), Malaysia (Sarawak)  
A tree of primary rainforest and heath forest up to 100m, confined to western Borneo. The species is exploited for its ramin timber.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 14573

**Gordonia hirtella**
Theaceae  
Malaysia (Peninsular Malaysia)  
A tree species occurring scattered in hill forest.

**Assessor:** Chua, L.S.L.
**Refs:** 5550, 11647, 19073

**Gordonia maingayi**
Theaceae  
Malaysia (Peninsular Malaysia)  
This tree species is scattered on the ridge tops and hillside of rainforests within a national park.

**Assessor:** Chua, L.S.L.
**Refs:** 8464, 19073

**Gordonia multineris**
Theaceae  
Malaysia (Peninsular Malaysia), Singapore  
This tree occurs in lowland and hill forest of Perak, Kelantan, Terengganu, Pahang, Penang, Malacca, Johore and Singapore. Encroaching settlements are the largest threat to the species.

**Assessor:** Chua, L.S.L.
**Refs:** 9199, 17140, 19073

**Gordonia penangensis**
Theaceae  
Malaysia (Peninsular Malaysia), Singapore  
A small tree inhabiting open rainforest between 20 and 500m in Penang, Perak, Pahang and Singapore.

**Assessor:** Chua, L.S.L.
**Refs:** 9199, 19073

**Gordonia scortechinii**
Theaceae  
Malaysia (Peninsular Malaysia)  
A very rare tree occurring scattered in the hill forest of Perak and Pehang.

**Assessor:** Chua, L.S.L.
**Refs:** 8464, 19073

**Gordonia singaporeana**
Theaceae  
Malaysia (Peninsular Malaysia)  
A tree of moist forest up to 1300m, found in Perak, Pahang, Penang, Negeri Sembilan, Malacca, Johore and Singapore. Some areas receive a degree of protection within the permanent forest estate.

**Assessor:** Chua, L.S.L.
**Refs:** 5550, 8464, 9199, 11647, 17140, 19073

**Gordonia taipingensis**
Theaceae  
Malaysia (Peninsular Malaysia)  
This rare, medium-sized tree is confined to the hills of one forest reserve in the state of Perak. Tourism presents the main threat to the species.

**Assessor:** Chua, L.S.L.
**Refs:** 8464, 19073

**Gordonia villosa**
Theaceae  
Jamaica  
A recent taxonomic revision includes this species in the relatively common *G. haematoxylyn* but this arrangement is disputed. The plant is stunted and seldom exceeds 2m in height because it grows in nutrient-starved conditions on deep acid mor humus. Endemic to the Blue Mountains, small populations are restricted to a very small range in montane rainforests between 1550 and 1700m.

**Assessor:** Bellingham, P.
**Refs:** 19116

**Gossweilerodendron balsamifera**
Leguminosae  
Africa  
This tree species is declining in population numbers because of heavy exploitation and habitat loss. It grows in mature...
little-disturbed lowland rainforest. In the main DR Congo/Nigeria forest block it is generally rare or absent.

**Assessor:** African Regional Workshop  
**Refs:** 2362, 2773, 6718, 15790, 17408

**Graffenrieda bella**  
Melastomataceae  
Panama  
One of the most common forest trees, the species occurs above 800m in all provinces of Panama. It is less common in Cocte, Panamá and Bocas del Toro. There are several occurrences in protected areas. Elsewhere populations come under pressure from increasing habitat encroachment.  
**Assessor:** Mitre, M.  
**Refs:** 3913, 7980, 15037, 16772

**Graffenrieda caudata**  
Melastomataceae  
Guyana  
A tree known only from the type collection, gathered in rainforest on the Pakaraima Mountains.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9867

**Graffenrieda grandifolia**  
Melastomataceae  
Colombia  
An endemic to Antioquia.  
**Assessor:** Calderon, E.  
**Refs:** 19069

**Graffenrieda robusta**  
Melastomataceae  
Peru  
This species is known only from forest between 1500 and 2000m in the department of Huánuco region.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Graffenrieda trichanthera**  
Melastomataceae  
Peru  
Known only from the type collection, the species occurs in lowland rainforest in the department of Loreto.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Graptoiphyllum repandum**  
Acanthaceae  
Fiji  
Apparently this shrub or small tree is endemic to Fiji, where it is known from dense forest in rocky places up to 1130m on the two largest islands and Ovalau.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18818

**Greenwayodendron suaveolens** ssp. *usambaricum*  
Annnonaceae  
Tanzania  
A distinct form of a tropical African taxon, this subspecies occurs rarely within a 100m altitudinal belt of moist montane forest on the East Usambara Mountains. Although forest loss and disturbance have been severe and the surrounding area is densely populated, an active conservation programme is now in place.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 5204, 9302

**Grewia alabrensis**  
Tiliaceae  
Seychelles (Aldabra)  
A small slender tree with an occasional distribution in mixed scrub. It is endemic to the Aldabras, where it occurs only on Malabar, the east of Grand Terre and Michel Island. The islands are protected within a Strict Nature Reserve and are uninhabited.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19027

**Grewia bilocularis**  
Tiliaceae  
Yemen (Soocotra)  
Populations appear to be very scattered and scarce, but under no current threat.  
**Assessor:** Miller, A.G.  
**Refs:** 2354, 19083

**Grewia goetzeana**  
Tiliaceae  
Tanzania  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814

**Grewia limae**  
Tiliaceae  
Mozambique  
**Assessor:** Bandeira, S.  
**Refs:** 5117, 18965

**Grewia salicifolia**  
Tiliaceae  
Seychelles (Aldabra)  
An occasional constituent of mixed scrub found only on Malabar, the west of Picard, the east of Grand Terre in the Aldabras and Menai on Cosmoledo. The Aldabran Islands are protected within a Strict Nature Reserve and only Picard is inhabited with a research station.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19027

**Grewia transzambesica**  
Tiliaceae  
Mozambique  
**Assessor:** Bandeira, S.  
**Refs:** 5117, 18965

**Grewia turbinata**  
Tiliaceae  
Yemen (Soocotra)  
Populations appear to be very scattered and scarce, but under no current threat.  
**Assessor:** Miller, A.G.  
**Refs:** 2354, 19083

**Grewia flanaganii**  
Greyiaceae  
South Africa (Eastern Cape)  
A shrub or small tree which grows on rocky, grassy hillsides in only a few restricted localities, all on private land. No information is available on the size of the populations or degree of threat. The roots are reportedly used for traditional medicinal and magical purposes.  
**Assessor:** Hilton-Taylor, C. et al.  
**Refs:** 689, 17410, 19218
**Grias colombiana**  
Lecythidaceae  
VU B1+2c, D2  
Colombia  
A small of lowland non-flooded forest, known only from three collections from the Pacific coast.  
Assessor: World Conservation Monitoring Centre  
Refs: 3791, 7980

**Grias haughtii**  
Lecythidaceae  
VU B1+2c  
Colombia  
A Colombian endemic, collected relatively few times from non-flooded lowland forest in Antioquia, Caldas and Santander.  
Assessor: Calderon, E.  
Refs: 3791, 7980, 19069

**Grias multivaria**  
Lecythidaceae  
VU B1+2c  
Colombia, Ecuador  
Known only from two collections, the species occurs in Cauc in coastal Colombia and in Los Ríos in coastal Ecuador.  
Assessor: World Conservation Monitoring Centre  
Refs: 3791, 7980

**Grimmeodendron jamaiicense**  
Euphorbiaceae  
VU B1+2c  
Jamaica  
Local and uncommon, this Cockpit Country endemic is distributed in forest on craggy limestone in St Elizabeth and Trelawny.  
Assessor: World Conservation Monitoring Centre  
Refs: 5653, 7980

**Grisollea thomassetii**  
Icacinaceae  
VU D2  
Seychelles  
A tree endemic to the Seychelles, which was reported in 1910 to be locally common on Mahé and Silhouette. The population on Mahé is now reduced to a single tree on Mount Simpson, having declined through forest clearance at medium altitudes and degradation at higher altitudes. The species remains relatively common on Silhouette and is present in forest areas protected by the Nature Protection Trust of Seychelles.  
Assessor: Nature Protection Trust of Seychelles  
Refs: 16212, 17229, 19025

**Grossera elongata**  
Euphorbiaceae  
VU D1+2  
São Tomé & Príncipe (Príncipe)  
This tree is known from a site above Neves Ferreira. More detailed information is lacking. There have been no recent botanical surveys of the island.  
Assessor: World Conservation Monitoring Centre  
Refs: 2724

**Grosecelia rimbachii**  
Compositae  
VU B1+2c  
Ecuador  
A species which is endemic to the High Andes of Ecuador.  
Assessor: World Conservation Monitoring Centre  
Refs: 19119, 19120

**Guaiacum coulteri**  
Zygophyllaceae  
Mexico (Jalisco)  
Assessor: Ramirez-Marcial, N. & M. González-Espinosa  
Refs: 81, 7588, 19203

**Guaiacum officinale**  
Zygophyllaceae  
EN C2a  
Anguilla, Antigua and Barbuda, Bahamas, Barbados, Colombia, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe (Guadeloupe, St Martin-St Barthelemy), Haiti, Jamaica, Martinique,Montserrat, Netherlands Antilles, Puerto Rico, St Vincent, Turks and Caicos Islands, Venezuela, Virgin Islands, US  
A slow-growing species of lowland dry forest, woodland and thicket, frequently growing in coastal areas. The timber and medicinal resin have been traded for several centuries as lignum-vitae and overexploitation has taken place throughout the species' range. Populations are now severely reduced in the Lesser Antilles, Puerto Rico, Barbados, Virgin Islands and Colombia and extinct or almost extinct in Antigua, Anguilla and Barbuda. Regeneration is good but growth is very slow. The species is listed in Appendix II of CITES.  
Assessor: Americas Regional Workshop  
Refs: 4082, 6602, 7630, 14301, 16327, 16987, 17678, 19069, 19179

**Guaiacum sanctum**  
Zygophyllaceae  
EN C2a  
Bahamas, Belize, Costa Rica, Cuba, Dominican Republic, El Salvador (ex), Guatemala, Haiti, Honduras, Mexico (Quintana Roo), Nicaragua, Panama, Puerto Rico, USA (Florida)  
A less valuable but rarely distinguished source of lignum-vitae than *G. officinale*. Occurring in lowland dry forest, the species is now extinct or extremely rare on most of the Caribbean islands. In Central America and Florida remaining populations are confined to restricted areas and continue to be threatened with habitat loss or exploitation, e.g. in Guanacaste in Costa Rica, El Salvador, Florida Keys. As with *G. officinale*, both the timber and medicinal resin are of commercial use and have been traded for several centuries. Regeneration is good but growth is very slow. The species is listed in Appendix II of CITES.  
Assessor: Americas Regional Workshop  
Refs: 197, 4147, 4974, 9254, 10197, 14717, 15037, 16327, 19179

**Guapira ratundifolia**  
Nyctaginaceae  
LR/nt  
Jamaica  
Assessor: World Conservation Monitoring Centre  
Refs: 7980

**Guarea carapoides**  
Meliaceae  
VU D2  
Peru  
Apparently known only from the type collection, the species is confined to the Peruvian Amazon at the mouth of Rio Santiago.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 12281
**Guarea cartaguenya**
Meliaceae VU B1+2c
Colombia, Ecuador
This species is known from few collections, gathered from rainforest flanking the base of the Pacific slopes of the Andes, occurring at the type locality in Valle, Colombia, and in Los Ríos, Ecuador.
Assessor: Calderon, E.
Refs: 7980, 12281, 19069

**Guarea casimiriensis**
Meliaceae VU D2
Peru
Apparently known only from the type collection, this small tree is confined to the Peruvian Amazon at Yurimaguas in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12281

**Guarea caulobotrys**
Meliaceae VU B1+2c
Colombia
Endemic to Colombia, the species is known only from a few collections from the department of Valle on the Pacific coast, probably occurring in rainforest.
Assessor: Calderon, E.
Refs: 7980, 12281, 19069

**Guarea cedrata**
Meliaceae VU A1c
Cameroon, Congo, Côte d’Ivoire, Democratic Republic of Congo, Ghana, Liberia, Nigeria, Sierra Leone, Uganda
A timber species found in some abundance in moist semi-deciduous forest and in the drier undisturbed areas of moist evergreen forest. Levels of exploitation are moderate and the species often suffers from its similarity to *Entandrophragma angolense*, resulting in it being harvested with the same intensity. Regeneration is more successful in undisturbed areas where there has been no burning.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 6126, 12061, 13250, 14667, 16021, 17408

**Guarea convergens**
Meliaceae VU D2
Brazil (Amazonas)
This species is known only from non-flooded forest in central Amazonia.
Assessor: Pires O’Brien, J.
Refs: 5942, 7980, 12281

**Guarea corrugata**
Meliaceae EN B1+2c
Colombia
A poorly known species, occurring in Valle, recorded only from the type locality.
Assessor: Calderon, E.
Refs: 7980, 12281, 19069

**Guarea crispa**
Meliaceae EN D1
Brazil (Amazonas)
Confined to non-flooded forest in central Amazonia, the species is known from rare collections on the Manaus–Porto Velho road.
Assessor: Pires O’Brien, J.
Refs: 5942, 7980, 12281

**Guarea cristata**
Meliaceae VU B1+2c
Brazil (Amazonas), Peru
A species which is confined to forested areas from the Javari River area between Brazil and Peru.
Assessor: Pires O’Brien, J.
Refs: 5942, 7980, 12281

**Guarea guentheri**
Meliaceae VU B1+2c
Brazil (Amazonas), Peru
A species of western Amazonia, occurring in non-flooded forest from sea level to 600m.
Assessor: Pires O’Brien, J.
Refs: 5942, 7980, 12281

**Guarea humaitensis**
Meliaceae VU B1+2c
Brazil (Amazonas)
The species is confined to non-flooded forest in southwest Amazonia.
Assessor: Pires O’Brien, J.
Refs: 5942, 7980, 12281

**Guarea jamaicensis**
Meliaceae VU B1+2c
Jamaica
Known only from disjunct limestone localities in St Andrew and St James, the species is uncommon and, particularly in St Andrew, has experienced almost complete destruction or degradation of its habitat.
Assessor: Bellingham, P.
Refs: 401, 5653, 7980, 19116

**Guarea juglandiformis**
Meliaceae VU B1+2c
Brazil (Acre), Peru
Occurring in non-flooded forest, the species appears to be restricted to the extreme western part of Amazonia.
Assessor: Pires O’Brien, J.
Refs: 1984, 5942, 7980, 12281

**Guarea macropetala**
Meliaceae VU A2c
Panama
This scarce species has been collected throughout Panama, but only in areas of undisturbed forest of low to medium elevation. There are occurrences within protected areas, but elsewhere the habitat is under severe pressures. A site on the El Llano–Carri highway to the north-east of Panamá city is under threat of deforestation.
Assessor: Mitré, M.
Refs: 7980, 15037, 16772

**Guarea macrophylla ssp. macrophylla**
Meliaceae VU B1+2c
Antigua and Barbuda, Dominica, Grenada, Guadeloupe, Martinique, Montserrat, St Vincent, Virgin Islands (US)
Only known with certainty from the Lesser Antilles, the species occurs in remaining areas of lowland rainforest, often at riversides. The other subspecies are widespread in the Amazon.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12281
Guarea mayambensis
Meliaceae
Democratic Republic of Congo, Gabon, Uganda
A tree of mid-altitude rainforest. In Uganda it occurs in Ishasha Gorge and Kayonza forest in Bwindi Impenetrable National Park. There are reports that regeneration is poor because seed dispersal agents are lacking. There is no information on populations elsewhere. If it is assumed that the species occurs in Mayombe, populations there are under heavy pressure from logging and overcutting for charcoal.
Assessor: *MUIENR
Refs: 1308, 9605, 10961, 16021

Guarea polymera
Meliaceae
Colombia, Ecuador
A tree of Pacific coastal forest, known from only a few collections taken from the department of Valle in Colombia and Esmeraldas in Ecuador.
Ref: 7980, 12281, 19069

Guarea pyriformis
Meliaceae
Brazil (Amazonas)
A medium-sized tree of lowland evergreen rainforest, confined to the Golfo Dulce area of south-eastern Pacific Costa Rica. The few collections made so far have all come from streamsides or river banks.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12281

Guarea sphenophylla
Meliaceae
Dominican Republic, Haiti
A shrub or small tree of forested limestone hills, collected from the Massif de la Hotte in Haiti and near Rincón in Dominican Republic.
Assessor: World Conservation Monitoring Centre
Refs: 197, 7980, 12281

Guarea sprucei
Meliaceae
Brazil (Amazonas)
This species is known only from the type collection in the Rio Negro basin.
Assessor: Pires O'Brien, J.
Refs: 5942, 7980, 12281

Guarea thompsonii
Meliaceae
Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Liberia, Nigeria
Although moderately exploited, this species is less commercially important than G. cedraea. It occurs commonly in hilly moist evergreen forest. Growth is slow, reaching only 9ft. DBH in 200 years.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 6128, 6718, 12061, 13250, 17408

Guarea trunciflora
Meliaceae
Brazil (Amazonas, Pará), Peru
Despite its wide distribution in Amazonian Peru, Brazil, and the border area between Brazil and Guyana, this tree is scattered in non-flooded forest and has been collected rarely.
Assessor: Pires O'Brien, J.
Refs: 5942, 7980, 12281

Guarea velutina
Meliaceae
Brazil (Amazonas, Pará, Roraima)
A species occurring in the middle and upper Rio Negro and adjacent Roraima territory. It has also been collected once south of the Amazon in Pará.
Assessor: Pires O'Brien, J.
Refs: 5942, 7980, 12281

Guarea venenata
Meliaceae
Brazil (Amazonas), Colombia
This understory species, although locally abundant in places, is confined to western and south-western Amazonia.
Assessor: Pires O'Brien, J.
Refs: 5942, 7980, 12281

Guatteria altiliaea var. angustifolia
Annonaceae
Peru
A variety known only from the type collected from the department of San Martin.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria anomala
Annonaceae
El Salvador, Guatemala, Mexico (Campeche, Chiapas, Tabasco, Veracruz)
A timber tree and dominant component of lowland seasonal rainforest. In Mexico, populations are restricted to the Gulf Region, occurring commonly in remaining rainforest in the Lacandon region, and the Uxpanapa-Chimalapa region. Rates of deforestation have been very high in all parts of the range.
Assessor: World Conservation Monitoring Centre
Refs: 4562, 4974, 5651, 7588, 19161

Guatteria atabapensis
Annonaceae
Venezuela
A treelet which occurs in shrub islands in white-sand savanna in a number of localities in Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Guatteria augusti
Annonaceae
Peru
A species of submontane forest, known only from the type collection from the department of La Libertad.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria calliantha
Annonaceae
Peru
This species is known only from the type collection from the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984
Guatteria diospyroides ssp. hondurensis
Annonaceae
Honduras
Assessor: Nelson, C.
Refs: 13995

Guatteria dura
Annonaceae
Venezuela
This species occurs along smaller rivers and creeks, probably in seasonally flooded sites, ranging from central to south-western Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Guatteria eriopoda
Annonaceae
Peru
A species known only from the type collection from the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria excelsa
Annonaceae
Peru
This species is known only from the type collection from the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria ferruginea
Annonaceae
Suriname
A species of no recorded locality, endemic to Suriname.
Assessor: World Conservation Monitoring Centre
Refs: 19196

Guatteria geminiflora
Annonaceae
Peru
This species is known only from the type collection from the department of Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria glauca
Annonaceae
Peru
This species is known only from the type collection from the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria guentheri
Annonaceae
Peru
Known only from the type collection, the species occurs in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria insignis
Annonaceae
Suriname
A species of no recorded locality, endemic to Suriname.
Assessor: World Conservation Monitoring Centre
Refs: 19196

Guatteria jefensis
Annonaceae
Panama
Only small populations are known, confined to areas of lowland rainforest in Cerro Jefe. Several are contained within Chagres National Park, but those elsewhere are increasingly threatened by encroaching agriculture, settlements and industrial developments.
Assessor: Mitré, M.
Refs: 7980, 12226, 16772

Guatteria juninensis
Annonaceae
Peru
This species is known only from the type collection from the department of Junín.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria liesneri
Annonaceae
Venezuela
A tree of riverine forests, with occurrences in Serranía de los Pijiguaos in Bolívar and in western Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Guatteria modesta
Annonaceae
Peru
This species is known only from the type collection from the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Guatteria panamensis
Annonaceae
Panama
Occurring in lowland evergreen forest, the species is known from a few populations in the provinces of Los Santos and Bocas del Toro. There may be other occurrences, possibly in Costa Rica. No specific protection or conservation measures are in place and the habitat is susceptible to logging and clearing in many areas.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Guatteria stenopetala
Annonaceae
Venezuela
Endemic to the Sierra de la Neblina in Amazonas, the species occurs within a restricted altitudinal range in lower montane Clusia forest. The area is protected but has suffered from fires and illegal mining.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Guatteria tonduzii
Annonaceae
Colombia, Costa Rica, Panama
Ranging from Costa Rica to Colombia, the species is relatively widespread in areas of evergreen rainforest up to 1500m. Populations in Panama are reported to be healthy; certain areas are threatened with logging, while others are protected within national parks. In Costa Rica
the species is common at medium elevations. In Colombia the species distribution appears to be concentrated in the Chocó, especially the Urabá area.

**Guettarda williamsii**

Annonaceae

Venezuela

A tree of non-flooded evergreen forest, occurring along Rio Casiquiare in Amazonas.

**Guatteria ramiflora**

Annonaceae

Peru

This species is known only from the type collection from lowland Amazon rainforest in the department of San Martin.

**Guettarda comata**

Rubiaceae

Peru

Known only from the type collection, the species occurs in lowland Amazon rainforest in the department of Loreto. There is uncertainty over its taxonomic status, as it may be conspecific with *G. comosa* or *G. sericea*.

**Guettarda frangulifolia**

Rubiaceae

Jamaica

This species is likely to be a minor variant of *G. argentea*. It is uncommon and local in its distribution, apparently confined to St Catherine, Hanover and Trelawny.

**Guettarda longiflora**

Rubiaceae

Jamaica

There is little information about this species and no recent collection material. It is, apparently, confined to St Ann and St Thomas Parishes and is evidently very uncommon. Almost all forested areas below 1400m in the latter parish have been destroyed or severely degraded.

**Guettarda noumeana**

Rubiaceae

New Caledonia

A species confined to a restricted area of sclerophyllous forest in the region of Nouméa. Fires, grazing and encroaching agriculture are continual problems and have caused a severe reduction in the habitat.

**Guettarda ochreata**

Rubiaceae

Peru

This species is relatively widespread but confined to the Peruvian Andes up to 2500m.

**Guettarda retusa**

Rubiaceae

Cuba

An endemic tree discovered in the mid 19th century in Loma Peleta, Los Palacios, Pinar del Rio Province. Thorough searches for the species over the past 25 years have been unable to locate it. Its habitat has been severely degraded by cutting and clearing.

**Guibourtia ehie**

Leguminosae

Cameroon, Côte d’Ivoire, Gabon, Ghana, Liberia, Nigeria

A West African timber which occurs in moderate densities in different forest types, from closed rainforest to drier semi-deciduous forest. Exploitation rates of the wood are high and causing population declines. The timber acts as a popular substitute for rosewood.

**Guibourtia schliebenii**

Leguminosae

Mozambique, Tanzania

A dry coastal forest species ranging from south-east Tanzania into little-known areas of Mozambique.

**Guibourtia sousae**

Leguminosae

Mozambique

No information is available on the location and habitat of this species.

**Guioa acuminata**

Sapindaceae

Philippines

A small tree found in secondary forest on Luzon and Polillo. It is known only from five collections.

**Guioa asquamosa**

Sapindaceae

Indonesia (Lesser Sunda Is.)

Restricted to Timor and Flores, this small tree is known only from six collections.

**Guioa bicolor**

Sapindaceae

Philippines

This species is only known from a total of seven collections from Luzon, Mindanao and Sabtang. It has been recorded in logged-over forest.

**Guioa ochreata**

Sapindaceae

Peru

This species is relatively widespread but confined to the
Guioua discolor
Sapindaceae
Philippines
Known only from four herbarium specimens, this small tree is confined to the primary dipterocarp forests of Luzon and Samar.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua grandifoliola
Sapindaceae
Papua New Guinea
An extremely localised species known only from four collections from lowland rainforest and advanced secondary forest near the Buso River. Large areas of lowland forest in Papua New Guinea are threatened by increased logging activity.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua hospita
Sapindaceae
Papua New Guinea
The only record of this species is the type specimen collected in 1890 in Gulf Province. Despite the area being relatively well studied, it has not been recorded since.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua maluikimensis
Sapindaceae
Indonesia (Moluccas)
A tree known from two collections, both from Morotai Island.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua melanopoda
Sapindaceae
Indonesia (Irian Jaya)
A very localised tree, collected twice in the 1940s, found in rainforest on river banks in Jayapura.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua molluiscula
Sapindaceae
Papua New Guinea
To date there are just two collections from the 1950–60s of this understorey tree of alluvial swamp. The area is not under threat but it is not well visited by botanists.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua multitjuga
Sapindaceae
Indonesia (Irian Jaya)
Known only from two collections from the early 1900s, this small tree is found in the rainforest/savanna transition zone on steep ground and in old secondary forest.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua myriadenia
Sapindaceae
Philippines
Endemic to Luzon, this forest species, known from 19 specimens, has not been collected since the 1940s.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua normantiens
Sapindaceae
Papua New Guinea
Confined to the Milne Bay Province on Normanby Island, this tree is known from only four collections to date.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua novobritannica
Sapindaceae
Papua New Guinea
A tree known only from the type specimen, collected in Casuarina rumphiana-dominated montane forest in west New Britain.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua oligotricha
Sapindaceae
Indonesia (Irian Jaya), Papua New Guinea
A small tree, known only from three collections, found in lowland secondary forest in the Southern Division of Irian Jaya and the Western Province of Papua New Guinea. These areas are underexplored.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua palawanica
Sapindaceae
Philippines
A small tree or shrub endemic to Palawan, where it has been collected only a few times in lowland forest on ultrabasic rock and in stunted montane rainforest.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua parvifoliola
Sapindaceae
Philippines
This species was found only once on the dry slopes of the Ilocos Norte Province of Luzon.
Assessor: van Welzen, P.C.
Refs: 18389

Guioua patentinitervis
Sapindaceae
Indonesia (Moluccas)
A small tree confined to the transitional area between coral sand beach and open forest on nickel-rich soils. It is known from a total of seven collections from the islands of Ambon, Buru, Ceram and Obi.
Assessor: van Welzen, P.C.
Refs: 18389
Guioa pauciflora
Sapindaceae VU D2
Indonesia (Irian Jaya), Papua New Guinea
A shrubby tree only known from three disjunct collections in an area which is underexplored.
Assessor: van Welzen, P.C.
Refs: 18389

Guioa plurinervis
Sapindaceae VU D2
Papua New Guinea
To date this species is known only from three collections from secondary hill rainforest in Milne Bay Province in Rossel Island. There has been little collecting from this island.
Assessor: van Welzen, P.C.
Refs: 18389

Guioa reticulata
Sapindaceae CR A1c
Philippines
A secondary forest tree confined to the dimishing forests of Luzon. It has not been collected since the 1960s–70s.
Assessor: van Welzen, P.C.
Refs: 18389

Guioa scalariformis
Sapindaceae VU D2
Papua New Guinea
A shrub or small tree restricted to primary montane forest of Morobe Province. It has been collected only twice.
Assessor: World Conservation Monitoring Centre
Refs: 18389, 19189

Guioa truncata
Sapindaceae EN A1c
Philippines
A tree of dense moist mossy forest found only on Mindanao Island. Collected only twice, it has not been recorded since the 1960s.
Assessor: van Welzen, P.C.
Refs: 18389

Guioa unguiculata
Sapindaceae VU D2
Papua New Guinea
A small tree known only from four collections.
Assessor: World Conservation Monitoring Centre
Refs: 18389, 19189

Guioa venusta
Sapindaceae VU D2
Indonesia (Irian Jaya)
Restricted to secondary scrubby vegetation on Schouten and Japen Islands, this small tree has been collected three times, most recently in 1945.
Assessor: van Welzen, P.C.
Refs: 18389

Guioa waigeoensis
Sapindaceae VU D2
Indonesia (Irian Jaya)
Known only from the type specimen, this small tree is endemic to Waigeo Island, which is an undercollected area.
Assessor: van Welzen, P.C.
Refs: 18389

Guioa hambronii
Sapindaceae DD
Palmæ
Solomon Islands (South Solomon)
Endemic to the Solomon Islands, this palm tree is scattered in broadleaved, swamp and cloud forest on ultrabasic soils from 100 to 1500m.
Assessor: Dowl, J.L.
Refs: 19118

Guioa microcarpa
Sapindaceae VU A1c
Fiji
A scarce species of steep forested slopes, occurring between 180 and 260m, only on the islands of Viti Levu and Vanua Levu. Some areas have been lost to agriculture and logging.
Assessor: Fuller, D.
Refs: 6053, 19118

Gustavia acuminata
Lecythidaceae VU D2
Brazil (Roraima), Venezuela
This species appears to be restricted to non-flooded forest between 1250 and 1300m in Amazonian Brazil and adjacent parts of Venezuela.
Assessor: Pires O'Brien, J.
Refs: 1503, 7980, 9632

Gustavia dodonii
Lecythidaceae VU B1+2c
Ecuador
Known only from north-west Ecuador, this middle-storey tree has been collected about five times from areas of lowland non-flooded forest. It is apparently uncommon. The high tensile strength of the trunk has resulted in the species being popular for local use as a lever to lift heavy objects.
Assessor: World Conservation Monitoring Centre
Refs: 1503, 7980, 9632

Gustavia erythrocarpa
Lecythidaceae VU D2
Brazil (Pará)
An understorey tree, locally common but confined to the vicinity of the type locality in non-flooded forest in the Tapajós River region.
Assessor: Pires O'Brien, J.
Refs: 1503, 7980, 9632

Gustavia excelsa
Lecythidaceae EN B1+2c
Colombia
An endemic to the Magdalena Valley in Santander. Although it is a relatively common understorey tree in lowland non-flooded forest, it remains poorly known and rarely collected.
Assessor: Calderon, E.
Refs: 1503, 3791, 4460, 7980, 19069

Gustavia foliosa
Lecythidaceae VU B1+2c
Colombia, Ecuador
Occurring on the Pacific coast, the species has been collected twice from areas of lowland non-flooded forest in Valle in Colombia and Esmeraldas in Ecuador.
Assessor: World Conservation Monitoring Centre
Refs: 1503, 3791, 7980

Species Summaries

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**Gustavia fosteri**

Lecythidaceae  
Panama

Occurring in semi-deciduous rainforest on seasonally flooded plains, the species is restricted to Barro Colorado Island (BCI) and the surrounding area. The populations are small but almost every one is contained within a protected area, including one in Soberana National Park. Only a population on the Gigante Peninsula at the south of BCI is under serious pressure because of the expanding human population.

**Assessor:** Mitré, M.  
**Refs:** 1503, 7980, 16772

**Gustavia gracillima**

Lecythidaceae  
Colombia

A small slender tree with an unconfirmed distribution in lowland non-flooded rainforest in western Colombia, possibly occurring also in Antioquia, Chocó or Nariño. It has been collected about four times. Cultivated specimens are found in Rio de Janeiro Botanic Garden, Singapore Botanical Garden and in Chelsea, UK.

**Assessor:** Calderon, E.  
**Refs:** 1503, 3791, 7980, 19069

**Gustavia latifolia**

Lecythidaceae  
Colombia

Now possibly extinct, the species is known only from the type specimen, which was collected from Cundinamarca.

**Assessor:** Calderon, E.  
**Refs:** 1503, 3791, 7980, 19069

**Gustavia longepetiolata**

Lecythidaceae  
Brazil (Pará)

A very small tree, known only from the type locality in non-flooded lowland rainforest in the Rio Cuminá-Mirim region.

**Assessor:** Pires O’Brien, J.  
**Refs:** 1503, 3791, 7980

**Gustavia longifuniculata**

Lecythidaceae  
Colombia

A poorly known species, recorded from approximately seven collections from lowland non-flooded rainforest in Santander.

**Assessor:** Calderon, E.  
**Refs:** 1503, 3791, 7980, 19069

**Gustavia monocaulis**

Lecythidaceae  
Colombia, Panama

In Panama, the species is known from forest along the highway running from El Llano to Carti-Tupile in Kunayala Indigenous Reserve. It is easily confused with *G. grandibracteata*, which may explain why there have been no recent collections in this region. The forest is rapidly disappearing and being colonised by campesinos. The species has also been identified from recent collections in Antioquia in Colombia, and in Darién in Panama.

**Assessor:** Mitré, M.  
**Refs:** 1503, 7980, 16772

**Gustavia nana ssp. nana**

Lecythidaceae  
Colombia, Panama

A subspecies which is known in Panama solely from a collection from Darién made in 1962. Similar collections in the area have been identified as ssp. *rhodantha*. In Colombia there is a collection of the subspecies from the Chocó but no further information is available.

**Assessor:** Mitré, M.  
**Refs:** 7980, 16772

**Gustavia nana ssp. rhodantha**

Lecythidaceae  
Colombia, Panama

This subspecies is recorded from low to medium elevation rainforest, often along stream sides, occurring largely in Colombia and extending into Darién and the Kunayala Indigenous Reserve in Panama. The greater part of the range is in protected areas and the taxon is reported to relatively common and regenerating well in places.

**Assessor:** Mitré, M.  
**Refs:** 7980, 16772

**Gustavia petiolata**

Lecythidaceae  
Colombia

In Colombia, the species is recorded from the type locality in lowland non-flooded rainforest in the Chocó.

**Assessor:** Calderon, E.  
**Refs:** 1503, 3791, 7980, 19069

**Gustavia pubescens**

Lecythidaceae  
Colombia, Ecuador

A rarely collected species of lowland non-flooded rainforest, confined to Pacific coastal Colombia and Ecuador.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1503, 3791, 7980

**Gustavia santanderiensis**

Lecythidaceae  
Brazil (Amazonas), Colombia

Occurring in areas of non-flooded forest, the species is distributed disjunctly with occurrences in the Magdalena Valley in Córdoba, Cundinamarca, Santander and Vaupés Departments in Colombia and in north-west Amazonia in Brazil.

**Assessor:** Calderon, E.  
**Refs:** 1503, 5942, 7980, 19069

**Gustavia serrata**

Lecythidaceae  
Ecuador

Known only from the type locality, the species occurs in lowland non-flooded rainforest on the road from Chone to Pichincha in Manabi. The area is contained within Pedro Franco Davila Biological Station.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1503, 3791, 7980

**Gustavia sessilis**

Lecythidaceae  
Colombia

Presently known only from the type collection, the species is confined to dense forest in Chocó.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1503, 3791, 7980
**Gustavia speciosa** ssp. *occidentalis*
Lechitidaceae  VU B1+2c
Colombia
A large tree, confined to the type locality on the Pacific slopes of Valle.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1503, 3791, 7980, 8869

**Gustavia verticillata**
Lechitidaceae  VU B1+2c
Colombia, Panama
The species has been collected relatively rarely from localities of lowland non-flooded rainforest in Cundinamarca and Tolima in Colombia and parts of neighbouring Panama in Darién Province.
**Assessor:** Calderon, E.
**Refs:** 1503, 3791, 7980, 19069

**Gyminda orbicularis**
Celastraceae  VU B1+2c
Cuba
A shrub which sometimes attains the size of a small tree up to 5m tall. It is very restricted in the dry shrubwoods and shrublands on limestone terraces near the coast between Cajobabo and Jauco in Guantánamo Province.
**Assessor:** Areces-Mallea, A.E.
**Refs:** 11403, 18485, 19149

**Gymnacranthera canarica**
Myristicaceae  VU B1+2c, D2
India (Karnataka, Kerala)
A large tree found in the lowland moist dense forests of Kerala, just extending into South Kanara in Karnataka. Collected from widely scattered locations in the 19th century, the species had not been collected for almost a century and was suspected of being extinct until recently. Remaining populations appear to be extremely rare and restricted. Further detailed information may indicate that a more serious threat category is appropriate. The seeds have been mistaken for nutmeg.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 8295, 12114, 19144

**Gymnacranthera maliensis**
Myristicaceae  LR/nt
Indonesia (Sulawesi)
This tree is restricted to primary and degraded forest on ultrabasic soils in central Sulawesi, east of Malili. Sulawesi has the largest tract of forest on ultrabasic rock in the tropics. It is, at least relatively, secure from conversion to agriculture because of the ultramafic nature of the soil.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 4329, 8295

**Gymnospora bachmannii**
Celastraceae  VU A2c
South Africa (Eastern Cape, KwaZulu-Natal)
A shrub or rarely a small straggling tree, endemic to Pondoland in southern KwaZulu-Natal and the eastern Transkei area of the Eastern Cape. It occurs on sandstone outcrops on the rocky banks and beds of rivers and streams. It is present in most of the protected areas in the region and also many of the demarcated forest areas in the Transkei, which are ineffectively protected and under threat of losing their habitat through cutting for firewood and timber and increasing settlement. Agricultural activities upstream have also caused habitat loss through the siltation of rivers.
**Assessor:** Hilton-Taylor, C. *et al.*
**Refs:** 19218, 19220

**Gymnostemon zaizou**
Simaroubaceae  VU B1+2c
Côte d’Ivoire
A Côte d’Ivoire endemic, confined to remaining patches of forest between Cavally and Sassandra Rivers. The largest and most stable forest is contained within Tai National Park. Logging and the influx of people have caused the rapid decline and degradation of forests elsewhere.
**Assessor:** Assi, A.
**Refs:** 2773, 12822

**Gynoxys azuyensis**
Compositae  VU B1+2c
Ecuador
A tree species endemic to montane forest of the Ecuadorean High Andes.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Gynoxys chimborazensis**
Compositae  VU B1+2c
Ecuador
A species which is endemic to the High Andes of Ecuador.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Gynoxys colanensis**
Compositae  VU D2
Peru
Known only from the type collection, the species is found in *terra firme* forest above 2000m in the department of Amazonas.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Gynoxys cuicochensis**
Compositae  VU B1+2c
Ecuador
A tree or shrub species which is endemic to the High Andes of Ecuador.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Gynoxys dielsiana**
Compositae  VU B1+2c
Ecuador
A tree or shrub species which is endemic to the High Andes of Ecuador.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Gynoxys laurifolia**
Compositae  VU B1+2c
Ecuador
A tree species which is endemic to the High Andes of Ecuador.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

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Gynoxys rimbachii
Compositae  VU B1+2c
Ecuador
A tree or shrub species restricted to the montane or upper montane forest zones of the Ecuadorian High Andes.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Gyrantaera darieniensis
Bombacaceae  EN C2a
Panama
Originally known only from Kunayala Indigenous Reserve and Darién near the border with Colombia, the species has now been collected from Veraguas, in central Panama. Future collecting may reveal the species in between these areas. Populations are few and small and the habitat is frequently cleared for settlements, agriculture and ranching. There is a protected population within the Darién National Park. Only two species exist in the genus.
Assessor: Mitré, M.
Refs: 3156, 7272, 7980, 16772

Gyrotaenia microcarpa
Urticaceae  LR/nt
Jamaica
An occasional species of the eastern parishes, where it occurs in moist woodlands on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Gyrotaenia spicata
Urticaceae  LR/nt
Jamaica
Abundant where it occurs, the species is distributed in central and western parishes in areas of woodlands on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Halesia macgregorii
Styracaceae  VU A1cd
China (Fujian, Guangdong, Guangxi, Hunan, Jiangxi, Zhejiang)
A tree with a scattered occurrence in south-east China. It is found in remaining areas of mid-elevation broadleaved forest on slopes and valleys. Throughout its range the species has been exposed to severe rates of habitat clearance and logging.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Halsfordia papuana
Rutaceae  CR C2a
Papua New Guinea
This tree is scattered in submontane and montane rainforest between 1200 and 2700m, mostly confined to the Bulelo/Wau region in Morobe Province. The region has been heavily exploited, logged and converted into Araucaria plantations. It is not certain how many mature specimens remain but it is certainly less than 250.
Assessor: Eddowes, P.J.
Refs: 19114

Hallea ledermannii
Rubiacaceae  VU A1c
Angola, Benin, Cameroon, Congo, Côte d’Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Ghana, Liberia, Nigeria
A gregarious forest species restricted to swampy areas, rivers and also coastal regions. Regeneration is good in wet areas. It is able to reproduce vegetatively. Overexploitation of the general-purpose timber and habitat degradation in large parts of its range are causing population declines.
Assessor: African Regional Workshop
Refs: 2036, 6127, 7791, 8369, 12061, 15251, 17408

Hallea stipulosa
Rubiacaceae  VU A1cd
Angola, Cameroon, Central African Republic, Congo, Gabon, Ghana, Guinea, Nigeria, Senegal, Sierra Leone, Sudan, Uganda, Zambia
A widespread and important source of timber which occurs most commonly in swampy areas. In many places it suffers from overexploitation.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 6127, 8369, 12061, 15251, 16021, 17408

Halocarpus kirki
Podocarpaceae  VU A1a+2b
New Zealand (North Is.)
Only a few populations are known, occurring in areas of forest up to 700m between the North Cape and the Coromandel Peninsula. Few seedlings and juvenile plants are apparent and the species appears to be dependent on disturbance (e.g. volcanic disturbance) for regeneration. Most populations are within protected areas.
Assessor: SSC Conifer Specialist Group
Refs: 374, 8032, 13041, 19126

Hamelia papillosa
Rubiacaceae  VU B1+2c
Jamaica
A Cockpit Country endemic occurring in the west-central parishes on exposed craggy limestone cliffs and woodland margins.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 7980

Hampea breedlovei
Malvaceae  VU B1+2c
Mexico
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 4105, 6308

Hampea dukei
Malvaceae  DD
Panama
Known only from Kunayala Indigenous Reserve, the species has not been collected since the type collection was made in 1966. However, H. punctulata, a very similar species, has been collected in the surrounding area and other parts of Panama.
Assessor: Mitré, M.
Refs: 7980, 15037, 16772

Hampea irrcantha
Malvaceae  VU B1+2d
Panama
Recorded from the provinces of Colón and Panamá, the species occurs in rainforest to 1000m, mainly in the
central region of Panama and slightly to the east. The major part of the range is contained within protected areas, outside which the species occurs very rarely and is under severe threat from habitat clearance.

**Assessor:** Mitré, M.
**Refs:** 7980, 13315, 16772

**Haplocoelum trigonocarpum**

Sapindaceae

Kenya, Mozambique, Somalia, Tanzania

A rare species with disparate populations confined to pockets of forest, especially coastal forest. In Kenya it is confined to the Taita Hills. In neighbouring Tanzania the species is thought to be less rare than originally suspected. The population in Mozambique is very poorly known.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 3356, 6396, 12067, 18665

**Haplolobus beccarii**

Burseraceae

VU D2

Malaysia (Sarawak)

Endemic to Sarawak, this tree is known only from the type specimen collected in lowland forest on Mount Malvaceae Matang.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18327

**Haplolobus bintuluensis**

Burseraceae

VU D2

Malaysia (Sarawak)

Endemic to Sarawak, this small tree has only been collected once in a site of mixed dipterocarp forest in the Nyabau catchment area, Bintulu.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19017

**Haplolobus inaequifolius**

Burseraceae

VU D2

Malaysia (Sarawak)

Known only from the type collection, this tree was found in Sabal Forest Reserve in hill forest at an altitude of 360m.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19017

**Haplolobus kaptiensis**

Burseraceae

VU D2

Malaysia (Sarawak)

A rare emergent tree of lowland hill forest, so far known from only four collections, two from Kapit in Sarawak and two from Ranau in Sabah.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19017

**Haplolobus keenhoutsii**

Burseraceae

VU D2

Malaysia (Sarawak)

Known only by the type specimen, the species occurs in mixed dipterocarp forest at 500m in Ulu Balleh, Kapit.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19017

**Haplolobus sarawakanus**

Burseraceae

VU D2

Malaysia (Sarawak)

A small tree of mixed dipterocarp forest, known only from the type collected from Ulu Balleh of Kapit. Another collection from Sabah might also be identified as this species.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19017
Haplorhus peruviana
Anacardiaceae  DD
Chile (Tarapaca), Peru
Occurring as isolated individuals or in small groups, the species is found in dry hot ravines in lowland areas, ranging from south-east Peru to the Ariza Province of Chile.
Assessor: Gonzalez, M.
Refs: 4893, 7980, 12268, 16328

Haplorrhina monophylla
Leguminosae  VU A1+d2d
Cameroon, Côte d'Ivoire, Liberia, Nigeria, Sierra Leone
A lowland swamp forest species exploited for its timber. There is little information on the status of populations or their regeneration but it is expected that overexploitation and habitat degradation are resulting in population declines.
Assessor: African Regional Workshop
Refs: 2773, 6128, 12590

Harpa lancea masoniana
Leguminosae  VU D2
Cuba
A small tree reaching 5m in height, confined to a small area of arid evergreen shrubwoods and scrub on the Maisf coastal plain, at the easternmost end of Cuba.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Hebe barkeri
Scrophulariaceae  VU D2
New Zealand (Chatham Is.)
Once a significant component of forests in the Chatham Islands, this small tree is now reduced to four populations and scattered isolated individuals. The species is severely browsed by livestock and more recently by possums.
Assessor: de Lange, P.J.
Refs: 902, 5563, 17637, 19133, 19134

Heberdenia excelsa
Myrsinaceae  VU C1
Portugal (Madeira), Spain (Canary Is.)
An uncommon species of *Laurisilva and, at higher altitudes, cloud forest. Past exploitation of its habitat has resulted in the reduction and fragmentation of populations. *Laurisilva in Madeira is now said to be increasing in extent, although areas close to habitations are still under the threat of fire. The species occurs in protected areas and regional legislation.
Assessor: Bahares, A. et al.
Refs: 19022, 19131

Hederopsis maingayi
Araliaceae  VU B1+2a
Malaysia (Peninsular Malaysia)
A tree of lowland and hills up to 610m in the states of Pahang, Kelantan, Kedah, Perak and Selangor.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Hederopsis major
Araliaceae  VU D2
Malaysia (Peninsular Malaysia)
This rare species, known only from a single collection, is confined to rainforest in Kelantan.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Hedysosmum burgerianum
Chloranthaceae  EN B1+2cd
Panama
Current information suggests the species is confined to Cerro Colorado and Cerro Horqueta in the province of Chiriquí. The populations are large in places but confined to a narrow altitudinal range, between 1500 and 1900m. The area is unprotected and parts of Cerro Colorado, in particular, are affected by mining for copper and gold, and the impact of an expanding human population.
Assessor: Mitré, M.
Refs: 6724, 7980, 8999, 16772

Hedysosmum croceum
Chloranthaceae  EN B1+2bcd
Panama
A shrubby species which occurs in small populations up to 3000m in cloud forest only in the mountains in the west. Each collecting trip appears to uncover a new population in a more remote area. There is also a report of a population in La Amistad National Park on the border with Costa Rica. The habitat is generally declining in extent, over much of the range, mainly because of logging and mining for copper and gold.
Assessor: Mitré, M.
Refs: 6724, 7980, 8999, 16772

Hedysosmum mexicanum
Chloranthaceae  VU A1c
Guatemala, Mexico (Chiapas)
A scarce species of cloud forest or mesophyllous montane forest.
Assessor: World Conservation Monitoring Centre
Refs: 19161

Hedysosmum purpurascens
Chloranthaceae  VU B1+2c
Ecuador
An Ecuadorean endemic, currently known only from the High Andes in Loja Province. The altitudinal range of the species extends between 2300 and 2900m.
Assessor: World Conservation Monitoring Centre
Refs: 6724, 7980, 8999, 19119

Hedyscepe canterburyana
Palmaceae  VU D2
Australia (New South Wales - Lord Howe Is.)
Endemic to Lord Howe Island, this palm tree dominates palm forest on the slopes of Mount Glower and Mount Lidgbird. Lord Howe Island is a World Heritage Site, most of which is a permanent park reserve.
Assessor: Johnson, D.
Refs: 19118

Heinsenia diervillioides ssp. mufndiensis
Rubiaceae  VU B1+2b
Tanzania
A moist montane forest tree, occurring at elevations exceeding 1500m in three localities: Nyumbanitu, Lulanda and west Mufindi.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814
**Helicia acutifolia**
Proteaceae  
VU D2
Papua New Guinea
A small tree of secondary forest at 2040m, confined to
Mount Victoria in the central district.
Assessor: World Conservation Monitoring Centre
Refs: 7673, 19031

**Helicia albiflora**
Proteaceae  
LR/nt
Papua New Guinea
A tree often found in *Cassanopsis-Notofagus* rainforest
from 900 to 2000m. Known from the East and Western
Highlands, Morobe, Northern and Central Provinces of
Papua New Guinea. Its conservation is dependent upon
the conservation of its montane habitat. The attractive
wood has a decorative grain.
Assessor: Eddowes, P.J.
Refs: 7673, 19031, 19114

**Helicia amplifolia**
Proteaceae  
LR/nt
Papua New Guinea
A tree occurring in primary or secondary rainforest or
submontane forest from 600 to 1300m. It is known from
the Eastern, Western and Southern Highlands, Madang
and Morobe Provinces. The wood is very attractive.
Assessor: Eddowes, P.J.
Refs: 7673, 19031, 19114

**Helicia australasica**
Proteaceae  
VU C2b
Australia (Northern Territory), Papua New Guinea
A tree usually found in patches of rainforest along rivers
and streams. In Papua New Guinea, it is known only from
the Western Province. Its restricted occurrence renders it vulnerable. The status of this species in
Northern Australia has not been considered in this threat
category.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

**Helicia calocoma**
Proteaceae  
VU B1+2c
Papua New Guinea
Confined to the Morobe District, this tree is restricted to
a small area of *Notofagus*-dominated forest on ridges
up to 1800m. The wood is considered attractive and has a
decorative grain.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

**Helicia grandifolia**
Proteaceae  
VU D2
Viet Nam
Apparently endemic to Viet Nam, this small to medium-
sized tree is known only from Ba Vi, a number of
localities in Hoa Binh and Cuc Phuong in Ninh Binh.
Assessor: World Conservation Monitoring Centre
Refs: 848, 15357

**Helicia insularis**
Proteaceae  
EN B1+2abcde
Papua New Guinea
A small tree found in mossy forest on ridge crests at 800
to 950m on Normanby and Fergusson Islands of the
D’Entrecasteaux Group.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

**Helicia latifolia**
Proteaceae  
LR/nt
Papua New Guinea (Bismarck Archipelago, Papua New
Guinea)
A tree scattered on slopes and ridges in primary and
secondary rainforest up to 800m in the Gulf, Central,
Milne Bay and Northern Provinces of Papua New
Guinea and New Britain of the Bismarck Archipelago.
This species has attractive wood.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

**Helicia neglecta**
Proteaceae  
VU A1cd, C2a
Papua New Guinea (Bismarck Archipelago)
A tree of primary and secondary forest up to 400m,
which occurs only on New Britain and New Ireland in
the Bismarck Archipelago. It is potentially threatened by
ongoing and future logging activities and encroaching
agriculture.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

**Helicia peekelli**
Proteaceae  
VU D2
Papua New Guinea (Bismarck Archipelago)
This lowland tree is known only from Namatanai, New
Ireland, where it is thought to occur in coastal forest.
Assessor: World Conservation Monitoring Centre
Refs: 19031

**Helicia peltata**
Proteaceae  
CR B1+2abcde
Papua New Guinea
Known only from a single location, Bisiatatu in the
Central Province, this tree occurs in forest at 450m. The
habitat is threatened by logging and the increasing
settlement.
Assessor: Eddowes, P.J.
Refs: 7673, 19031, 19114

**Helicia polyosmoides**
Proteaceae  
CR B1+2abcde
Papua New Guinea (Bismarck Archipelago)
This small tree, restricted to Manus Island in the
Bismarck Archipelago, occurs in ridge forest between
the elevations of 100 and 550m. This species may face
extinction through the commercial logging of its habitat.
Assessor: Eddowes, P.J.
Refs: 19031, 19114

**Helicia retusa**
Proteaceae  
VU D2
Papua New Guinea
Occurring in ridge forest between 1600 and 1900m, this
small tree found is known only from Milne Bay District.
Assessor: World Conservation Monitoring Centre
Refs: 19031

**Helicia rostrata**
Proteaceae  
VU D2
Papua New Guinea
A small tree, so far known only from lower montane
forest on Mount Dayman, occurring between 2000 and
2200m.
Assessor: World Conservation Monitoring Centre
Refs: 19031
**Helicia shweliensis**
Proteaceae  
EN B1+2c  
China (Yunnan)
Confined to south-west and west Yunnan, the species occurs in areas of monsoon forest between 1800 and 2150m. The extensive loss of habitat caused by logging and conversion to agriculture has incurred losses in population numbers and brought the species into serious risk of extinction.
Assessor: Sun, W.  
Refs: 1818, 11847

**Helicia subcordata**
Proteaceae  
CR B1+2abede  
Papua New Guinea
A tall tree found only once in mid-montane open forest at 1350m near Wagag in the Morobe Province.
Assessor: Eddowes, P.J.  
Refs: 19031, 19114

**Heliciopsis cockburnii**
Proteaceae  
VU B1+2c  
Malaysia (Peninsular Malaysia)
A rare tree scattered in lowland and hill forest. So far it is known only from Keledang Saiong Forest Reserve in Perak, and Gunung Tapis in Pahang.
Assessor: Chung, R.C.K.  
Refs: 19073

**Heliciopsis lanceolata**
Proteaceae  
EN B1+2c  
Indonesia (Kalimantan), Malaysia (Sarawak)
A species distributed in remnant hill forests in the vicinity of Bogor. It is unknown how much of the original population remains but the extent of habitat clearance and cutting has been extremely high.
Assessor: World Conservation Monitoring Centre  
Refs: 1766, 15417

**Heliciopsis montana**
Proteaceae  
LR/cd  
Malaysia (Peninsular Malaysia)
A montane forest tree confined to Gunung Korb, the Cameron Highlands and Fraser's Hill. This region is threatened by the expansion of human habitation and tourism.
Assessor: Chung, R.C.K.  
Refs: 19073

**Heliciopsis rufidula**
Proteaceae  
VU B1+2c  
Malaysia (Peninsular Malaysia, Sarawak)
A species of seasonal lowland and montane forest known only from Perak, Selangor, Trengganu and Pahang in Peninsular Malaysia. A single collection has been made from mixed dipterocarp forest near Belaga, Sarawak.
Assessor: Chung, R.C.K.  
Refs: 19073

**Heliciopsis whitmorei**
Proteaceae  
LR/cd  
Malaysia (Peninsular Malaysia)
Rarely found, this forest species is known only from Gunung Mandi Angin, Ulu Sungai Terengganu and Ulu Bendong Kemaman in Terengganu.
Assessor: Chung, R.C.K.  
Refs: 19073

**Helicostylis heterotricha**
Moraceae  
EN B1+2bc  
Brazil (Amazonas)
A tree of non-flooded forest in the upper Amazon.
Assessor: Pereira, J.P. et al.  
Refs: 7980, 15717

**Helietta glaucescens**
Rutaceae  
EN B1+2c  
Cuba
A small tree restricted to the karstic block mountains and limestone cliffs in the northern Sierra Maestra mountain range, province of Santiago de Cuba.
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

**Hemandrachne chevelieri**
Connaraceae  
EN B1+2c  
Côte d'Ivoire, Ghana
Occurring in wet evergreen forest, this species is known from few localities in coastal Côte d'Ivoire and Ghana. In these areas, the forest has severely declined in extent through logging, commercial forestry and mining activities.
Assessor: Assi, A.  
Refs: 2773, 12061, 12822, 14719

**Hemandrachne mannii**
Connaraceae  
LR/nt  
Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Ghana, Nigeria
A small tree which is very rare in places but ranges widely from Côte d'Ivoire to DR Congo in moist evergreen or semi-deciduous forest.
Assessor: World Conservation Monitoring Centre  
Refs: 8369, 12822, 14719

**Henriettea granularis**
Melastomataceae  
CR B1+2c  
Cuba
An imperfectly known species found in semi-deciduous forests on acid substrate, mainly along rivers and creeks. Degradation of the habitat has resulted in soil erosion and the invasion of exotic species.
Assessor: Areces-Mallea, A.E.  
Refs: 9522, 11403, 19149

**Henriettea membranifolia**
Melastomataceae  
CR A2c, D1  
Puerto Rico
A small tree of wet montane forest, with questionable records dating back to the 1960s from two sites in the Cordillera Central. The populations have not been recently located.
Assessor: World Conservation Monitoring Centre  
Refs: 3786, 7980, 17124

**Henriettea punctata**
Melastomataceae  
VU D2  
Cuba
A shrub, less often a small tree, locally confined to the karstic limestone range of Monteverde in the Nipe-Yateras area of eastern Cuba.
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149
Henrietta squamata
Melastomataceae VU D2 Cuba
An uncommon tree, up to 10m tall, restricted to the Moa mountain group in eastern Cuba where it grows in montane rainforest on serpentine-derived soils between 400 and 900m.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Henrietta goudotiana
Melastomataceae EN B1+2c Colombia
Endemic to Colombia, the species is recorded from Cundinamarca, Huila, Meta and Tolima.
Assessor: Calderon, E.
Refs: 19069

Henrietta ininensis
Melastomataceae VU D2 French Guiana
Described in 1988, this small tree is known only from the type specimen collected in Montagne Bellevue de l'Inini.
Assessor: World Conservation Monitoring Centre
Refs: 9867

Heptacodium miconioides
Caprifoliaceae VU A1cd China (Anhui, Hubei, Zhejiang)
A prized ornamental occurring in two main areas. It has not been found recently in the westernmost site in Xingshan, Hubei. In the east it is found in small numbers in woodlands or on the edge of evergreen broadleaved forest. Population declines through indiscriminate cutting have been recorded. It is the only member of the genus.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Heritiera longipetiola
Sterculiaceae VU D2 Federated States of Micronesia?, Guam, Northern Marianas
A medium-sized tree of moist forest on limestone cliffs and coastal windblown sites. The species is known from occurrences on Guam, Tinian, Saipan and Rota in the Marianas Islands, and also possibly on Pohnpei in the Caroline Islands. There are about 1000 trees on Guam, several hundred on Tinian and fewer than 100 on Saipan. The Rota population has not been found recently. There is strong evidence to suggest that the species is not regenerating. Seedlings and seed are predated by ungulates and crabs. The species is listed as endangered by the Guam government and two populations are effectively protected within military bases.
Assessor: Wiles, G.
Refs: 2474, 2627, 15533, 16676, 19175

Heritiera parvifolia
Sterculiaceae VU B1+2c China (Guangdong - Hainan)
A species restricted to small areas of remaining forest below 500m in the south of Hainan Island. It is a common component of this habitat type and sometimes occurs in pure stands. Regeneration is good. However, the rates of decline of the habitat have been considerable and the species has disappeared from parts of its range.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Heritiera percociaea
Sterculiaceae EN B1+2c Indonesia (Java)
This species is known only from Ujung Kulon and Sukawayaana, a remnant of forest near Pelabuhan Ratu. The former population occurs in a national park but continues to be threatened by illegal logging, fuelwood collection and agricultural encroachment. The latter is unprotected and under intense pressure.
Assessor: World Conservation Monitoring Centre
Refs: 9078

Heritiera utilis
Sterculiaceae VU A1cd Côte d'Ivoire, Gabon, Ghana, Liberia, Sierra Leone
A timber species which occurs commonly, especially in evergreen forests. Exploitation rates are high and likely to be unsustainable.
Assessor: Hawthorne, W.
Refs: 2773, 6127, 12061

Hernandia beninensis
Hernandiaceae LR/nt São Tomé & Príncipe
Relatively well collected, most recently in Diogo Vaz in 1972, the species occurs on cultivated or abandoned plantations. The original forest habitat was extensively felled and cleared for agriculture in the first half of the century.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 10080

Hernandia catalpifolia
Hernandiaceae VU B1+2c Jamaica
A tree which is locally common in the parishes of Portland and St Thomas by streams and in damp ravines in submontane woodland. Deforestation has almost completely removed the habitat in the latter parish, areas in ravines probably representing the only remaining fragments.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Hernandia cubensis
Hernandiaceae CR B1+2c Cuba
Known only from forests near the conical karst complex of Monteverde in Guantánamo Province, this rare tree has not been collected recently. Disturbance has been heavy where logging and agricultural encroachment have occurred.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Hernandia didymantha
Hernandiaceae LR/nt Colombia, Costa Rica, Honduras, Nicaragua, Panama
This species occurs in lowland evergreen forest in lowland evergreen forest in Piura, La Selva, Golfo Duro in Costa Rica, near Almirante, Bocas del Toro in Panama and in an increasing number of other countries.
Assessor: World Conservation Monitoring Centre
Refs: 730, 1881, 3156, 3977, 7272, 14487

Species Summaries
Hernandia drakeana
Hernandiaceae  
French Polynesia (Society Is.)
An extinct species, originally known from Moorea.
Assessor: Florence, J.
Refs: 14513

Hernandia hammelii
Hernandiaceae  
Panama
Known only from the type locality, the species is found in an area of Cocolé which is not well explored botanically but is rapidly being colonised by an increasing number of settlers. It has been suggested that the species is actually a variety of *H. didymantha*, which is more widespread in Central and South America.
Assessor: Mirité, M.
Refs: 7980, 15037, 16772

Hernandia jamaicensis
Hernandiaceae  
Jamaica
Known from western and north-western parishes, the tree is confined to areas of woodland on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Hernandia mascarenensis
Hernandiaceae  
Mauritius, Réunion
The population on Mauritius is extinct and remaining populations on Réunion have experienced severe declines.
Assessor: Straehm, W.
Refs: 9120, 12470, 16426, 19208

Hernandia moerenhoutiana ssp. elliptica
Hernandiaceae  
French Polynesia (Tubuai Is.)
Endemic to the Tubuai Group, the subspecies is recorded only from the islands of Raivave and Tubuai. The latter population is poorly known.
Assessor: Florence, J.
Refs: 14513

Hernandia stenura
Hernandiaceae  
Costa Rica, Nicaragua, Panama
Closely related to *H. didymantha*, the species occurs in lowland wet evergreen forest from Guatemala to Cocolé in Panama.
Assessor: World Conservation Monitoring Centre
Refs: 730, 3156, 7272, 14487

Hernandia stokesii
Hernandiaceae  
VU D2
French Polynesia (Tubuai Is.), Pitcairn Islands
In the Pitcairn Group the species occurs only on Henderson Island. It is commonly found rooted in deep crevices within a restricted range in the north-west of the island. There are estimated to be 500 individuals here. It has been postulated that the Polynesian pigeon, now extinct on the island, alone was responsible for dispersing the seed. The population on Rapa Iti is poorly known. Henderson Island is a World Heritage Site.
Assessor: Waldren, S.
Refs: 2818, 8306, 13604, 14513, 17122

Hernandia tahiensis
Hernandiaceae  
French Polynesia (Society Is., Tubuai Is.)
Little is known about the populations of this species, which are recorded from the island of Tubuai in the Tubuai Group and from Raiatea and Tahiti in the Society Islands.
Assessor: Florence, J.
Refs: 14513

Hernandia temarii
Hernandiaceae  
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Herrania lacinifolia
Sterculiaceae  
Polynesia
Endemic to Colombia, the species is restricted to localities in the departments of Cundinamarca and Tolima.
Assessor: Calderon, E.
Refs: 19069

Herrania umbratica
Sterculiaceae  
Colombia
Endemic to Colombia, the species is restricted to localities in the departments of Norte de Santander and Santander.
Assessor: Calderon, E.
Refs: 19069

Hesperomannia arborescens
Compositae  
USA (Hawaii)
A small shrubby tree, occurring in scattered tiny populations on forested slopes and ridges in the Koolau Mountains, on Oahu, in Olokui Reserve on Molokai and in West Maui Reserve on Maui. In total fewer than 100 individuals exist in 14 populations. Goats threaten the Molokai population and in other areas feral pigs and invasive plants pose immediate problems. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 19041, 19168

Hesperomannia arbuscula
Compositae  
USA (Hawaii)
A small shrubby tree or shrub, known from scattered populations in lowland rainforest in the central and southern Waianae Mountains in Oahu and from a single individual on West Maui. There are four populations on Oahu, containing about 90 individuals. Feral pigs and introduced plants pose the most serious threats. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19168

Hesperomannia lydgatei
Compositae  
USA (Hawaii)
A small tree of dense wet forest known only from a site along Wahiawa Stream on Kauai Island. It is protected
by the US Endangered Species Act.

Assessor: World Conservation Monitoring Centre
Refs: 3372

**Hexalobus mossambicensis**

Annonaceae DD Mozambique

A species of northern Mozambique. Information on the species' range and habitat are inadequate.

Assessor: Bandeira, S.
Refs: 5117, 18965

**Hexalobus salicifoillus**

Annonaceae EN B1+2c Cameroon, Côte d'Ivoire

Two isolated populations are known. In Côte d'Ivoire, the species is confined to swampy areas within remaining forest patches between the rivers Cavally and Sassandra. The largest patch is contained within Tai National Park. Logging and the influx of people have caused a rapid decline and degradation of the habitat. More information is needed on the other population in Cameroon.

Assessor: Assi, A.
Refs: 12590, 12822

**Hexapora curtisi**

Lauraceae CR B1+2c Malaysia (Peninsular Malaysia)

Known only from Penang Hill, this rare lowland forest species may be extinct as most of Penang has been developed.

Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Hibiscadelphus giffardianus**

Malvaceae CR D1 USA (Hawaii)

The last of the original wild specimens on Mauna Loa, Hawaii, died in 1930. Since then cuttings from the species in cultivation have been reintroduced into a fenced area at Kipuka Puuaulu, in Volcanoes National Park. Nine individuals remain here. They show some signs of damage by rats and pests. The establishment of a viable population in the wild may be hampered by the decline of the plants' likely pollinator, the Hawaiian honey-creeper species. The species is protected by the US Endangered Species Act. The genus is endemic to the Hawaiian Islands and is known from species which are extinct or critically endangered.

Assessor: World Conservation Monitoring Centre
Refs: 3372, 19037

**Hibiscadelphus hualalaiensis**

Malvaceae CR D1 USA (Hawaii)

Originally known from three populations in Puuwaawaa on Hawaii, the last known wild tree died in 1992. A small number of cultivated trees have been reintroduced into two fenced sanctuaries. The species' natural habitat is dry to moist forest on lava fields between 915 and 1020m. The only remaining patches are heavily threatened by fire, grazers, invasive plants and ranching activities. The species is protected by the US Endangered Species Act. The genus is endemic to the Hawaiian Islands and is known from species which are extinct or critically endangered.

Assessor: World Conservation Monitoring Centre
Refs: 3372, 19037

**Hibiscadelphus wilderianus**

Malvaceae EX USA (Hawaii)

A single tree was found in 1910 on the dry forest lava fields of Auwahi on Maui. It has since died and the species is presumed extinct. The genus is endemic to the Hawaiian Islands and is known from species which are extinct or critically endangered.

Assessor: World Conservation Monitoring Centre
Refs: 3372

**Hibiscadelphus woodii**

Malvaceae CR D1 USA (Hawaii)

A small tree found in 1991. It is known only from the site of discovery in Kalalau Valley in Napali Coast State Park on Kauai. Only four trees have been found growing on cliff walls in montane rainforest. The main threats to the population come from feral goats and pigs and invasive plants. The species is protected by the US Endangered Species Act. The genus is endemic to the Hawaiian Islands and is only known from species which are extinct or critically endangered.

Assessor: World Conservation Monitoring Centre
Refs: 19036, 19086

**Hibiscus arnottianus ssp. immaculatus**

Malvaceae EN B1+2c, C2a, D1 USA (Hawaii)

Formerly ranging from Waihanau Valley to Papalaua Valley on East Molokai, the taxon is now reduced to an area stretching for 5km on the northern coast, where three populations occur along the steep cliffs. There are no more than 100 individuals in the area. Feral goats are...
The World List of Threatened Trees

Hibiscus brackenridgei ssp. brackenridgei
Malvaceae EN C2a
USA (Hawaii)
A sprawling to erect shrub or tree known from small populations restricted to dry forest and shrubland up to 350m on Molokai, Lanai, Maui and Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19040

Hibiscus brackenridgei ssp. mokuleianus
Malvaceae EN B1+2c, C2a
USA (Hawaii)
A tree of dry forest and shrubland known from three localised populations, two on Kauai at Lihue and Olokele Canyon, and in the Waiana Mountains between Kawaihapa and Puupane on Oahu.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Hibiscus clayi
Malvaceae CR D1
USA (Hawaii)
Occurring as a shrub or tree, the species is endemic to Kauai where it has been recorded from a number of locations in dry forest up to 350m. A group of four trees in the Nounou Mountains appears to be the only remaining population. The damage caused by cattle was realised in 1928 when the species was first brought into cultivation. That threat has been removed but the habitat continues to be steadily degraded by the spread of invasive plants, by feral pigs and potentially recreational activities. A small number of individuals have been planted to augment the population in the wild. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19038

Hibiscus kokio ssp. kokio
Malvaceae VU A1ce
USA (Hawaii)
A variable subspecies known from scattered populations in dry to moist forest up to 800m on Kauai, Oahu, Molokai and Maui. It is also presumed to be present on Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Hibiscus kokio ssp. sainjohianus
Malvaceae EN C2a
USA (Hawaii)
This subspecies is confined to forest in north-west Kauai, occurring up to 1100m.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Hibiscus waimeae ssp. hannerae
Malvaceae EN B1+2c, C2a, D1
USA (Hawaii)
A rainforest tree confined to Kauai, where two remaining populations occur in adjacent valleys, Limahuli and Hanakapiai, on the north coast. An additional population in Kalihiwai appears to be extinct and after Hurricane Iniki the population in Hanakapiai Valley was halved to about 25 plants. The second population consists of between 50 and 100 plants. The lowland rainforest habitat is frequently damaged by feral pigs and invaded by introduced plants. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19036, 19086

Hibiscus waimeae ssp. waimeae
Malvaceae LR/nt
USA (Hawaii)
This subspecies is distributed from Waimea Canyon to the ocean-facing valleys in the west and south-west on Kauai.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Hieronima crassistipula
Euphorbiaceae CR B1+2c
Cuba
A very rare tree of natural pine forest along ravines and creeks in Pinar del Rio Province and on Isla de Pinos. Population numbers are probably too low to ensure the species' survival without intervention.
Assessor: Areces-Malena, A.E.
Refs: 11403, 18485, 19149

Hieronima macrocarpa
Euphorbiaceae VU B1+2c
Colombia, Ecuador
Assessor: Calderon, E.
Refs: 4217, 19069

Hildergardia cubensis
Sterculiaceae VU B1+2c
Cuba
A tree found in lowland semi-deciduous forest on rocky limestone soils in eastern Cuba. Populations have declined substantially in the past decades through habitat clearance and burning for logging, grazing and agricultural encroachment.
Assessor: Areces-Malena, A.E.
Refs: 19149

Hildergardia gillettii
Sterculiaceae EN C2b, D1
Somalia
In the last 10 years fewer than 10 individuals have been found, most of them in the vicinity of El Ellan. Although the true population size is likely to be greater, the tree and its habitat are threatened with overcutting and grazing. The population is unprotected but local inhabitants are aware of its uniqueness.
Assessor: Thuillin, M.
Refs: 18665

Hildergardia populifolia
Sterculiaceae CR D1
India (Andhra Pradesh, Tamil Nadu)
Endemic to the Eastern Ghats in Andra Pradesh and Tamil Nadu, the species is believed to have disappeared from all its recorded localities except for one on the forested eastern slopes of the Kalrayans Hills, where about 20 trees survive.
Assessor: World Conservation Monitoring Centre
Refs: 4799
**Species Summaries**

**Himatanthus stenophyllus**
Apocynaceae
Suriname
No locality is recorded for the species.
Assessor: World Conservation Monitoring Centre
Refs: 19196

**Hirtella enneandra**
Chrysobalanaceae
Colombia
An endemic to Valle.
Assessor: Calderon, E.
Refs: 5970, 7980, 19069

**Hirtella megacarpa**
Chrysobalanaceae
Tanzania
Rarely occurring in moist evergreen montane forest in two mountain ranges, this species is thought to be sufficiently ecologically and geographically distinct from the related *H. zanzibarica* to keep it taxonomically separate, although morphological differences are not substantial. In the West Usambaras a population is known in Shagai and in the Udzungwas there are occurrences in Mwanhana and Nyumbanitu.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 11631

**Holarrhena pubescens**
Apocynaceae
Pakistan
A small tree, once occurring in Nurpur, Tret, Murree Hills up to 1200m, now apparently extinct.
Assessor: World Conservation Monitoring Centre
Refs: 4013, 5995

**Holmskioldia gigas**
Verbenaceae
Kenya, Tanzania
Formerly known from a single individual in Kenya, it was felled in the 1980s, the species is now known to occur in a 0.1ha patch of forest near Ngarama Forest Reserve in Tanzania. Only a single individual exists.
Assessor: Lovett, J. & G.P. Clarke
Refs: 5654, 6396, 16796

**Homalanthus polyandrus**
Euphorbiaceae
New Zealand (Kermadec Is.)
A small pioneer tree found only on Raoul Island in the Kermadec Group. By the early 1970s only a few small groups of trees had survived the damage caused by feral goats. A spectacular recovery in numbers has since been made following the removal of goats.
Assessor: World Conservation Monitoring Centre
Refs: 5563, 9800, 17637

**Homalium dalzielii**
Flacourtiaceae
Benin, Nigeria
A small tree recorded in Lagos in Nigeria and from Djibouti and Kpoguidi in Benin.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 7111, 11504

**Homalium gracilipes**
Flacourtiaceae
Tanzania
Known only from the type collection in Liwiri-Kiteza forest at Songea, southern Tanzania, the species occurs in moist semi-deciduous montane forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5020, 5204

**Homalium henriquesii**
Flacourtiaceae
São Tomé & Príncipe (Príncipe, São Tomé)
This species is present in all high altitude sites. Regeneration is reported to be good. The wood is used as a construction timber.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 10080, 19042, 19111

**Homalium jainii**
Flacourtiaceae
India (Tamil Nadu)
Known only from the type collection, this canopy tree occurs in a restricted area of submontane forest in the Agasthyamala Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Homalium juxtapositum**
Flacourtiaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Homalium kunstleri**
Flacourtiaceae
Malaysia (Peninsular Malaysia)
A very rare species of lowland rainforest, scattered in limestone areas in Kinta, Perak.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Homalium lacticum var. glabratum**
Flacourtiaceae
China (Yunnan)
Remaining stands of this large tree are small and restricted to Jinghong, Mengla and Gengma Counties in Yunnan. The variety is a scattered component of the upper canopy in monsoon or subtropical rainforest. Large trees are increasingly scarce and continue to be cut for the timber. Regeneration, too, is insufficient. Protected populations exist in Xishuangbanna Nature Reserve.
Assessor: Sun, W.
Refs: 1818, 11847, 19055
**Homalium mathieianum**

Flacourtiaeae  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Homalium ogouense**

Flacourtiaeae  
VU D2  
Gabon  
A species known from collections made around Lastoursville in 1929–1930. A collection in Wageningen comes from Echira. The area has been heavily logged and, although the species may be more widespread in Gabon’s relatively unexplored forests, most areas are now under concession to logging companies.  
Assessor: World Conservation Monitoring Centre  
Refs: 8415, 19043

**Homalium pataklaense**

Flacourtiaeae  
VU B1+2c  
Côte d’Ivoire, Gabon  
Also known under the synonym, *H. lastoursvillense*, this species occurs in two disjunct populations. The threatened Côte d’Ivoire population is restricted largely to Tai National Park. Forested areas outside the park have been heavily logged and degraded. In Gabon the species has been collected only from Lastoursville, where logging has been intensive. Although it may be more widespread, most forest areas are now under concession to logging companies.  
Assessor: Assi, A.  
Refs: 2773, 8415, 12822

**Homalium polystachyum**

Flacourtiaeae  
EN B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Homalium rubiginosum**

Flacourtiaeae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Homalium rubrocostatum**

Flacourtiaeae  
EN B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Homalium schleumerianum**

Flacourtiaeae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Homalium Smythei**

Flacourtiaeae  
VU B1+2c  
Côte d’Ivoire, Guinea, Liberia, Sierra Leone  
This species is confined to moist forest in the Upper Guinea region, from Guinea to Côte d’Ivoire. In the latter country the population is mainly contained within Tai National Park. Forested areas outside the park have been widely logged and degraded.  
Assessor: Assi, A.  
Refs: 12822

**Homalium spathulatum**

Flacourtiaeae  
EN D1  
Malaysia (Peninsular Malaysia)  
A very rare species confined to lowland rainforest on the island of Pangkor, Perak. The habitat is threatened by the encroaching settlements and tourism.  
Assessor: Chua, L.S.L.  
Refs: 19073

**Homalium taypau**

Flacourtiaeae  
VU D2  
Pitcairn Islands  
Restricted to hillsides and valleys on Pitcairn Island, the species is still common and often dominates the vegetation that remains. The population probably consists of at least 2000 mature individuals. Loss of habitat and spread of invasive plants have caused the populations to be reduced to their present extent. In the past the timber was also frequently cut for use in construction work. Regeneration is strong from cut stumps but rare from the seed.  
Assessor: World Conservation Monitoring Centre  
Refs: 5658, 13604, 19154

**Homalium travancoricum**

Flacourtiaeae  
VU B1+2c  
India (Kerala, Tamil Nadu)  
Collections are recorded from the Travancore range down to the Agasthyamalai Hills and field data have identified further populations to the south of the Niligiris. The species occurs in the lower storey of evergreen forest, mainly at low altitudes.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

**Homalium undulatum**

Flacourtiaeae  
VU B1+2a  
Malaysia (Peninsular Malaysia)  
A small to medium-sized tree occurring mainly in limestone hill forest in Kedah (Langkawi) and Perak, where it is threatened by increasing settlement and logging. It is unclear whether the species occurs in Peninsular Thailand or not.  
Assessor: Chua, L.S.L.  
Refs: 8464, 19073

**Hopea acuminata**

Dipterocarpaceae  
CR A1cd, B1+2c  
Philippines  
A widespread species in the greatly diminished evergreen and semi-evergreen forests of the Philippines. The lightweight merawan timber is used for the construction of bridges, ships and houses.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

**Hopea aequilis**

Dipterocarpaceae  
CR A1c, B1+2c, C1  
Malaysia (Sabah, Sarawak)  
An endemic tree found in mixed dipterocarp forest on low hills, where the demand for agricultural land exerts a strong pressure on remaining forest.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

**Hopea altocollina**

Dipterocarpaceae  
EN A1cd, B1+2c  
Malaysia (Sabah, Sarawak)  
A large tree which is locally common on clay-rich
hillsides and spurs. An occurrence is recorded in a site proposed as a reserve.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea andersonii** ssp. *basallicola*

Dipterocarpaceae  
_CR A1c, B1+2c_

Malaysia (Sabah, Sarawak)
This subspecies, endemic to Borneo, occurs throughout mixed dipterocarp forest on rich clay soils.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea apiculata**

Dipterocarpaceae  
_CR A1c, B1+2c_

Malaysia (Peninsular Malaysia), Myanmar, Thailand
The species is probably a synonym of *H. oblongifolia*. Some populations are known within forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea apiculata**

Dipterocarpaceae  
_DD_

Papua New Guinea
Endemic to Papua New Guinea, this species forms pure stands in secondary forest and is a locally important timber species.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea auriculata**

Dipterocarpaceae  
_EN A1c, B1+2c_

Malaysia (Peninsular Malaysia)
This tree is restricted to hill forests in Peninsular Malaysia. It is a small tree, that is not exploited.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

**Hopea bancana**

Dipterocarpaceae  
_CR A1c, B1+2c_

Indonesia (Sumatra)
Endemic to Sumatra, this species is seriously threatened by the loss of its forest habitat.
Assessor: Ashton, P.
Refs: 7673, 13857

**Hopea bastianica**

Dipterocarpaceae  
_CR A1c, B1+2c, C1, D1_

Philippines
A species of primary lowland forest, seriously threatened by the loss of its habitat.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea beccariana**

Dipterocarpaceae  
_CR A1c+2cd_

Indonesia (Sumatra), Malaysia, Thailand
Widespread on coastal hills and inland ridges, this tree is an important source of heavy merawan timber and dammar resin. Some populations are known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea bilionensis**

Dipterocarpaceae  
_CR A1c+2c, B1+2c_

Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
This species is locally common on the sandy islands of Biliton and Banka.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea brachynota**

Dipterocarpaceae  
_CR A1c+2c, B1+2c, C1, D1_

Philippines
A species which occurs in lowland primary forests on Mindanao Island. It is seriously threatened by the loss of its habitat.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea brevipetiolaris**

Dipterocarpaceae  
_CR A1c, B1+2c, C1, D1_

Sri Lanka
A species with an extremely restricted distribution, scattered in the remnants of lowland semi-evergreen rainforest in the south-west corner of Sri Lanka. It was discovered in only three forest localities within Kurunegala District, during the extensive surveys conducted for the National Conservation Review. The tree has little value as a timber because of its warped bole.
Assessor: Ashton, P.
Refs: 15431, 13857, 19112

**Hopea cagayanensis**

Dipterocarpaceae  
_CR A1c+2cd, B1+2c_

Philippines
This locally abundant species is restricted to the diminishing lowland primary forest of north-east Luzon.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea canarensis**

Dipterocarpaceae  
_DD_

India (Karnataka)
A lowland forest species, collected only once from a site near Kudremukh.
Assessor: Ashton, P.
Refs: 3998, 13857, 19144

**Hopea celebica**

Dipterocarpaceae  
_EN A1c+2cd, B1+2c_

Indonesia
A species which is locally common in lowland semi-evergreen forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea centipeda**

Dipterocarpaceae  
_EN A1c+2c_

Brunei, Malaysia (Sarawak)
Occurs locally on river banks.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Hopea chinensis**

Dipterocarpaceae  
_CR A1c+2cd, C1, D1_

China (Guangxi), Viet Nam
A relatively small evergreen tree restricted to monsoon forest in the Shiwan Mountains. It provides a valuable timber, renowned as "ten-thousand year wood". Overcutting is a serious problem.
Assessor: Ashton, P.
Refs: 1818, 11847, 13857, 15754
Hopea cordata
Dipterocarpaceae  
CR A1cd+2cd, B1+2c, C1, D1  
Viet Nam  
Assessor: Ashton, P.  
Refs: 848, 7673, 9169, 13857

Hopea coriacea
Dipterocarpaceae  
CR A1cd+2cd, B1+2c, C1, D1  
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia)  
Found scattered on low hills and ridges, this slow-growing tree is exploited locally for house supports and boat hulls. It is unlikely to survive logging activities because it doesn't reach reproductive age within a logging cycle.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857, 17140

Hopea depressinerva
Dipterocarpaceae  
CR B1+2c, C2a, D1  
Malaysia (Sarawak)  
Restricted to granodiorite hill slopes in western Sarawak, this tree may already be extinct.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea discolor
Dipterocarpaceae  
EN A1bcd, B1+2c, C1, D1  
Sri Lanka  
This species' distribution is extremely restricted, occurring in pure stands on ridges in lowland wet evergreen forests. It apparently regenerates sufficiently in its natural habitat. This species was found in seven forests during the surveys conducted for the National Conservation Review.  
Assessor: Ashton, P.  
Refs: 13857, 15431, 17195, 19112

Hopea enicosanthoides
Dipterocarpaceae  
CR A1c, B1+2c  
Malaysia (Sabah)  
This small tree species is locally frequent in Sarawak.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea erosa
Dipterocarpaceae  
CR A1d+2d, B1+2e, C1, D1  
India (Karnataka, Kerala, Tamil Nadu)  
Known only from very few scattered records, the species is confined to lowland evergreen forest at the southern end of the Western Ghats.  
Assessor: SSC Conifer Specialist Group  
Refs: 13857, 19144

Hopea exalata
Dipterocarpaceae  
VU A1d, B1+2c  
China (Guangdong - Hainan)  
A small tree of monsoon forest, only recently discovered in Yaxian County of Hainan Province. The degree of habitat disturbance suggests that most of the trees are secondary growth. The species has a good regenerative capacity in its natural habitat. The population on Ganashi Mountain is contained within a designated nature reserve. The species presents several primitive features which are of phylogenetic interest.  
Assessor: Ashton, P.  
Refs: 1818, 11847, 13857

Hopea ferruginea
Dipterocarpaceae  
EN A1cd+2cd, B1+2c  
Cambodia, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam  
A commercially important timber tree, which is commonly traded in isolation from other members of the genus under the name malut.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 10013, 13857

Hopea fluvialis
Dipterocarpaceae  
EN A1c+2c  
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)  
This tree is recorded in sites proposed for reserve status. The species is locally abundant, by streams.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea foxworthyi
Dipterocarpaceae  
VU D2  
Philippines  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea glabra
Dipterocarpaceae  
EN A1cd+2cd  
India (Karnataka, Kerala, Tamil Nadu)  
Confined to the southern end of the Western Ghats, the species has been collected from scattered localities in low to medium altitude evergreen forest. The most northerly occurrence is recorded in the Nilgiri Hills, the most southerly in the Agasthyamalai range.  
Assessor: Ashton, P.  
Refs: 3998, 9169, 13857, 19144

Hopea glabrifolia
Dipterocarpaceae  
DD  
Papua New Guinea  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857
Hopea glaucescens
Dipterocarpaceae
CR A1c+2c, B1+2c
Malaysia (Peninsular Malaysia)
Assessor: Ashton, P.
Refs: 5550, 7673, 13857

Hopea gregaria
Dipterocarpaceae
EN A1cd+2cd
Indonesia
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea griffithii
Dipterocarpaceae
VU A1cd+2cd
Malaysia (Peninsular Malaysia, Sarawak), Myanmar, Singapore, Thailand
This species is locally common on leached soils, with some populations known to occur within forest reserves.
Assessor: Ashton, P.
Refs: 3998, 9169, 19169, 13857

Hopea hainanensis
Dipterocarpaceae
CR A1cd+2cd, B1+2c
China (Guangdong - Hainan), Viet Nam
A slow-growing tree, occurring in remaining areas of lowland rainforest on Hainan Island in China and Nghi Dan, Quy Chau, Quy Hop and Nhu Xuan and a few smaller localities in Viet Nam. The Chinese population consists of several hundred mature trees, which are now protected from cutting. The timber is highly valued in both China and Viet Nam.
Assessor: Ashton, P.
Refs: 848, 1818, 11847, 13857, 15357, 15754

Hopea helferi
Dipterocarpaceae
CR A1cd+2cd, B1+2c
Cambodia, India (Andaman and Nicobar Is. - Andaman Is.), Malaysia (Peninsular Malaysia), Myanmar, Thailand
A large tree found in semi-evergreen and evergreen forests. The timber is valuable in the construction industry.
Assessor: Ashton, P.
Refs: 2430, 9169, 13857

Hopea hongyuanensis
Dipterocarpaceae
CR A1cd, B1+2c, C1, D1
Viet Nam
Endemic to Viet Nam, this slow-growing tree is valued highly for its hard, heavy timber, which is included in Viet Nam's 'precious timber' group. Occurrences are known from mixed forest at about 950m in Quang Ninh, Lang Son, Tuyen Quang, Ninh Binh and Nghe An Provinces.
Assessor: Ashton, P.
Refs: 9169, 13857, 15357

Hopea imperfecta
Dipterocarpaceae
CR A1cd, B1+2c
Papua New Guinea
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea jacobi
Dipterocarpaceae
CR B1+2c, C1, D1
India (Karnataka)
A relatively small dipterocarp found only in evergreen forest in Kodugu in the Western Ghats. It may now be extinct.
Assessor: Ashton, P.
Refs: 4799, 13857, 19144

Hopea johorensis
Dipterocarpaceae
CR A1cd, B1+2c
Malaysia (Peninsular Malaysia)
A tree which is restricted to eastern Johore, often on hill ridges. Some populations are found within forest reserves.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Hopea jucunda ssp. jucunda
Dipterocarpaceae
CR A1cd
Sri Lanka
Some populations are known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 13857, 15431

Hopea jucunda ssp. modesta
Dipterocarpaceae
CR A1cd
Sri Lanka
Some populations are known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 13857

Hopea kerangasensis
Dipterocarpaceae
CR A1c, B1+2c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
This species is locally abundant in Sarawak, with some populations occurring in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea latifolia
Dipterocarpaceae
CR A1c, B1+2c
Brunei, Cambodia, Malaysia (Peninsular Malaysia, Sarawak), Thailand?
This tree is locally common in lowland mixed dipterocarp forest. It is widely distributed in Peninsular Malaysia and is known to occur in a number of forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea longirostrata
Dipterocarpaceae
CR A1cd, B1+2c, C1, D1
Malaysia (Sarawak)
This species is restricted to mixed dipterocarp forests in Sarawak.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea malibato
Dipterocarpaceae
CR A1cd, B1+2c
Philippines
A widespread and locally common species.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857
Hopea megacarpa  
Dipterocarpaceae  
EN A1c, B1+2c  
Malaysia (Sarawak)  
This species is locally frequent in mixed dipterocarp forest.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea mengerawan  
Dipterocarpaceae  
CR A1cd, B1+2c  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak, Singapore)  
Scattered throughout lowland mixed dipterocarp forest, this species is an important source of merawan timber and also produces a good-quality dammar resin. It is also contained within a number of forest reserves in Peninsular Malaysia.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 9199, 13857

Hopea mesueoides  
Dipterocarpaceae  
EN A1c, B1+2c  
Brunei, Malaysia (Sarawak)  
A species of mixed dipterocarp and heath forest. The habitat is threatened by clearance and degradation.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea micrantha  
Dipterocarpaceae  
CR A1c, B1+2c, C1, D1  
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)  
A tree found in heath forest, where it is severely threatened by habitat conversion and degradation.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea mindanensis  
Dipterocarpaceae  
CR A1cd, B1+2c, C1, D1  
Philippines  
This lowland primary species may already be extinct.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea mollissima  
Dipterocarpaceae  
CR A1cd, B1+2c, C1, D1  
China (Yunnan), Viet Nam  
Only recently discovered, the species occurs in evergreen rainforest in south Yunnan and northern Viet Nam. In China populations are disappearing because of deforestation and habitat degradation. Small stands still exist in a number of provinces in Viet Nam.  
Assessor: Ashton, P.  
Refs: 9169, 11847, 13857, 15357

Hopea montana  
Dipterocarpaceae  
CR B1+2c, D1  
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah)  
This tree is found infrequently on hill slopes in dipterocarp forest.  
Assessor: Ashton, P.  
Refs: 5550, 7673, 9169, 13857

Hopea nervosa  
Dipterocarpaceae  
CR A1c, B1+2c  
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)  
This species is locally common on lowland clay-rich fertile soil.  
Assessor: Ashton, P.  
Refs: 5550, 7673, 9169, 13857

Hopea nigra  
Dipterocarpaceae  
CR A1c, B1+2c  
Indonesia (Sumatra)  
A tree endemic to the lowland forests of Sumatra, where it is severely threatened by the loss and degradation of the habitat.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea nutans  
Dipterocarpaceae  
CR A1cd+2cd, B1+2c  
Brunei, Indonesia (Kalimantan), Malaysia (Peninsular Malaysia, Sabah, Sarawak)  
A species of periodically inundated sandy soils, used for its good-quality giam timber.  
Assessor: Ashton, P.  
Refs: 5550, 7673, 9169, 13857

Hopea oblongifolia  
Dipterocarpaceae  
DD  
Myanmar, Thailand  
This species is very rare and restricted in range.  
Assessor: Ashton, P.  
Refs: 3998, 9169, 13857, 18243

Hopea adorata  
Dipterocarpaceae  
VU A1cd+2cd  
Bangladesh, Cambodia, India (Andaman and Nicobar Is. - Andaman Is.?), Laos, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam  
This widespread tree usually occurs in lowland riparian forest on deep rich soils. The Indian population, however, occurs in moist evergreen forest at higher altitudes, away from streams. It provides merawan timber and the resin has economic value. In Viet Nam a long period of selective logging has reduced the size of stands to small groups of trees or isolated individuals.  
Assessor: Ashton, P.  
Refs: 3619, 3998, 5550, 7673, 10013, 11727, 13857, 15357, 15754, 16925, 17140

Hopea aoidae  
Dipterocarpaceae  
CR A1cd+2cd, B1+2c, C1, D1  
Indonesia (Kalimantan)  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857

Hopea pachycarpa  
Dipterocarpaceae  
VU A1c+2c  
Brunei, Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak)  
A tree found in mixed dipterocarp forest. It is known to occur in an area proposed as a reserve.  
Assessor: Ashton, P.  
Refs: 7673, 9169, 13857, 17140
Hopea parviflora
Dipterocarpaceae  EN A1c+2c, B1+2c
India (Karnataka, Kerala, Tamil Nadu)
Endemic to the south-west, the species is common and has a relatively wide distribution in evergreen, semi-deciduous and deciduous moist forest from sea level to about 900m. It appears to be regenerating well in the wild and provides a popular construction timber.
Assessor: Ashton, P.
Refs: 3998, 8483, 13857, 19144

Hopea psucinerisa
Dipterocarpaceae  DD
Indonesia (Sumatra)
This species is possibly extinct.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea pedicellata
Dipterocarpaceae  EN A1c+2c
Cambodia, Indonesia (Kalimantan), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Thailand
A tree found in mixed dipterocarp forest. It is contained within productive and protected forests in Peninsular Malaysia.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857, 18243

Hopea pentanerisa
Dipterocarpaceae  CR A1c+2c, B1+2c
Brunei, Malaysia (Sabah, Sarawak)
A species which occurs in highly threatened mixed peat-swamp forests in northern Borneo. It is a popular timber for heavy construction. Some populations are known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea philippinensis
Dipterocarpaceae  CR A1c, B1+2c
Philippines
This species occurs in the much-diminished, non-seasonal evergreen forests of the Philippines. The tree's small size allows only for small-scale exploitation of the merawan timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea pierrei
Dipterocarpaceae  EN A1c+2c, B1+2c, C1, D1
Cambodia, Indonesia (Sumatra), Laos, Malaysia (Peninsular Malaysia), Thailand, Viet Nam
A relatively small dipterocarp, which is found mainly in lowland evergreen rainforest on sandy soils, and also in heath forest in parts of Indo-China. The timber is highly valued in Viet Nam and Cambodia. Populations in the former are seriously reduced by past chemical warfare, exploitation and habitat reduction. In Peninsular Malaysia the species is reported in several forest reserves.
Assessor: Ashton, P.
Refs: 848, 7673, 9169, 13857, 14573, 15357

Hopea plagata
Dipterocarpaceae  CR A1c, B1+2c
Malaysia (Sarawak), Philippines
The preferred habitat of the species is semi-evergreen forest and sometimes evergreen forest. It is one of the most popular timbers for heavy construction work in the Philippines.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea polyalthioides
Dipterocarpaceae  CR A1c+2c, B1+2c, C1, D1
Malaysia (Peninsular Malaysia)
Endemic to south Johore and under severe threat of extinction, this dipterocarp species occurs on well-drained lowland forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea ponga
Dipterocarpaceae  EN A1c+2c, B1+2c
India (Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu)
A gregarious tree, widely occurring in low to medium altitude evergreen forest, especially along riversides.
Assessor: Ashton, P.
Refs: 8483, 13857, 15754, 19144

Hopea pterygota
Dipterocarpaceae  VU A1c+2c, B1+2c, C1, D1
Malaysia (Sarawak)
Locally common in Perak forests, populations are also known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Hopea pubescens
Dipterocarpaceae  CR A1c, B1+2c
Malaysia (Peninsular Malaysia)
Endemic to Peninsular Malaysia, this tree is often found on flat and hilly well-drained land. The species is relatively abundant in Pahang.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Hopea quisumbingiana
Dipterocarpaceae  CR B1+2c
Philippines
A species known only from a single collection from Samar Island.
Assessor: World Conservation Monitoring Centre
Refs: 9501

Hopea racophloea
Dipterocarpaceae  EN A1c+2c, B1+2c
India (Karnataka, Kerala)
This tree is known from scarce and scattered collections from evergreen forests at the southern end of the Western Ghats.
Assessor: Ashton, P.
Refs: 3998, 9169, 13857, 19144

Hopea racopae
Dipterocarpaceae  EN A1c+2c, B1+2c
Cambodia, Laos, Thailand, Viet Nam
The species is known to occur in forest reserves.
Assessor: Ashton, P.
Refs: 6206, 13857
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>IUCN Status</th>
<th>Conservation Status</th>
<th>Description</th>
<th>Refs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hopea reticulata</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd, B1+2c, C1, D1</td>
<td>Thailand, Vietnam</td>
<td>A species of seasonal evergreen forest.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea samarensis</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd, B1+2c, C1, D1</td>
<td>Philippines</td>
<td>The species is under severe threat from the loss of its forest habitat.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea sanguine</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd, B1+2c, C1, D1</td>
<td>Indonesia (Java, Lesser Sunda Is., Sumatra), Malaysia (Peninsular Malaysia), Myanmar, Singapore, Thailand</td>
<td>This tree is widely distributed, and locally common by rivers. It is commonly cut as merawam timber.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857, 17140</td>
</tr>
<tr>
<td><strong>Hopea scabra</strong></td>
<td>Dipterocarpaceae</td>
<td>DD</td>
<td>Papua New Guinea</td>
<td>A small tree once locally exploited for house posts and now thought to be extinct.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea semicuneata</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd, B1+2c</td>
<td>Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia)</td>
<td>A tree of lowland dipterocarp forest on clay-rich alluvium. It is cut for its giam timber.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea shingkeng</strong></td>
<td>Dipterocarpaceae</td>
<td>EX</td>
<td>India (Arunachal Pradesh)</td>
<td>A small tree once locally exploited for house posts and now thought to be extinct.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857, 15754</td>
</tr>
<tr>
<td><strong>Hopea siamensis</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1c, B1+2c</td>
<td>Cambodia, Thailand, Vietnam</td>
<td>A small tree which is locally common but confined to a single locality in Selangor Province within the Kanching Forest Reserve.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea subalata</strong></td>
<td>Dipterocarpaceae</td>
<td>EN D1</td>
<td>Malaysia (Peninsular Malaysia)</td>
<td>A small tree, which is locally common but confined to a single locality in Selangor Province within the Kanching Forest Reserve.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea subanceolata</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1c, B1+2c</td>
<td>Malaysia (Peninsular Malaysia)</td>
<td>A locally abundant tree found on undulating land and low spurs up to 150m. The species is common along river basins by Gunung Perak and Gunung Pahang.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea sulcata</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1c, B1+2c</td>
<td>Malaysia (Peninsular Malaysia)</td>
<td>A gregarious tree which is locally common but restricted to forested ridges.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea tenuifolia</strong></td>
<td>Dipterocarpaceae</td>
<td>EN C2a, D1</td>
<td>India (Kerala, Tamil Nadu)</td>
<td>This slow-growing species is restricted to a small area of semi-evergreen forest, usually near large rivers, in Thennala and the Silent Valley in Kerala, and in Tirunelveli and Courtallam in Tamil Nadu. It regenerates copiously around the parent tree. Locally, the wood is used in construction work.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857, 19144</td>
</tr>
<tr>
<td><strong>Hopea utilis</strong></td>
<td>Dipterocarpaceae</td>
<td>EN C2a</td>
<td>Brunei, Malaysia (Sabah, Sarawak)</td>
<td>A tree which occurs in remaining patches of <em>kerangas</em> vegetation in Brunei and Sarawak. It is locally abundant in heath forest.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea vaccinifolia</strong></td>
<td>Dipterocarpaceae</td>
<td>EN A1c, B1+2c, C2a</td>
<td>Brunei, Malaysia (Sabah)</td>
<td>A tree which occurs in remaining patches of <em>kerangas</em> vegetation in Brunei and Sarawak. It is locally abundant in heath forest.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
<tr>
<td><strong>Hopea wightiana</strong></td>
<td>Dipterocarpaceae</td>
<td>EN A1c+2c, B1+2c</td>
<td>India (Karnataka, Kerala, Tamil Nadu)</td>
<td>A relatively small tree, locally used for construction. It can occur frequently and regeneration is observed to be good.</td>
<td>Ashton, P. 1999; 7673, 9169, 13857</td>
</tr>
</tbody>
</table>
Hopea wyatt-smithii
Dipterocarpaceae  CR A1c+2c, B1+2c
Indonesia (Kalimantan) A species of mixed dipterocarp forest, under severe threat from habitat degradation.
Assessor: Ashton, P.  Refs: 7673, 9169, 13857

Horsfieldia ampla
Myristicaceae  VU D2
Papua New Guinea A small tree known only from the type collection which was found in dense humid forest in Sepik Province.
Assessor: World Conservation Monitoring Centre  Refs: 18674

Horsfieldia ampliformis
Myristicaceae  VU D2
Papua New Guinea A small tree of lower montane rainforest, known from two collections, one from Sepik Province and the other from Morobe Province.
Assessor: World Conservation Monitoring Centre  Refs: 18674

Horsfieldia amplexomontana
Myristicaceae  VU D2
Malaysia (Sabah) Endemic to Mount Kinabalu, the species is known from four collections taken from primary and secondary forest.
Assessor: World Conservation Monitoring Centre  Refs: 1766, 3597

Horsfieldia androphora
Myristicaceae  VU D2
Malaysia (Sabah, Sarawak) A montane forest tree, collected once from Sabah and three times from Sarawak.
Assessor: World Conservation Monitoring Centre  Refs: 1766, 3597

Horsfieldia ardisifolia
Myristicaceae  VU A1c
Philippines A Philippines endemic found in lowland forests in moist valleys on the islands of Luzon, Mindoro, Sibuyan, Samar and Leyte.
Assessor: World Conservation Monitoring Centre  Refs: 18674

Horsfieldia ajeheiensis
Myristicaceae  VU D2
Indonesia (Sumatra) A montane forest species known from a single collection from North Aceh.
Assessor: World Conservation Monitoring Centre  Refs: 319, 10547

Horsfieldia borneensis
Myristicaceae  VU A1c
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak) This species is apparently specific to primary lowland dipterocarp forests.
Assessor: World Conservation Monitoring Centre  Refs: 1766, 3597

Horsfieldia carnosa
Myristicaceae  LR/nt
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak) Restricted to lowland areas of Borneo, this is a small tree that grows in heath forest, wet *kerangas forest, peat-swamp forest and Agathis-Casuarina forest.
Assessor: World Conservation Monitoring Centre  Refs: 319, 1766

Horsfieldia clavata
Myristicaceae  VU D2
Papua New Guinea A shrub or small tree which, although locally common, has been collected only three times from tall lowland forest on well-drained soils in the Northern Province.
Assessor: World Conservation Monitoring Centre  Refs: 18674

Horsfieldia coriacea
Myristicaceae  LR/nt
Indonesia (Sulawesi) Endemic to central Sulawesi, the species is restricted to primary and disturbed forest on ultrabasic soil.
Assessor: World Conservation Monitoring Centre  Refs: 3597

Horsfieldia crassifolia
Myristicaceae  LR/nt
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Singapore A lowland tree which is fairly widespread in marshy forest and freshwater peat-swamp forest.
Assessor: World Conservation Monitoring Centre  Refs: 319, 9199

Horsfieldia crux-melitensis
Myristicaceae  DD
Papua New Guinea A small tree or shrub, which is restricted to mixed lowland rainforest in Morobe Province. It has been collected only six times.
Assessor: World Conservation Monitoring Centre  Refs: 18674

Horsfieldia decavata
Myristicaceae  VU D2
Indonesia (Moluccas) A lowland forest tree known from single collections from each of the following islands: Morotai, Halmahera, Ceram and Ambon.
Assessor: World Conservation Monitoring Centre  Refs: 17232, 18674

Horsfieldia discolor
Myristicaceae  DD
Indonesia (Kalimantan), Malaysia? (Sabah?, Sarawak?) This species is known from the type collection, gathered in East Kalimantan, and from some doubtful specimens from Sabah, Sarawak and Brunei.
Assessor: World Conservation Monitoring Centre  Refs: 8148

Horsfieldia disticha
Myristicaceae  VU D2
Brunei A species of lowland rainforest, known from the type...
collection in Andulau Forest Reserve and from another specimen from Kuala Belait District.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

**Horsfieldia elongata**
Myristicaceae
VU D2
Malaysia (Peninsular Malaysia)
A small tree known only from the type collection from Fraser’s Hill.
Assessor: World Conservation Monitoring Centre
Refs: 8148

**Horsfieldia flocculosa**
Myristicaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
Endemic to Peninsular Malaysia, this tree is known only from lowland rainforest and swamp forest in Selangor, Negri Sembilan, Pahang and Johore. No recent collections have been made of this species and it is threatened by expanding settlements and logging activities.
Assessor: Chua, L.S.L.
Refs: 319, 19073, 19078

**Horsfieldia fragilis**
Myristicaceae
VU A1c
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
This tree is restricted to primary lowland dipterocarp forest and riverine forests.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

**Horsfieldia fulva**
Myristicaceae
VU A1c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A rare tree occurring in lowland rainforest up to 200m in Jambi Province, Sumatra, and Peninsular Malaysia. In Peninsular Malaysia the species is threatened by urban expansion and logging activities.
Assessor: de Wilde, W.J.J.O.
Refs: 319, 11647, 19073, 19078

**Horsfieldia glabra var. javanica**
Myristicaceae
VU D2
Indonesia (Java)
This variety is known from only two collections.
Assessor: World Conservation Monitoring Centre
Refs: 3597

**Horsfieldia glabra var. oviflora**
Myristicaceae
VU D2
Indonesia (Java)
Restricted to west and central Java, this variety has been collected just five times from submontane forest.
Assessor: World Conservation Monitoring Centre
Refs: 3597

**Horsfieldia gracilis**
Myristicaceae
VU D2
Brunei, Malaysia (Sarawak)
A small tree found only once in primary lowland forest in Sarawak. In addition, three slightly different collections have been identified as this species. They may represent intermediates between *H. paucinervis* and *H. gracilis*.
Assessor: World Conservation Monitoring Centre
Refs: 319, 2147

**Horsfieldia hellwigii var. brachycarpa**
Myristicaceae
VU D2
Papua New Guinea
This variety is known from only four collections from northern Papua New Guinea.
Assessor: World Conservation Monitoring Centre
Refs: 18674

**Horsfieldia hirtiflora**
Myristicaceae
VU D2
Indonesia (Sumatra)
A small tree which is known from just three collections from Tapanuli and the east coast.
Assessor: World Conservation Monitoring Centre
Refs: 3597, 10547

**Horsfieldia iriana**
Myristicaceae
VU D2
Indonesia (Irian Jaya)
This tree is known only from the type collection, which was gathered from a site in south-west New Guinea.
Assessor: World Conservation Monitoring Centre
Refs: 18674

**Horsfieldia iryaghedhi**
Myristicaceae
CR B1+2c
Sri Lanka
Endemic to Sri Lanka, this tree occurs in lowland wet evergreen forest and disturbed forest. It is cultivated in Singapore, Penang and Java. This species was not found during the extensive forest surveys conducted for the National Conservation Review, indicating that it is either extremely rare or possibly extinct.
Assessor: World Conservation Monitoring Centre
Refs: 15919, 17195, 19112

**Horsfieldia lancifolia**
Myristicaceae
LR/nt
Indonesia (Sulawesi)
A tree endemic to forest areas on ultrabasic soils in central and south Sulawesi. Sulawesi has the largest tract of forest over ultrabasic soils in the tropics. The nature of the soil renders it unattractive to agriculture.
Assessor: World Conservation Monitoring Centre
Refs: 10148, 18674

**Horsfieldia leptanthra**
Myristicaceae
DD
Indonesia (Irian Jaya), Papua New Guinea
This tree is known from six or seven collections from primary and secondary forest areas in Vogelkop in Irian Jaya and West Sepik in Papua New Guinea.
Assessor: World Conservation Monitoring Centre
Refs: 18674

**Horsfieldia longiflora**
Myristicaceae
VU D2
Viet Nam
Collected only five times, the species appears to be restricted to submontane evergreen forests in Annam.
Assessor: World Conservation Monitoring Centre
Refs: 15919

**Horsfieldia macilenta**
Myristicaceae
VU A1c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A rare tree found growing in lowland primary mixed dipterocarp forest and swamp forest. There are eight
collections in total.
Assessor: World Conservation Monitoring Centre
Refs: 3597

Horsfieldia macrothyrsa
Myristicaceae
LR/nt
Indonesia (Sumatra)
A small tree of submontane and riverine forest apparently restricted to Mount Sago, central and northern Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 3597, 10547

Horsfieldia moluccana var. moluccana
Myristicaceae
LR/nt
Indonesia (Moluccas)
This variety is found in well-drained forest on Obi and Morotai Islands.
Assessor: World Conservation Monitoring Centre
Refs: 18674

Horsfieldia moluccana var. pubescens
Myristicaceae
VU D2
Indonesia (Irian Jaya)
This variety is common in primary and secondary forest on limestone, so far known from four collections from the Vogelkop Peninsula.
Assessor: World Conservation Monitoring Centre
Refs: 18674

Horsfieldia moluccana var. robusta
Myristicaceae
VU D2
Indonesia (Irian Jaya)
Known from three collections from the Vogelkop Peninsula and Batanta Island, the variety grows in lowland secondary and coastal forest on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 18674

Horsfieldia montana
Myristicaceae
LR/nt
Brunei, Malaysia (Sabah, Sarawak)
A small to medium-sized tree found in montane and *kerangas* forest in northern Borneo. All the specimens from Sabah were collected from the vicinity of Mount Kinabalu and they differ from the collections from Brunei and Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

Horsfieldia motleyi
Myristicaceae
VU A1c
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
An uncommon species found throughout Borneo in primary and disturbed lowland forest up to 600m.
Assessor: de Wilde, W.J.J.O.
Refs: 319, 1766

Horsfieldia nervosa
Myristicaceae
VU D2
Malaysia (Sarawak)
To date this species is known from just two collections from primary forest in the First Division of Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

Horsfieldia obscura
Myristicaceae
VU D2
Indonesia (Kalimantan), Malaysia? (Sarawak?)
A species restricted to East Kalimantan (two collections). It grows in lowland dipterocarp forest and in ridge forest on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

Horsfieldia obscurineria
Myristicaceae
EN B1+2c
Philippines
A small tree restricted to Luzon, where it has been collected just three times.
Assessor: World Conservation Monitoring Centre
Refs: 18674

Horsfieldia obtusa
Myristicaceae
DD
Malaysia (Sarawak)
This species is known from a single herbarium specimen collected from Sarawak. Nothing is known of its ecology or the specific location of the collection.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

Horsfieldia oligocarpa
Myristicaceae
LR/nt
Brunei, Malaysia (Sarawak)
A tree of *kerangas* and forest on poor soils confined to Sarawak and Brunei up to 50m.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597, 19078

Horsfieldia pachyrachis
Myristicaceae
VU D2
Indonesia (Kalimantan)
A tree known only from the type specimen, which was collected in Bukit Kelawai in West Kalimantan in 1939. The area is relatively unexplored.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

Horsfieldia palauensis
Myristicaceae
LR/nt
Palau
This tree is locally common in primary lowland forest and is found only on the Palau Islands.
Assessor: World Conservation Monitoring Centre
Refs: 18674

Horsfieldia pallidicaula var. macrocarya
Myristicaceae
VU D2
Malaysia (Sarawak)
A variety found in lowland mixed dipterocarp forest and known from just two collections.
Assessor: World Conservation Monitoring Centre
Refs: 319

Horsfieldia pallidicaula var. microcarya
Myristicaceae
VU D2
Indonesia? (Kalimantan?), Malaysia (Sabah)
This variety is known only from the type collected in lowland forest in west Sabah and one other dubious collection from East Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 319
**Horsfieldia pallidicaula var. pallidicaula**
Myristicaceae  
VU A1c
Indonesia? (Kalimantan?), Malaysia (Sabah, Sarawak)
A variety found in primary lowland and lower montane forests in Sarawak and west Sabah. The collection from West Kalimantan is doubtful.
Assessor: World Conservation Monitoring Centre
Refs: 319

**Horsfieldia pandurifolia**
Myristicaceae  
EN B1+2c
China (Yunnan)
Endemic to southern Yunnan, occurring in Mengling, Xishuangbanna and Gengma, the species is scattered sparsely in lowland monsoon forest. Most of the range is contained within nature reserves. Overcollection of the seeds, which provide a commercial oil, and of the timber have caused declines in population numbers, particularly in the number of fertile female trees.
Assessor: Sun, W.
Refs: 1818, 11847, 19005, 19055

**Horsfieldia paucinervis**
Myristicaceae  
VU D2
Malaysia (Sarawak)
A small slender tree apparently endemic to Sarawak and known from just four collections. It grows in coastal *kerangas* and secondary forest on eroded white sand.
Assessor: World Conservation Monitoring Centre
Refs: 319, 1766

**Horsfieldia penangiana ssp. obtusifolia**
Myristicaceae  
VU D2
Indonesia (Kalimantan), Malaysia (Sarawak)
This subspecies is known from four collections from Borneo. It is found in forest on hills and ridges.
Assessor: World Conservation Monitoring Centre
Refs: 2147

**Horsfieldia penangiana ssp. penangiana**
Myristicaceae  
VU A1c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A tree found in primary dry montane forest. It is known from seven collections from Peninsular Malaysia and Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 2147

**Horsfieldia perangusta**
Myristicaceae  
VU D2
Malaysia (Peninsular Malaysia)
A small slender tree known only from the type collection from the Ulu Endau Forest Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 2147

**Horsfieldia polysperula var. maxima**
Myristicaceae  
VU A1c
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
This variety is found in lowland mixed forest in Sarawak, Sabah and East Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 3597

**Horsfieldia pulcherrima**
Myristicaceae  
VU D2
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A rare tree of lowland primary forest and swamp forest.

It is known from five collections from Pahang and Johore and from a single sterile collection from Jambi, Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 319

**Horsfieldia punctata**
Myristicaceae  
VU D2
Malaysia (Peninsular Malaysia)
This species is apparently endemic to the Cameron Highlands, from where it has been collected three times in areas of lower montane forest on granite and in ridge forest.
Assessor: World Conservation Monitoring Centre
Refs: 3597, 15919

**Horsfieldia reticulata**
Myristicaceae  
LR/nt
Indonesia (Kalimantan), Malaysia (Sarawak)
This lowland forest tree occurs throughout much of Borneo, although it has not yet been collected in Sabah.
Assessor: World Conservation Monitoring Centre
Refs: 319, 1766

**Horsfieldia rufo-lanata**
Myristicaceae  
VU D2
Brunei, Malaysia (Sabah, Sarawak)
Found in upper dipterocarp forest, the species has been collected just four times from Sarawak and Sabah.
Assessor: World Conservation Monitoring Centre
Refs: 319, 1766

**Horsfieldia sabulosa**
Myristicaceae  
VU D2
Brunei, Malaysia (Sabah, Sarawak)
A tall tree found in lowland mixed forest, *Agathis* forest and ridge forest with a restricted distribution. No recent collections have been made.
Assessor: de Wilde, W.J.J.O.
Refs: 319, 1766, 19078

**Horsfieldia samarensis**
Myristicaceae  
VU D2
Philippines
This small tree is known only from the type, which was collected on Samar Island.
Assessor: World Conservation Monitoring Centre
Refs: 18674

**Horsfieldia sepikensis**
Myristicaceae  
VU D2
Papua New Guinea
A tree found in both primary and secondary forest. So far it is only known from three collections from East Sepik Province.
Assessor: World Conservation Monitoring Centre
Refs: 18674

**Horsfieldia sessilifolia**
Myristicaceae  
CR A1c, B1+2c
Malaysia (Sarawak)
Collected only once in 1971 from a threatened swamp forest in Sarawak. Most of the peat-swamp forest in Sarawak has been licensed for timber extraction.
Assessor: World Conservation Monitoring Centre
Refs: 319, 1766, 3597, 18088
**Horsfieldia sparsa**
Myristicaceae
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore, Thailand
An uncommon tree found in both primary and secondary dryland forest, as well as periodically inundated forest up to 350m. It is relatively widely distributed in Peninsular Malaysia, but known only from a single collection in Peninsular Thailand, two collections from northern Sumatra and one from Singapore.
Assessor: de Wilde, W.J.J.O.
Refs: 319, 9199

**Horsfieldia splendida**
Myristicaceae
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A species, endemic to Borneo, found in lowland mixed dipterocarp forest, *kerangas* forest and montane forest usually below 600m but occasionally found at altitudes up to 1500m. The species has not been collected recently.
Assessor: de Wilde, W.J.J.O.
Refs: 319, 1766, 19078

**Horsfieldia squamulosa**
Myristicaceae
Papua New Guinea
A locally common understorey shrub or small tree restricted to the Western Province and known only from three collections.
Assessor: World Conservation Monitoring Centre
Refs: 8148

**Horsfieldia sterilis**
Myristicaceae
Malaysia (Sabah)
Locally endemic to Tawau, this small tree or shrub is known only from four specimens.
Assessor: World Conservation Monitoring Centre
Refs: 319, 1766

**Horsfieldia subalpina ssp. kinabaluensis**
Myristicaceae
Malaysia (Sabah, Sarawak?)
This subspecies is found in montane forest on Mount Kinabalu and the surrounding area. A collection which is doubtfully this species was taken from east Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 3597

**Horsfieldia subtilis var. rostrata**
Myristicaceae
Papua New Guinea
A variety of mossy montane forest, known only from the type collection from Etappenberg, Sepik Province.
Assessor: World Conservation Monitoring Centre
Refs: 18674

**Horsfieldia sucosa ssp. bifissa**
Myristicaceae
Indonesia (Kalimantan), Malaysia (Sabah)
A subspecies found in lowland forest and Shorea loreifolia forest in east Sabah and east and south Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 319

**Horsfieldia superba**
Myristicaceae
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore
A tree scattered in lowland, hill and swamp forest. This species has not been collected recently and it is threatened by increasing settlement and logging of the area.
Assessor: Chua, L.S.L.
Refs: 319, 9199, 17140, 19073, 19078

**Horsfieldia talaudensis**
Myristicaceae
Indonesia (Sulawesi)
A tree collected four or five times in old forest at low altitudes on mountain slopes in the Talaud Islands. There is a collection from mainland Sulawesi, but it is held in some doubt.
Assessor: World Conservation Monitoring Centre
Refs: 4329, 18674

**Horsfieldia tenuifolia**
Myristicaceae
Malaysia (Sabah, Sarawak)
An understorey tree of lowland dipterocarp forest restricted to the Beaufort Hill and Jesselton in Sabah and the First Division of Sarawak.
Assessor: de Wilde, W.J.J.O.
Refs: 1766, 3597

**Horsfieldia tomentosa**
Myristicaceae
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore?, Thailand
A tree of lowland and hill forest found up to 300m.
Assessor: de Wilde, W.J.J.O.
Refs: 319, 9199

**Horsfieldia triandra**
Myristicaceae
Indonesia (Sumatra)
A tree known from two collections in central and south Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 319, 10547

**Horsfieldia tristis**
Myristicaceae
Indonesia (Kalimantan, Sumatra), Malaysia (Sarawak)
A species known from five localities in lowland forest.
Assessor: World Conservation Monitoring Centre
Refs: 319

**Horsfieldia tuberculata var. crassivalva**
Myristicaceae
Papua New Guinea
A subcanopy tree known from three or four collections from Misima, Tagula and Rossel Islands. The collection from San Cristobal is doubtful.
Assessor: World Conservation Monitoring Centre
Refs: 18674

**Horsfieldia urceolata**
Myristicaceae
Papua New Guinea
A small tree or shrub which has been collected two or three times from lowland primary rainforest.
Assessor: World Conservation Monitoring Centre
Refs: 8148
**Horsfieldia valida**  
Myristicaceae  
VU D2  
Indonesia (Kalimantan?, Sumatra)  
This tree is known from five collections taken from primary and ravine forest on the east and west coast of Sumatra. A collection, which is only doubtfully this species, was taken from Mount Daneces, West Kalimantan.  
Assessor: World Conservation Monitoring Centre  
Refs: 3597, 10547

**Horsfieldia xanthina ssp. macrophylla**  
Myristicaceae  
VU D2  
Malaysia (Sabah, Sarawak)  
Only three collections of this montane forest species are known, two from east Sarawak and one from Mount Kinabalu, Sabah.  
Assessor: World Conservation Monitoring Centre  
Refs: 3597

**Horsfieldia xanthina ssp. xanthina**  
Myristicaceae  
VU D2  
Malaysia (Sarawak)  
This subspecies is known from only four collections from Mount Dulit, Sarawak.  
Assessor: World Conservation Monitoring Centre  
Refs: 1766, 3597

**Hortonia angustifolia**  
Monimiaceae  
CR B1+2c  
Sri Lanka  
A tree restricted to lowland rainforest in south-west Sri Lanka. Previously the species was found at a single locality within Sinharaja Biosphere Reserve. However, it was not found during the extensive forest surveys conducted for the National Conservation Review, indicating that it is either extremely rare or possibly extinct.  
Assessor: World Conservation Monitoring Centre  
Refs: 9176, 17195, 19112

**Howea belmoreana**  
Palmae  
VU D2  
Australia (New South Wales - Lord Howe Is.)  
A palm tree, endemic to Lord Howe Island, found in lowland and submontane moist forest between 100 and 300m. A valuable ornamental, the seeds of wild trees are collected and germinated, and the seedlings are exported. The seed industry is strictly regulated. Lord Howe Island is a World Heritage Site, most of which is a permanent park reserve.  
Assessor: Johnson, D.  
Refs: 19118

**Howea forsteriana**  
Palmae  
VU D2  
Australia (New South Wales - Lord Howe Is.)  
A palm tree endemic to Lord Howe Island, a World Heritage Site. It occurs in lowland and submontane moist forest up to 300m. The seeds of wild trees are collected and germinated, and the seedlings are exported. The seed industry is strictly regulated.  
Assessor: Johnson, D.  
Refs: 19118

**Huberodendron patinoi**  
Bambaceae  
VU C1  
Colombia, Ecuador, Panama?  
The species occurs in forest types of varying humidity. There is an unconsolidated report that the species has been found in Panama. Otherwise populations are confined to Chocó, Córdoba, Valle del Cauca and other parts of Colombia and also Ecuador. Population numbers do not appear to be large and much of the habitat is under threat from increasing settlement, logging and agriculture.  
Assessor: Mitré, M.  
Refs: 16772

**Huertia cubensis**  
Staphyleaceae  
VU B1+2c  
Cuba, Dominican Republic, Haiti  
A rare tree found in the remaining stands of semi-deciduous forest on limestone-derived soils. Its habitat has been severely degraded in most places in Cuba. It is infrequently found on Hispaniola.  
Assessor: Areces-Mallea, A.E.  
Refs: 19149

**Huilea macrocarpa**  
Melastomataceae  
EN B1+2c  
Colombia  
An endemic to Magdalena.  
Assessor: Calderon, E.  
Refs: 19069

**Huilea minor**  
Melastomataceae  
EN B1+2c  
Colombia  
An endemic species known to occur in Santander and possibly also Boyaca.  
Assessor: Calderon, E.  
Refs: 19069

**Huilea mutisiana**  
Melastomataceae  
EN B1+2c  
Colombia  
Endemic to Colombia, the species is recorded from Boyaca and Santander.  
Assessor: Calderon, E.  
Refs: 19069

**Huilea occidentalis**  
Melastomataceae  
VU B1+2c  
Colombia  
An endemic to Cauca.  
Assessor: Calderon, E.  
Refs: 19069

**Huilea pendulisflora**  
Melastomataceae  
EN B1+2c  
Colombia  
An endemic to Huila.  
Assessor: Calderon, E.  
Refs: 19069

**Humboldtia bourdillonii**  
Leguminosae  
EN B1+2c  
India (Kerala, Tamil Nadu)  
Collections of the species were made at the turn of the century from Peermade and Courtallum at the southern
end of the Western Ghats. There do not appear to be any more recent records and there is concern that extensive forest clearance and the spreading cultivation of cardamom have caused serious declines in population numbers.

Assessor: World Conservation Monitoring Centre
Refs: 2538, 19144

**Humboldia decurrens**
Leguminosae  
India (Kerala)  
A common species of low to medium elevation evergreen forest, confined to southern parts of the Western Ghats, ranging from the Anamalai Hills to the Travancore range.

Assessor: World Conservation Monitoring Centre
Refs: 2538, 19144

**Humboldia laurifolia**
Leguminosae  
India (Kerala), Sri Lanka  
A shrub or small tree recorded from two localities in the Western Ghats and throughout Sri Lanka. In India it was originally known to occur in shady places along stream-sides up to 600m, but there have been no records of it since 1874. It appears to be fairly common in Sri Lanka, occurring in 66 forest sites according to surveys conducted for the National Conservation Review.

Assessor: World Conservation Monitoring Centre
Refs: 14276, 19112

**Humboldia unijuga var. trijuga**
Leguminosae  
India (Kerala)  
A small tree of submontane evergreen forest in the Travancore range, which is known only from the type collection dating to the 19th century.

Assessor: World Conservation Monitoring Centre
Refs: 2538, 6925, 19144

**Humboldia unijuga var. unijuga**
Leguminosae  
India (Kerala, Tamil Nadu)  
This variety is sympatric with var. trijuga, occurring in a small area of submontane forest in the Travancore range. Since the type specimen was collected in the last century, a second record of the species has been made in an area close by.

Assessor: World Conservation Monitoring Centre
Refs: 2538, 19144

**Humiriastrum melanocarpum**
Humiriaceae  
Colombia  
An endemic to Valle.

Assessor: Calderon, E.
Refs: 19069

**Hunga guillauminitii**
Chrysobalanaceae  
New Caledonia  
Assessor: Jaffré, T. et al.
Refs: 10351

**Hunga mackeeana**
Chrysobalanaceae  
New Caledonia  
Assessor: Jaffré, T. et al.
Refs: 10351

**Hunteria ghanensis**
Apocynaceae  
Ghana  
Officially this is a Ghanaian endemic but it may have been overlooked elsewhere. It is confined to extreme dry forest in the south, where the effects of human population growth and the expansion of agriculture have caused severe declines in the habitat. Most recorded occurrences are in forest which is unprotected and has since disappeared.

Assessor: Haworthoe, W.
Refs: 8369, 12061

**Huodendron parviflorum**
Styracaceae  
Viet Nam  
So far recorded only from Viet Nam, this small tree appears to be restricted to Mong Cai in Quang Ninh, on the border with China.

Assessor: World Conservation Monitoring Centre
Refs: 848

**Hydnocarpus cucurbitina**
Flacourtiaceae  
Malaysia (Peninsular Malaysia)  
Occurring in rainforest below 210m, the species is protected in Taman Negara National Park.

Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Hydnocarpus filipes**
Flacourtiaceae  
Malaysia (Peninsular Malaysia)  
A medium to large species inhabiting the moist lowland and hill forests of Terengganu, Perak, Selangor and Pahang.

Assessor: Chua, L.S.L.
Refs: 17140, 19073

**Hydnocarpus hainanensis**
Flacourtiaceae  
China (Guangdong - Hainan, Guangxi), Viet Nam  
A tree of monsoon forest occurring at low elevation in mountainous regions. The Chinese population is largely found on Hainan Island, where levels of deforestation at this altitude have been very high. In Viet Nam there has also been extensive declines in the habitat and the species is reported to be regenerating poorly. The timber is used in industry and agriculture.

Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 15357

**Hydnocarpus humei**
Flacourtiaceae  
Malaysia (Peninsular Malaysia)  
A small tree known from only two collections in
lowland open quartzite forest in Larut, Perak, and Klang Gates, Selangor. 

**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Hydnocarpus kurzii**  
Flacourtiaeae  
India, Myanmar  
Information from India indicates the species has declined by 50% in population numbers in the last 10 years. Fewer than 20 locations are known in northeastern India, where the species is found in areas of evergreen forest between 200 and 800m. Oil is harvested from the fruits and traded locally. More information is needed on the population status in Myanmar.  
**Assessor:** CAMP Workshops on Medicinal Plants in India  
**Refs:** 19209

**Hydnocarpus macrocarpa ssp. macrocarpa**  
Flacourtiaeae  
India (Kerala, Tamil Nadu)  
The main concentration of populations occurs near Muthuuzhiyaval in evergreen hill forest. Large areas of forest have been destroyed for the Kodayar Hydroelectric Project and also for the establishment of plantation crops. Outlying populations exist further north towards Anamalai. Fruits have been overcollected.  
**Assessor:** CAMP Workshops on Medicinal Plants in India  
**Refs:** 561, 4799, 5651, 19144

**Hydnocarpus nana**  
Flacourtiaeae  
Malaysia (Peninsular Malaysia)  
A shrub or small tree of lowland and hill rainforest. Populations are found in Selangor and Terengganu, where they are protected within the boundaries of Taman Negara National Park.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Hydnocarpus octandra**  
Flacourtiaeae  
Sri Lanka  
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8203, 17195

**Hydnocarpus scortechinii**  
Flacourtiaeae  
Malaysia (Peninsular Malaysia)  
A primary lowland forest species, found in two coastal localities in Peninsular Malaysia. Increasing tourism and settlement in the vicinity are the main pressures faced by the species.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Hydrochorea acerana**  
Leguminosae  
Brazil (Acre)  
A tree known from non-inundated Amazonian forest in Acre. Until the fruit is discovered, there will be some doubt as to the taxonomic placement of the species.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Hydrochorea marginata var. scheryi**  
Leguminosae  
Venezuela  
A small tree or shrub so far found only along the Orinoco River between Pto Ayacucho and Sanariapo, Amazonas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Hyeronima clusioides**  
Euphorbiaceae  
Puerto Rico  
A species of moist hills and mountain forests in central and western Puerto Rico. The wood is good quality and used as lumber.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7931, 7980

**Hyeronima jamaicensis**  
Euphorbiaceae  
Jamaica  
An uncommon tree, confined to moist woodlands on limestone between 700 and 900m in St Andrew, Clarendon, St Ann and Portland Parishes. The loss of habitat has been particularly severe in St Andrew.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980, 19116

**Hymenaea torrei**  
Leguminosae  
Cuba  
A tall shrub or tree restricted to the dry evergreen forests and dry lowland shrubwoods of eastern Cuba. Habitat declines have been considerable in both communities; logging activities, agriculture and urban development are resulting in land clearance and habitat degradation.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 9522, 11403, 19149

**Hymenostegia aubrevillei**  
Leguminosae  
Côte d'Ivoire, Ghana, Nigeria  
In Ghana this species occurs in the region of the Krokosua Hills. It is also known in upland evergreen forest on the other side of the Dahomey Gap and in Côte d'Ivoire. Farming, fire, forest management and mining are causes of habitat decline.  
**Assessor:** Hawthorne, W.  
**Refs:** 2773, 8369, 12061

**Hymenostegia bakeriana**  
Leguminosae  
Cameroon, Nigeria  
Populations of this small forest tree are protected but confined to the Oban Division of the Cross River National Park and the adjacent Korup National Park in Cameroon. Large-scale deforestation has taken place in surrounding areas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2773, 4977, 7550, 11504

**Hymenostegia gracilipes**  
Leguminosae  
Ghana  
Endemic to Ghana, this species is rare within a restricted wet evergreen forest habitat, which has declined in

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extent because of mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

**Hymenostegia tablottii**
Leguminosae
Nigeria
A little-known species, which has been recorded only from Eket in south-east Nigeria. Oil exploration operations in this area have caused the destruction of most if not all the forest habitat.
Assessor: World Conservation Monitoring Centre
Refs: 450, 2773, 11504

**Hyophorbe amariculis**
Palmae
Mauritius
Only a single individual remains in Curepipe, south-west central Mauritius, where it is now contained within a botanical garden. It is unlikely further individuals exist in the wild. The tree is monitored regularly. Attempts at propagation have been unsuccessful. There is some likelihood of hybridisation with other *Hyophorbe* species native to the Mascarenes, which are grown in the area.
Assessor: Page, W.
Refs: 19118

**Hyophorbe indica**
Palmae
Réunion
A palm tree of moist primary forest between 175 and 600m, persisting in low numbers only. It is threatened by the expansion of agriculture and human habitation.
Assessor: Johnson, D.
Refs: 19118

**Hyophorbe lagenicaulis**
Palmae
Mauritius
A palm tree with a bottle-shaped bole, confined to lowland palm savanna on Round Island. Fewer than 10 mature trees remain in the wild. Regeneration is sporadic in situ, but is increasing since rabbits and goats were eradicated from the island. The island is a managed reserve.
Assessor: Page, W.
Refs: 19118

**Hyophorbe vaughanii**
Palmae
Mauritius
A tree of submontane evergreen forest. Only three wild individuals are known from Mare Longue Plateau, Fixon, south-west Mauritius. The seed from wild specimens has produced numerous plants, which have been re-introduced into a managed forest.
Assessor: Page, W.
Refs: 19118

**Hyophorbe verschaffeltii**
Palmae
Mauritius (Rodrigues)
Fewer than 60 individuals remain in the wild, occurring in limestone areas of Grand Montagne, Anse Quitor and Ravine de la Cascade, St Louis. There is no evidence of regeneration and grazing pressures are strong. There is also a threat of hybridisation with the introduced *H. lagenicaulis*. The species is of commercial interest as an ornamental.
Assessor: Johnson, D.
Refs: 19118

**Hyperbaena allenii**
Menispermaceae
VU C2a
Costa Rica, Panama
A lowland rainforest tree, occurring fairly commonly in the Valle de Antón area in Coclé and in populations of just a few individuals from Darién Province, close to the Colombian border in Panama, and in Puntarenas in Costa Rica. Although it is possible larger populations will be discovered, the species is poorly known in the latter two areas and under threat of habitat loss.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

**Hyperbaena jalcumulensis**
Menispermaceae
VU B1 +2c
Mexico (Veracruz)
Occurring in a range of forest types from evergreen rainforest to more deciduous forest, the species is confined to the central region of Jalcomulco, Rinconada, Plan del Río and Sierra de Manuel Diaz on karst topography. The forest is fragmented and widely disturbed. There is evidence of natural regeneration. Attempts at propagation have failed.
Assessor: World Conservation Monitoring Centre
Refs: 19206

**Hyperbaena prioriana**
Menispermaceae
LR/nt
Jamaica
Known only from central parishes, the species is confined to rocky limestone woodland.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

**Hyperbaena valida**
Menispermaceae
LR/nt
Jamaica
A species confined to coastal vegetation on limestone. It is thought to be endemic.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

**Hypericum balfourii**
Guttiferae
VU D2
Yemen (Socotra)
A shrub or small tree found in low montane shrubland and dwarf *Hypericum-Crotonopsis* shrubland. The populations are believed to be stable and under no immediate threat.
Assessor: Miller, A.G.
Refs: 2354, 19083

**Hypericum gnditfolium**
Guttiferae
VU D2
Ethiopia
A bushy tree known only from two disjunct localities beside streams, one in Wogera, on the Maye-Borha Plateau in Tigray, and another in Choa in Shewa. It has not been collected recently.
Assessor: World Conservation Monitoring Centre
Refs: 5941
Hyphaene dichotoma
Palmae
India (Gujarat, Maharashtra)
A palm tree restricted to the coastal areas of Gujarat and Maharashtra between the latitudes of 18° and 23°. The area is mainly threatened by increasing settlement and development.
Assessor: Johnson, D.
Refs: 19118

Ilex abscondita
Aquifoliaceae
VU D2
Venezuela
A shrub or low tree, which is endemic to upper montane forest on the Sierra de la Nebilha. The area is protected within a national park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex acutidenticulata
Aquifoliaceae
VU D2
Venezuela
The species is so far known from two disjunct populations both occurring in upper montane forest, one on Cerro Marahuaca and the second further south on the border with Brazil on the Sierra de la Nebilha. Both areas are contained within national parks.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex altiplana
Aquifoliaceae
LR/nt
Venezuela
Endemic to the Gran Sabana within Canaima National Park, the species is found in riparian forest on sandstone plateaux. The tourism industry is rapidly growing, with some damaging consequences.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex anonoides
Aquifoliaceae
VU D2
Peru
This species is known only from the type collection from the department of Puno.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ilex aracamuniana
Aquifoliaceae
VU D2
Venezuela
A tree so far only known from a restricted zone of semi-open montane forest on Cerro Aracamuni in Amazonas. The area is protected within a national park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex arisanensis
Aquifoliaceae
EN B1+2b
Taiwan
The species is restricted to the Arishan area, where it is scattered in mixed evergreen forest between 1500 and 2200m. Populations are unprotected and the area susceptible to forest management activities and expanding settlement.
Assessor: Pan, F.J.
Refs: 3295, 6469, 19050

Ilex attenuata
Aquifoliaceae
VU D2
Brazil (Amazonas)
So far the species has been found in only a small area of montane forest in the Serra Pirapuã in Brazil, near the Venezuelan border.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex brevipedicellata
Aquifoliaceae
VU D2
Venezuela
Occurring in montane forest bordering streams between 1100 and 1200m, the species is known from Cerro Marahuaka in Amazonas. The area is contained within a national park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex canariensis
Aquifoliaceae
LR/nt
Portugal (Madeira), Spain (Canary Is.)
Occurring sporadically but in local abundance, the species is found mainly at lower altitudes in scrub and *laurisilva. The latter habitat type may be increasing in Madeira, but throughout much of the range there are pressures, particularly from grazing and fires. Populations occur within protected areas.
Assessor: World Conservation Monitoring Centre
Refs: 19131

Ilex caniensis
Aquifoliaceae
VU D2
Peru
A species which is known only from the type collection found in the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ilex ciliolata
Aquifoliaceae
LR/nt
Venezuela
The species is endemic to Bolívar, where it occurs in semi-deciduous to evergreen submontane forest in an area stretching from El Paují to Uaipará near Kavanayén.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex cookii
Aquifoliaceae
CR C2a, D1
Puerto Rico
A small tree of cloud forest, known from a single tree with four root sprouts on Cerro de Punta and a few small plants and seedlings scattered along ridge tops on Monte Jayuya in Toro Negro State Forest. The construction of communication towers is likely to have destroyed a large part of the original population on Cerro de Punta. Further development, road building and trampling threaten remaining plants. The species is thought to be dioecious, although male flowers have never been observed. It is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 17124, 19167

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Ilex costaricensis
Aquifoliaceae
VU A2c
Costa Rica, Nicaragua, Panama
A species of evergreen moist montane forest or cloud forest. The largest populations are in the Cordillera de Talamanca between west Panama and east Costa Rica, where they are contained entirely within protected areas. Other smaller populations exist elsewhere, including one in the Volcán Mombacho in Nicaragua. In most of these sites the species is locally abundant. Unprotected forest is under some threat from logging and encroaching agriculture.
Assessor: Mitré, M.
Refs: 7272, 14487, 16772

Ilex cowanii
Aquifoliaceae
VU D2
Venezuela
Known only from Cerro Huachamacari in Amazonas, the species occurs in a site of dense montane forest along a creek at about 1800m. The area is contained within Duida Marahuaca National Park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex davidsei
Aquifoliaceae
LR/nt
Venezuela
A slender tree, found only in the Río Pasimoni basin in Amazonas State, where it occurs in periodically flooded riparian forest.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex ericoides
Aquifoliaceae
VU D2
Peru
A tree which is known only from the type collection from the department of Puno.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ilex florifera
Aquifoliaceae
VU B1+2c
Jamaica
A tree confined to areas of woodland on limestone in St Ann Parish.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Ilex gardneriana
Aquifoliaceae
EX
India (Tamil Nadu)
This species is known only from the type collection made in 1859 from *shola forest on Sispara Ghat in the Nilgiri Hills. The area has been repeatedly explored but no specimens have been found in the last few decades.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

Ilex glabella
Aquifoliaceae
VU D2
Venezuela
Endemic to the Sierra de la Neblina, the species occurs on forested slopes along streams between 700 and 800m. The area is protected within a national park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex gleasoniana
Aquifoliaceae
LR/nt
Venezuela
A shrub or small tree, which is found in dwarf forests on *tepui summits, namely Cerro Coro Coro, Cerro Duida and Cerro Marahuaka in Amazonas. The latter two are contained within a national park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex grandiflora
Aquifoliaceae
VU D2
Malaysia (Peninsular Malaysia)
A species of seasonally dry evergreen forest, occurring between 700 and 900m on Cerro Guaiquinima in Bolívar State.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex harrisii
Aquifoliaceae
LR/nt
Jamaica
A montane woodland species found in the Blue Mountains, sometimes in abundance, on the Grand Ridge and on steep slopes in the headwaters of the Clyde, Green and Mabess Rivers.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 12564

Ilex holstii
Aquifoliaceae
VU D2
Venezuela
A species which is very similar to *oliveriana and may prove to be conspecific. It is known only from a restricted area of submontane forest on Cerro Marahuaka in Amazonas State. The Duida Marahuaka National Park covers the locality.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex huachamacariana
Aquifoliaceae
LR/nt
Venezuela
A shrub or tree of shrubby meadows and dwarf riparian and mossy forest, generally on sandy soils. Disjunct populations, both of which are protected within national parks, are known from Auyan-tepui in Bolívar, and Cerro Huachamacari in Amazonas. The former may prove to be a distinct taxon.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex ignicola
Aquifoliaceae
LR/nt
Venezuela
Occurring on Serranía de los Pijiguao in Bolívar State and Cerro Aratitiyope in Amazonas State, the species is
Ilex illudris
Aquifoliaceae
Sensitive
Malaysia (Peninsular Malaysia)
A shrub or small tree inhabiting rainforest up to 2000m in Pahang, Terengganu and Perak. A protected population is found in Taman Negara National Park.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Ilex jamaicensis
Aquifoliaceae
Sensitive
Jamaica
A rare tree, occurring in moist mossy mountain forest in Jamaica, with a recently discovered population at a lower altitude above Ecclesdown. The vegetation has been heavily cleared for agriculture and forestry activities.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Ilex jelskii
Aquifoliaceae
Sensitive
Peru
A species which is known only from the type collection from the department of Cajamarca.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ilex kauaiensis
Aquifoliaceae
Sensitive
Venezuela
A small tree of montane riparian forest, occurring on Cerro Iaua and Serrania Maruntan in Bolivar State. The former is contained within a national park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex karauiana
Aquifoliaceae
Sensitive
Venezuela
Occurring in dense riparian forest and semi-deciduous evergreen forest on sandstone, the species appears to be endemic to the lower slopes of Piar-tepuu, near Rio Carauy in Canaima National Park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex khasiana
Aquifoliaceae
Endangered
India (Meghalaya)
An endemic of the Khasi Hills, occurring in mixed evergreen forest between 1000 and 1500m. Only three of four trees are known, confined to Shillong Peak. Regeneration is reported to be poor and the habitat has declined in extent and quality.
Assessor: CAMP Workshops on Medicinal Plants in India
Refs: 7147, 19209

Ilex lasserri
Aquifoliaceae
Sensitive
Venezuela
Known only from the vicinity of Kavanayen, the species is found on slopes in semi-deciduous and evergreen forest.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex lechleri
Aquifoliaceae
Vulnerable
Peru
A species which is known only from the type collection from the department of Puno.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ilex magniflora
Aquifoliaceae
Sensitive
Venezuela
The species is known from localities of gallery forest or semi-deciduous to evergreen forest up to 1800m on Cerro Pari, Cerro Ualipano, Cerro Yutajé, Río Coro Coro and Río Pancito in Amazonas State.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex maingayi
Aquifoliaceae
Vulnerable
Malaysia (Peninsular Malaysia)
A small tree inhabiting lowland forest in swampy (peat swamp or the edge of mangroves), limestone areas (e.g. in Gopeng). The species is widely distributed along the west coast and in the south.
Assessor: Chua, L.S.L.
Refs: 7673, 8464, 19128, 17140, 19073

Ilex marahaeae
Aquifoliaceae
Sensitive
Venezuela
The species is endemic to montane slope forest on Cerro Huachamacari and Cerro Marahuaka in Amazonas State. Both areas are contained within Duida Marahuaka National Park.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex marginata
Aquifoliaceae
Sensitive
Venezuela
A shrub or tree of dwarf cloud forest and Bonnetia shrublands, occurring on Auyán-tepui and Macizo del Chimanté in Bolivar State. Both areas are contained within Canaima National Park. Tourism is a rapidly growing industry with some damaging consequences.
Assessor: World Conservation Monitoring Centre
Refs: 19128

Ilex mathewsii
Aquifoliaceae
Vulnerable
Peru
A species which is known only from the type collection from the department of Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ilex mitis var. schliebenii
Aquifoliaceae
Vulnerable
Tanzania
A distinct variant of a widely distributed and variable montane tree. It is localised on forested ridge tops in the Uluguru Mountains and on the Lukwangule Plateau.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5204, 13207
**Ilex neblinensis**
Aquifoliaceae  
VU D2  
Brazil (Amazonas), Venezuela  
A shrub or tree, endemic to the Sierra de la Neblina on the Venezuela–Brazilian border, where it is found on steep forested slopes along sandstone escarpments. The area is protected within a national park.  
Assessor: World Conservation Monitoring Centre  
Refs: 19128

**Ilex palawanica**
Aquifoliaceae  
VU B1+2c, D2  
Philippines  
An endemic tree to Palawan, occurring in dense thickets on exposed ridges of Mount Pulgar at about 1200m. The main island is a biosphere reserve.  
Assessor: World Conservation Monitoring Centre  
Refs: 4986

**Ilex pallida**
Aquifoliaceae  
VU B1+2bd  
Costa Rica, Nicaragua, Panama  
A species of high-altitude cloud forest, occurring between 2000 and 3000m or higher. Populations are rare and isolated. Regeneration appears to be good and large fruit crops are reported. Most of the areas which the species occupies are under protection within national parks. However, there are increasing threats of habitat clearance for agriculture and logging.  
Assessor: Mitré, M.  
Refs: 7272, 14487, 16772

**Ilex paraguariensis**
Aquifoliaceae  
LR/nt  
Argentina, Bolivia, Brazil (Rio Grande do Sul, Santa Catarina), Colombia, Ecuador, Paraguay, Uruguay  
An understorey tree of mixed *Araucaria* forest, occurring in the subtropical and temperate regions of South America. For centuries the leaves have been used to make a tonic and stimulant drink. The rates of exploitation, in some areas, are believed to have caused a significant decline in population numbers. Plantations have been set up, but the demand for leaves is still, apparently, greater than the supply from cultivated stands.  
Assessor: World Conservation Monitoring Centre  
Refs: 4506, 7906, 9173, 11374, 11936

**Ilex parviflora**
Aquifoliaceae  
VU D2  
Venezuela  
A shrub or tree of broadleaved meadows and riparian montane forests between 1600 and 1700m on Cerro Guaquinimina in Bolívar State. It is similar to and may be conspecific with *I. styriemarkii*.  
Assessor: World Conservation Monitoring Centre  
Refs: 19128

**Ilex patens**
Aquifoliaceae  
LR/ed  
Malaysia (Peninsular Malaysia)  
A small tree of montane and submontane rainforest in Pahang, kedah and Selangor. It is protected in Taman Negara National Park and within the permanent forest estate.  
Assessor: Chua, L.S.L.  
Refs: 8464, 19073

**Ilex pauciflora**
Aquifoliaceae  
EN D1  
Malaysia (Peninsular Malaysia)  
A small tree confined to the hill forest of Penang Hill, Penang.  
Assessor: Chua, L.S.L.  
Refs: 18840, 19073

**Ilex paujensis**
Aquifoliaceae  
LR/nt  
Venezuela  
A small tree of savanna and forest margins, found in the Río Icabári basin and along Río Paragua at the base of Cerro Guaquinimina.  
Assessor: World Conservation Monitoring Centre  
Refs: 19128

**Ilex perado ssp. azorica**
Aquifoliaceae  
LR/nt  
Portugal (Azores)  
A subspecies endemic to the Azores, where it is one of the dominant components of remaining laurel forest on all the islands, except Graciosa. On Corvo only one specimen has been reported and the population on Santa Maria is under threat.  
Assessor: World Conservation Monitoring Centre  
Refs: 7222, 19131

**Ilex perado ssp. iberica**
Aquifoliaceae  
CR B1+2de  
Portugal, Spain  
A species occurring within a restricted area of the Sierras de Algeciras in the south of Spain, where it is largely confined to forest patches in humid ravines and inaccessible places. It is possibly also found in Portugal. Of the various threats to the remaining plants, fire appears to be the most significant. The Cordoba Botanic Garden is carrying out work on the wild populations in order to determine their status and to establish the species in cultivation.  
Refs: 7741

**Ilex perado ssp. lopezilloi**
Aquifoliaceae  
CR C2a, D1  
Spain (Canary Is.)  
This species is restricted to just two populations in cloud forest in Garajonay National Park on Gomera, both consisting of very few individuals. A recovery plan has been devised and the species is listed in government legislation of 1991.  
Refs: 8716, 19022

**Ilex perado ssp. perado**
Aquifoliaceae  
LR/nt  
Portugal (Madeira)  
Endemic to Madeira, this is a common tree of *Laurus* and forest at higher altitudes. There is evidence to suggest that *Laurus* is expanding. The taxon occurs within protected areas and is also covered by regional legislation.  
Assessor: World Conservation Monitoring Centre  
Refs: 7222, 19131

**Ilex perado ssp. platyphylla**
Aquifoliaceae  
VU C2a  
Spain (Canary Is.)  
A cloud forest species confined to parts of Tenerife and...
Ilex polita
Aquifoliaceae  LR/nt
Venezuela
A shrub or tree which occurs in forest and shubby savanna on tepui summits and slopes in several localities in Bolivar State.
Assessor: World Conservation Monitoring Centre  Refs: 19128

Ilex praeterrima
Aquifoliaceae  VU B1+2c
Malaysia (Peninsular Malaysia)
Known from only one locality, this uncommon shrub or small tree inhabits quartzite ridge in the hill forest of Selangor.
Assessor: Chua, L.S.L.  Refs: 19073

Ilex puberula
Aquifoliaceae  VU B1+2c
Jamaica
This species is found in exposed montane thickets and woodland on steep slopes, 1200 to 1500m, in St Andrew and Portland Parishes. Disturbance and clearing of the habitat has been extensive but mostly at lower altitudes in more accessible sites.
Assessor: World Conservation Monitoring Centre  Refs: 401, 5653

Ilex quercetorum
Aquifoliaceae  VU A1c
Guatemala, Mexico (Chiapas)
A montane forest tree, occurring in oak forest and mesophyllous formations. It is known mainly from the populations in Guatemala but also occurs in the northern mountains of Chiapas, where the species is considered to be vulnerable.
Assessor: World Conservation Monitoring Centre  Refs: 4974, 19161

Ilex savannarum var. morichei
Aquifoliaceae  VU D2
Venezuela
Endemic to Cerro Moriche in Amazonas State, the variety occurs in shrublands and broadleaved meadows between 1200 and 1300m.
Assessor: World Conservation Monitoring Centre  Refs: 19128

Ilex savannarum var. savannarum
Aquifoliaceae  LR/nt
Venezuela
This variety is known from areas of white-sand savanna, bordering streams or forests or in shrub islands. Occurrences have been recorded from Caño Yaguas and the basins of Río Atabapo, Río Guainia and Río Pasimoni in Amazonas State.
Assessor: World Conservation Monitoring Centre  Refs: 19128

Ilex sclerophylla
Aquifoliaceae  LR/cd
Malaysia (Peninsular Malaysia)
A small tree which is distributed rarely in montane rainforest on Gunung Ledang in Johore and Ulu Brang in Terengganu. Populations receive a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.  Refs: 8464, 19073

Ilex sessiliflora
Aquifoliaceae  LR/nt
Venezuela
A shrub or tree which occurs in savannas and submontane forest in the Río Erebato basin in Bolivar State and in the Sierra de la Neblina in Amazonas State. The latter is contained within a national park.
Assessor: World Conservation Monitoring Centre  Refs: 19128

Ilex sideroxylonoides var. occidentalis
Aquifoliaceae  LR/nt
Jamaica, Puerto Rico
In Jamaica the variety occurs in thickets and woodlands in the eastern parishes and also Clarendon.
Assessor: World Conservation Monitoring Centre  Refs: 6057, 7980

Ilex sintenisii
Aquifoliaceae  EN C2a, D1
Puerto Rico
Occurring in dwarf or elfin forest on mountain summits, the species is known only from a restricted area of the Luquillo Mountains within Toro Negro State Forest. A total of 150 individuals exist within three populations. The forest has been cut through various forest management activities and also in the development of communication facilities. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre  Refs: 7980, 17124, 19167

Ilex sipapoana
Aquifoliaceae  LR/nt
Venezuela
A montane forest and shrubland species, occurring in a locality east of Los Pijiguao in Bolivar State and elsewhere on Cerro Guanay and Cerro Sipapo in Amazonas State.
Assessor: World Conservation Monitoring Centre  Refs: 19128

Ilex spruceana
Aquifoliaceae  LR/nt
Venezuela
A lowland shrub or tree, which occurs in white-sand savannas on exposed igneous rock and in riparian forest in a number of localities in Amazonas State.
Assessor: World Conservation Monitoring Centre  Refs: 19128

Ilex steyermarkii
Aquifoliaceae  LR/nt
Venezuela
The species may prove to be conspecific with I. poriflora. It is known from Bolívar State, where it occurs in forest from mid to high elevation at the base of sandstone escarpments, such as those on Auyán-tepui,
Gran Sabana and Toronó-tepui in Macizo del Chimantá. Much of the range is contained within a national park. **Assessor:** World Conservation Monitoring Centre
**Refs:** 19128

*Ilex subrotundifolia*
Aquifoliaceae  
Venezuela
Known from various localities in Bolívar State, including the Gran Sabana and Macizo del Chimanát, and on Cerro Sipapo in Amazonas State, the species occurs in shrublands, swampy depressions in meadows or savannas and at the margins of gallery forest between 500 and 2200m. It is possible that the specimens from high elevations on the Macizo del Chimanát represent a distinct species. Much of the range is contained within protected areas. **Assessor:** World Conservation Monitoring Centre
**Refs:** 19128

*Ilex subtriflora*
Aquifoliaceae  
Jamaica
An extremely rare species, which is poorly known. It is confined to St Ann Parish and has not been recently collected. **Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 5653, 7980

*Ilex sulcata*
Aquifoliaceae  
Venezuela
A shrub or tree of shrubland, gallery forest and swampy depressions in meadows at mid to high elevation. Collections have been made on Auyán-tepui, Cerro Venama, Gran Sabana and Macizo del Chimanát in Bolívar State. Much of the range is contained within a national park. **Assessor:** World Conservation Monitoring Centre
**Refs:** 19128

*Ilex tahanensis*
Aquifoliaceae  
Malaysia (Peninsular Malaysia)
A montane species found on Gunung Tahan in Pahang and on Gunung Rabong in Kelantan. This small tree is protected in Taman Negara National Park and within the permanent forest estate. **Assessor:** Chua, L.S.L.
**Refs:** 8464, 19073

*Ilex tateana*
Aquifoliaceae  
Venezuela
A shrub or tree which has been collected from riparian and semi-open forest between 1400 and 1500m on Cerro Aracamuni, Cerro Duida and Sierra de la Nebíña in Amazonas State. All the localities are contained within national parks. **Assessor:** World Conservation Monitoring Centre
**Refs:** 19128

*Ilex ternatiflora*
Aquifoliaceae  
Cuba
Described in the mid-1800s, this species was apparently restricted to a single locality in Las Pozas, Pinar del Río Province. The type locality has been completely destroyed and the species has not been collected again despite thorough searches. **Assessor:** Areces-Mallea, A.E.
**Refs:** 11403, 12801, 19149

*Ilex tiricae*
Aquifoliaceae  
Venezuela
A shrub or small tree of montane thicket and riparian forest on sandstone. Collections have been made from Auyán-tepui and Macizo del Chimanát in Bolívar State, both contained within Canaima National Park. **Assessor:** World Conservation Monitoring Centre
**Refs:** 19128

*Ilex tolucana*
Aquifoliaceae  
VU A1c
Mexico
A tree of oak forest or mesophyllous montane forest, so far known only from Mexico but possibly also occurring in Guatemala. The wood is used locally as a source of fuel and timber. There is an occurrence in El Triunfo Biosphere Reserve. **Assessor:** Ramirez-Marcial, N. & M. González-Espinosa
**Refs:** 19161

*Ilex trachyphylla*
Aquifoliaceae  
Peru
A species which is known only from type collection from the department of Cajamarca. **Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

*Ilex vaccinoides*
Aquifoliaceae  
VU B1+2c
Jamaica
A locally common species, confined to primary and secondary montane forest at the headwaters of Green River in St Andrews Parish. Occurring above 1800m, the species’ habitat has largely escaped the forest destruction and degradation which have been extensive at lower altitudes. **Assessor:** World Conservation Monitoring Centre
**Refs:** 5653, 7980, 19116

*Ilex venezuelensis*
Aquifoliaceae  
LR/nt
Venezuela
Occurring in various localities in Bolívar and Amazonas States, the species is found in tepui meadows, dwarf riparian forests, forested slopes and on the edges of escarpments. **Assessor:** World Conservation Monitoring Centre
**Refs:** 19128

*Ilex venulosa*
Aquifoliaceae  
EN B1+2c
India (Arunachal Pradesh)
Endemic to the Khasi Hills, the species is known mainly from populations in Sohraim and Laatiyngkot. These areas have been drastically cleared and the species is believed to be very scarce now. **Assessor:** World Conservation Monitoring Centre
**Refs:** 7147
**Ilex vomitoria ssp. chiapensis**
Aquifoliaceae  VU B1+2c
Mexico (Chiapas)
A medicinal plant, found scattered in dry montane forest above 1500m in the high areas of Chiapas. The taxonomic status of the subspecies may need confirmation. The species is widespread in eastern North America.
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 9312, 19161

**Ilex vulcanicola**
Aquifoliaceae  VU A2c
Costa Rica, Panama
A more common species than *I. costaricensis*. Although it, too, occurs in high-altitude cloud forest, populations are also found below 1000m in Cerro Jefe and Cerro Campana in Panama. In Costa Rica, the species is reported to be abundant above 1500m, always within areas which receive some level of protection. Populations within Panama are also entirely contained within national parks or reserves. Despite this level of apparent protection, there still remain potential threats from logging and habitat clearance.
Assessor: Mitré, M.
Refs: 7272, 14487, 16772

**Ilex williamsii**
Aquifoliaceae  CR C2b
Honduras
A seldom-collected species of cloud forest.
Assessor: Nelson, C.
Refs: 8805, 13995

**Illicium kinabaluensis**
Illiciaceae  VU D2
Malaysia (Sabah)
A small tree restricted to Mount Kinabalu, where it is found in primary forest between 1200 and 2000m.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Illicium peninsulare**
Illiciaceae  LR/cd
Malaysia (Peninsular Malaysia)
A primary species of submontane rainforest, occurring between 800 and 1500m. Populations are found in a Wildlife Sanctuary and in the protective forests within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 19073

**Illicium tenuifolium**
Illiciaceae  LR/cd
Malaysia (Peninsular Malaysia), Thailand
A species of hill forest and cloud forest, scattered in Peninsular Thailand and Malaysia. Populations in Peninsular Malaysia are contained in a national park and protective forests within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 19073

**Illicium ternstroemiioides**
Illiciaceae  VU D2
China, Viet Nam
A small tree, restricted to Hainan Island in China and high mountains in north Viet Nam: Son La, Tuan Giao and Dien Bien.
Assessor: World Conservation Monitoring Centre
Refs: 848, 11530, 15357

**Indigofera rothii**
Leguminosae  VU A1c
Ethiopia
An *Indigofera* species which reaches the stature of a small tree. It is confined to upland scrub and forest margins in an area where the majority of the Ethiopian population lives.
Assessor: World Conservation Monitoring Centre
Refs: 1330, 18523

**Indigofera socotrana**
Leguminosae  VU D2
Yemen (Socotra)
One of the few arborescent *Indigofera* species. It is scattered relatively sparsely in areas of submontane and montane woodland.
Assessor: Miller, A.G.
Refs: 2354, 19083

**Inga allenii**
Leguminosae  VU A2c
Colombia, Costa Rica, Panama
In Panama, a large number of the original species’ localities have been converted into fields, especially banana plantations, ranches and farms. A few collections are known from Coclé and some more doubtful ones from Darién. In Costa Rica the species is fairly common in the south-east and there are small populations in La Selva and Limón. Recently the species has been recorded in Valle del Cauca, Colombia.
Assessor: Mitré, M.
Refs: 7980, 15037, 16772, 19123

**Inga amboroensis**
Leguminosae  VU D2
Bolivia
A tree known only from the type locality in the Amboró National Park, Santa Cruz. It occurs in montane rainforest at 1380m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga andersonii**
Leguminosae  VU D2
Mexico (Jalisco)
A small tree, known only from the type locality in forest in a humid ravine.
Assessor: World Conservation Monitoring Centre
Refs: 17165, 19123

**Inga approximata**
Leguminosae  VU D2
Bolivia
Known only from three localities in Cochabamba and Santa Cruz, this small tree occurs in cloud forest between 2000 and 2500m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga apera**
Leguminosae  VU B1+2c
Brazil (Bahia)
Found below 1000m, this small tree occurs in secondary
vegetation derived from wet lowland rainforest in Bahia.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga arenicola**  
**Leguminosae**  
EN B1+2c  
Brazil (Rio de Janeiro)  
This treelet, up to 4m tall, is restricted to dense low arboreal *restinga* near the coast of Rio de Janeiro.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga augusti**  
**Leguminosae**  
VU D2  
Peru  
Collected only twice, this small tree occurs in sclerophyllous bush in Huánuco between 1800 and 2500m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984, 19123

**Inga balsapambensis**  
**Leguminosae**  
VU A1c, B1+2c  
Ecuador  
Restricted to the western slopes of the Ecuadorean Andes between 1550 and 1770m, this small tree occurs on steep slopes in remnant forest fragments and disturbed areas. This region was formerly covered in cloud forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga bella**  
**Leguminosae**  
EN B1+2c  
Costa Rica  
A small tree found in gallery forest and secondary vegetation. It appears to be restricted to the Osa Peninsula.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga bicoloriflora**  
**Leguminosae**  
VU B1+2c  
Brazil (Amazonas)  
Apparently restricted to central Amazonas, this tree is known only from a few collections from non-flooded lowland rainforest near Manaus.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga biflora**  
**Leguminosae**  
VU D2  
Venezuela  
A tree known only from the type collection found at 2200m on Soroárá-tepui in southern Venezuela.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga blanchetiana**  
**Leguminosae**  
EN B1+2c  
Brazil (Bahia)  
A tree restricted to the threatened Atlantic coastal lowland rainforest of Bahia.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga bollandii**  
**Leguminosae**  
VU D2  
Brazil (Ceará, Rio de Janeiro?, Sergipe)  
A species of hill forest occurring between 900 and 1000m. A collection labelled Rio de Janeiro is suspected to be misidentified.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga bracteifera**  
**Leguminosae**  
EN B1+2c  
Costa Rica  
An understorey tree in high rainforest endemic to the Osa Peninsula in south-eastern Costa Rica.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga bullata**  
**Leguminosae**  
VU B1+2c  
Brazil (Rio de Janeiro, São Paulo)  
So far known only from a few collections from Rio de Janeiro and São Paulo, the species occurs in lowland secondary forest and swampy areas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga bullatorugosa**  
**Leguminosae**  
VU D2  
Brazil (Pará)  
Known only from three collections from the River Tapajoz in Pará, this small tree occurs in non-flooded lowland forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga cabelo**  
**Leguminosae**  
EN B1+2c  
Brazil (Espírito Santo, Rio de Janeiro)  
A small tree of coastal rainforest confined to the states of Espírito Santo and Rio de Janeiro.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga calantha**  
**Leguminosae**  
VU D2  
Brazil (Pará)  
A small tree of secondary forest on non-flooded land, known from just two collections from the middle Tapajoz River.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga calanthoides**  
**Leguminosae**  
VU D2  
Suriname  
A tree known only from the type collection, gathered from forest on Tafelberg in 1944.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15188, 19123, 19196

**Inga calcicola**  
**Leguminosae**  
VU D2  
Mexico (Oaxaca)  
Confined to the Tuxtepec District of Oaxaca, this understorey tree occurs in lowland evergreen rainforest on limestone. Although there has been extensive
deforestation, this area is perhaps less susceptible to development and clearance because of the difficulty of working on the karst substrate.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123, 19124

**Inga canonegrensis**  
**Leguminosae**  
**VU D2**  
Costa Rica  
A small tree known only from the type locality. It grows on poorly drained flat land in rainforest near sea level in Alajuela.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga caudata**  
**Leguminosae**  
**VU D2**  
Brazil (Amazonas)  
A species known only from the type collection from Rio Maturacá in Amazonas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga chiapensis**  
**Leguminosae**  
**VU A1c**  
Mexico (Chiapas, Veracruz)  
A tree of deciduous forest on the northern edge of the Central Depression in Chiapas and of high evergreen rainforest in Uxpanapa in Veracruz. Half of the forest in the Uxpanapa has disappeared through land clearance for a government relocation scheme. This population is similar to and may prove to be *I. dayacarp.*  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5651, 5993, 19123

**Inga coragy gypsum**  
**Leguminosae**  
**VU D2**  
Colombia  
Apparently restricted to the department of Santander del Sur in Colombia, this small tree is known from two collections, which were gathered between 1800 and 1900m. There is no available information on the species habitat type.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga cuspidata**  
**Leguminosae**  
**VU B1+2c**  
Panama  
A small tree confined to a restricted area of lowland rainforest near rivers in central Panama.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga cynometrifolia**  
**Leguminosae**  
**VU D2**  
Peru  
A small tree known from only two collections from rainforest at 250m in Juan Guerra in Loreto and from Rio Huallaga in San Martin.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga dominicensis**  
**Leguminosae**  
**VU D2**  
Dominica  
A small tree up to 4m tall, confined to montane rainforest between 700 and 800m. The 40km² of montane forest on Dominica has largely escaped deforestation.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7424, 19123, 19124

**Inga dwyeri**  
**Leguminosae**  
**VU B1+2c**  
Panama  
A small tree of wet lowland and montane forest up to 900m, known only from central Panama.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga enterolobioides**  
**Leguminosae**  
**CR B1+2c**  
Brazil (Rio de Janeiro)  
Known only from the type collection from Rio de Janeiro, this tree is likely to have occurred in rainforest but its present status and location, if it is still in existence, are unknown.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga exalata ssp. umbilicata**  
**Leguminosae**  
**EN B1+2c**  
Costa Rica  
A poorly collected subspecies known only from mixed lowland rainforest up to 500m from the Osa Peninsula and from a single collection from montane forest in San José.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga exfoliata**  
**Leguminosae**  
**EN B1+2c**  
Brazil (Espírito Santo)  
An understory tree, found in rainforest on the coastal plains and in hill forest up to 800m, endemic to Espírito Santo.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga exilis**  
**Leguminosae**  
**VU D2**  
Brazil (Amazonas)  
A small tree of lowland forest on *terra firme,* known only from the type collection from western Amazonas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga extra-nodis**  
**Leguminosae**  
**VU B1+2c**  
Ecuador  
Found between 1700 and 2000m, this tree is restricted to the upper Amazonian slopes of the Ecuadorian Andes in disturbed areas, roadsides and pastures. This region was formerly covered in montane rainforest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123

**Inga fosteriana**  
**Leguminosae**  
**VU D2**  
Peru  
Known only from the type collection, this small tree was found in lowland rainforest between Shintuya and Manu in Madre de Dios in 1974.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19123
Inga gereauana
Leguminosae
Peru
A small tree of undisturbed lowland rainforest on nonflooded land between 120 and 150m, known only from a small area of Amazonian Peru near Iquitos.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga gelfo dulcensis
Leguminosae
EN Bl+2c
Colombia, Costa Rica
A tree found in lowland evergreen forest up to 200m. In Costa Rica, populations are restricted to the Osa Peninsula and it is also apparently reported from Colombia.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga goniocalyx
Leguminosae
DD
Colombia
A species known only from two collections without exact locality.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga grazielae
Leguminosae
VU Bl+2c
Brazil (Bahia)
Found below 100m, this small tree occurs in wet lowland rainforest and associated secondary vegetation in Bahia.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga hayesii
Leguminosae
LR/nt
Colombia, Costa Rica, Ecuador, Nicaragua, Panama, Peru
Although for many years the species was thought to be endemic to Panama, it is now known to range from Nicaragua to Peru, occurring in lowland semi-deciduous rainforest, often at the edges of roads and in secondary forest. In Panama and Costa Rica, and probably in other countries, trees are found only in small numbers outside protected areas.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772, 19123

Inga herrerae
Leguminosae
EN Bl+2c
Costa Rica
Endemic to Guanacaste Province, this localised tree is found in forest of rainforest. It is present in Rincon de la Vieja National Park.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga hispida
Leguminosae
VU A1c
Brazil (Espírito Santo, Minas Gerais, Rio de Janeiro)
A small tree found in wet forest between 400 and 800m from Minas Gerais to Rio de Janeiro.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga interfluminensis
Leguminosae
VU D2
Colombia
A tall tree known only from the type collection, gathered at 2100m in Antioquia.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga israelis
Leguminosae
VU A1c, Bl+2c
Mexico (Oaxaca, Veracruz)
A tree of lowland evergreen rainforest in the Uxpanapa region of Veracruz and the Tuxtepec area of Oaxaca. It grows on deep soils on limestone outcrops below 200m. The forest at Uxpanapa has been severely reduced through clearance for a government relocation scheme.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 5993, 19123

Inga jaenechensis
Leguminosae
CR Bl+2c
Ecuador
A small understorey tree of seasonal lowland mixed forest, confined to the 100ha Jaeneche Reserve in Los Ríos Province. The area is in a precarious position, threatened by fires and encroachment.
Assessor: Pennington, T.D.
Refs: 19123, 19217

Inga jimenezii
Leguminosae
EN Bl+2c
Costa Rica
A understorey tree of seasonal semi-deciduous rainforest, restricted to a small area of San José Province. It occurs within the Carará Biological Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga lacustris
Leguminosae
EN A1c, Bl+2c
Mexico (Veracruz)
A small tree, restricted to an area of rainforest adjacent to mangroves in the Los Tuxtlas region of southern Veracruz.
Assessor: World Conservation Monitoring Centre
Refs: 5993, 19123, 19124

Inga lanceifolia
Leguminosae
EN Bl+2c
Brazil (Rio de Janeiro)
A tree occurring in rainforest on hills between 900 and 1200m in Rio de Janeiro.
Assessor: World Conservation Monitoring Centre
Refs: 19123

Inga latipes
Leguminosae
EN Bl+2c
Costa Rica
Restricted to Limón and Cartago, this tree occurs in montane rainforest between 450 and 1400m. Rates of habitat loss have been severe.
Assessor: World Conservation Monitoring Centre
Refs: 14487, 19123

Inga lenticellata
Leguminosae
VU A1c
Brazil (Rio de Janeiro, São Paulo)
Apparently restricted to the states of Rio de Janeiro and

Species Summaries
São Paulo, the tree is found in rainforest on hills and along riversides up to 1000m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga lentiscifolia**
Leguminosae  VU A1c
Brazil (Rio Grande do Sul, Santa Catarina)
Apparently restricted to Santa Catarina and Rio Grande do Sul, this species occurs in cloud forest and Araucaria forest between 900 and 1000m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga leptantha**
Leguminosae  VU A1c
Brazil (Bahia, Espírito Santo, Rio de Janeiro)
A tree, reaching 6m in height, found in disturbed lowland wet forest from Bahia to Rio de Janeiro.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga leptingoides**
Leguminosae  VU D2
Suriname
Restricted to Tafelberg Mountain, this small tree is known from a few locations of low bush or *Clusia* bush.
Assessor: World Conservation Monitoring Centre
Refs: 19123, 19196

**Inga littoralis**
Leguminosae  EN B1+2c
Costa Rica
Endemic to the Pacific drainage region of Costa Rica, this tree occurs in semi-deciduous forest extending into evergreen forest near the Pacific coast.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga macarenensis**
Leguminosae  VU D2
Colombia
A small tree known only from the type collection found at 1700m in dense mossy forest in Sierra de la Macarena National Natural Park.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga macrantha**
Leguminosae  VU D2
Venezuela
This small tree is restricted to Isla Margarita off the north coast of Venezuela. It grows in windswept evergreen cloud forest between 400 and 850m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga maritima**
Leguminosae  EN B1+2c
Brazil (Rio de Janeiro, Rio Grande do Sul?)
A shrub or small tree confined to *restinga*, mainly in Rio de Janeiro, but also from Rio Grande do Sul, where a single collection has been made and provisionally included in this species.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga martincens**
Leguminosae  VU D2
Martinique
A shrub or small tree restricted to a small area of rainforest between 600 and 700m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga megalobotrys**
Leguminosae  LR/ce
Peru
Confined to flood plain forest between 350 and 400m, this treelet, up to 3.5m tall, is known only from Manu National Park in Madre de Dios.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga mendoncae**
Leguminosae  EN B1+2c
Brazil (Rio de Janeiro)
A small tree of coastal forest between 500 and 1000m, restricted to the state of Rio de Janeiro.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga microcalyx**
Leguminosae  VU D2
Brazil (Pará)
A small tree up to 8m tall, found only along the flooded banks of the Amazon River in Pará.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga mortoniana**
Leguminosae  EN B1+2c
Costa Rica
A small tree, endemic to Costa Rica, confined to wet montane forest between 900 and 1750m. An estimated total of 1037km² montane forest remain in Costa Rica.
Assessor: World Conservation Monitoring Centre
Refs: 19123, 19124

**Inga mucuna**
Leguminosae  VU A1c
Colombia, Panama
Populations occur in lowland semi-deciduous rainforest, rarely in secondary forest, throughout Panama and in Chocó and Antioquia in Colombia. The species is generally scarce except in the Canal area and in Darién National Park, Panama. Much of the unprotected forest at these low altitudes is exposed to increasing settlement, farming and agriculture.
Assessor: Mitre, M.
Refs: 7980, 16772

**Inga multiijuga ssp. aestuariorum**
Leguminosae  EN B1+2c
Costa Rica, Panama
A dry forest tree found along rivers and the Pacific coast at low altitudes.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga neblinensis**
Leguminosae  VU D2
Venezuela
This small tree is known from two localities on periodically flooded gravel bars and in swamp forest up
to 800m on the lower slopes of Cerro Neblina.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga pallida**
Leguminosae  
Bolivia  
VU D2

Information on the species is somewhat limited. It is thought to be a tree of montane forest and is currently known only from the type collection from eastern Bolivia.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga pauciflora**
Leguminosae  
Panama  
VU A1c

So far the species has been found only in Panama. It occurs, nowhere in abundance, in lowland rainforest throughout the country. The larger part of its distribution coincides with areas experiencing an influx of people and increasing agricultural and farming activities. It is most common in the Canal area, where it occurs in a number of protected areas.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772, 19123

**Inga pedunculata**
Leguminosae  
Brazili (Bahia)  
EN B1+2c

A treelet known from only two collections, one gathered from *restinga* and the other from disturbed wet lowland forest.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga platyptera**
Leguminosae  
Brazil (Rio de Janeiro)  
EN B1+2c

A tree known from several collections from Rio de Janeiro, where it occurs in rainforest on hills at approximately 1200m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga pleiogyina**
Leguminosae  
Brazili (Bahia)  
VU B1+2c

Apparently endemic to Bahia, this treelet is confined to *restinga* over white sand at sea level.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga pluricarpellata**
Leguminosae  
Peru  
VU D2

A small tree known only from two collections from eastern Peru. It occurs in wet forest between 200 and 300m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga porcata**
Leguminosae  
Peru  
LR/cd

Found between 350 and 400m in lowland flood plain forest, this recently described species is known only from Cuzco and Manu National Park and Rio Sotileja in Madre de Dios.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga portabelloensis**
Leguminosae  
Panama  
VU B1+2c

Confined to central Panama, this tree occurs in gallery forest along rivers and sandbars below 100m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga praeagnans**
Leguminosae  
Brazil (São Paulo)  
VU B1+2c

Restricted to the state of São Paulo, this treelet occurs in lowland rainforest.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga saffordiana**
Leguminosae  
Colombia, Panama  
VU A1c

In Panama, the species is known from a few forest localities in Darién, including Darién National Park. Recent reports indicate the species also exists in the Chocó and Antioquia in Colombia. It doesn't appear to be common at any of these sites and where the habitat is unprotected it suffers increasing encroachment.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772, 19123

**Inga salicifoliola**
Leguminosae  
Brazil (Amazonas)  
VU D2

Known only from the type collection, the species is locally common in forest on the lower slopes of the Cerro Neblina near the Brazilian-Venezuelan border.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga saltensis**
Leguminosae  
Argentina (Jujuy, Salta), Bolivia  
VU B1+2c

Endemic to piedmont forest of north-west Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122, 19123

**Inga santaremensis**
Leguminosae  
Brazil (Pará)  
VU D2

Apparantly confined to the state of Pará, only a few collections of this small tree have been found in disturbed rainforest on non-flooded sites.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga sevilliana**
Leguminosae  
Brazil (São Paulo)  
EN B1+2c

A shrub or small tree up to 2.5m in height, found on sand dunes and in beach scrub, apparently only in São Paulo.
Assessor: World Conservation Monitoring Centre
Refs: 19123

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**Inga sinacae**
Leguminosae
EN A1c, B1+2c
Mexico (Veracruz)
Restricted to the Los Tuxtlas region of Veracruz, this tree is found in evergreen rainforest up to 200m. Most collections of this species were made near the Los Tuxtlas Biological Station.
Assessor: World Conservation Monitoring Centre
Refs: 5993, 19123

**Inga skutchii**
Leguminosae
VU B1+2c
Costa Rica
Known only from south-east Costa Rica, this tree is found in disturbed lowland to montane rainforest up to 1300m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga spiralis**
Leguminosae
VU D2
Panama
This tree of wet lowland forest is restricted to central Panama. It is known only from four collections.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga stenophylla**
Leguminosae
EN B1+2c
Costa Rica
A treelet, up to 2m in height, confined to montane and cloud forest in central Costa Rica between 600 and 1200m. Only an estimated 1037km² of montane forest remain in Costa Rica.
Assessor: World Conservation Monitoring Centre
Refs: 14487, 19123, 19124

**Inga suberosa**
Leguminosae
EN B1+2c
Brazil (Amazonas)
Apparently restricted to Manaus, this recently described tree grows in mixed rainforest on non-flooded sites. It is known from two collections.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga subnuda ssp. subnuda**
Leguminosae
VU A1c
Brazil (Araguaia, Bahia, Mato Grosso, Pará, Pernambuco, Sergipe)
A tree of arboreal *restinga* on sand, distributed near the coast from Pará to Espírito Santo. In Espírito Santo, the species is also found in lowland rainforest near sea level.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga suborbicularis**
Leguminosae
VU A1c
Brazil (Bahia, Minas Gerais)
An understory tree of lowland rainforest up to 600m, restricted to Minas Gerais and the coastal zone of Bahia.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga tenuicalyx**
Leguminosae
VU D2
Peru
Restricted to the Tarapoto region of San Martín, this small tree or shrub grows in dry low forest between 200 and 300m.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga tenuiloba**
Leguminosae
EN B1+2c
Costa Rica
A tree of undisturbed lowland rainforest between 50 and 150m, endemic to the Osa Peninsula in south-eastern Costa Rica.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga unica**
Leguminosae
VU B1+2c
Brazil (Bahia, Espírito Santo)
A tree known from a few collections gathered from rainforest in Bahia and Espírito Santo.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga xinguensis**
Leguminosae
VU D2
Brazil (Pará)
A recently described species known only from the type collection found in non-flooded lowland forest on the bank of the River Xingu in Pará.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Inga yasuniana**
Leguminosae
LR/cd
Ecuador
An understory tree, known only from non-flooded lowland rainforest in Yasuní National Park.
Assessor: World Conservation Monitoring Centre
Refs: 19123

**Intsia acuminata**
Leguminosae
VU A1d
Philippines
A species which occurs in coastal forest. It yields valuable merbau timber used for high-quality furniture.
Assessor: World Conservation Monitoring Centre
Refs: 4919, 12937

**Intsia bijuga**
Leguminosae
VU A1cd
American Samoa, Australia, British Indian Ocean Territory (Chagos Archipelago), Cambodia, India, Indonesia (Irian Jaya, Kalimantan, Lesser Sunda Is.), Japan, Madagascar, Malaysia (Peninsular Malaysia, Sabah, Sarawak), Myanmar, Papua New Guinea (Bismarck Archipelago, Papua New Guinea), Philippines, Seychelles, Singapore, Solomon Islands (South Solomon), Tanzania, Thailand, Vanuatu, Vietnam
A lowland rainforest tree which produces one of the most valuable timbers of South East Asia. The species has been exploited so intensively for merbau timber that few sizeable natural stands remain. Few plantations are
established. In Peninsular Malaysia, trees are never common and rarely reach a commercial size. There are apparently good stands still in Indonesia and Papua New Guinea.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 559, 2625, 4919, 5054, 6156, 6161, 8058, 8865, 9199, 10571, 12779, 12937, 13662, 14011, 14573, 16765, 17140

**Iochroma lehmannii**
*Solanaeae*

Ecuador

An endemic of Ecuador, inhabiting cloud forest at 2850m, in Chimborazo Province in the High Andes.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Iochroma longipes**
*Solanaeae*

Ecuador

An endemic tree of Ecuador, inhabiting upper montane cloud forest in the High Andean regions of Carchi and Pichincha.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Ipomoea pulcherrima**
*Convolvulacea*

VU D2

Peru

An arborescent *Ipomoea* species, known only from the type collection which was taken from a savanna area above 1000m.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Irvingia gabonensis**
*Irvingiacea*

Angola, Congo, Côte d'Ivoire, Democratic Republic of Congo, Ghana, Guinea, Nigeria, São Tomé & Príncipe (Príncipe), Senegal, Sierra Leone, Sudan, Uganda

Tropical evergreen rainforest is the optimal habitat for this species. However, it occurs also in gallery forest and semi-deciduous forest and is often found in towns or on the outskirts of villages. It is restricted to fairly wet, well-drained loamy to clayey soils. Population numbers have declined through logging operations, the expansion of human settlements and poor natural regeneration.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2773, 4506, 6127, 8369, 10961, 16021, 17408

**Iryanthera campinae**
*Myristicacea*

Brazil

**Assessor:** Rodrigues, W.A.
**Refs:** 19198

**Iryanthera megistocarpa**
*Myristicacea*

Panama

Recorded very rarely, the species is known only from the vicinity of the highway which runs from El Llano to Carti in the Kunayala Indigenous Reserve. This area has been well covered botanically and the low number of collections of the species is a reasonable indication of its scarcity. Moreover, in recent years the major part of the forest here has been cleared and the land colonised by campesinos.

**Assessor:** Mitré, M.
**Refs:** 233, 7980, 16772

**Iryanthera obovata**
*Myristicacea*

Brazil

**Assessor:** Rodrigues, W.A.
**Refs:** 19198

**Isobertia scheffleri**
*Leguminosae*

Tanzania

A species of moist forest at a wide altitudinal range.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 1308, 3356, 3925, 7550

**Isolona congolana**
*Annonaceae*

Democratic Republic of Congo, Uganda

A useful tree occurring in areas of closed forest, often along rivers, largely in DR Congo, extending into Uganda.

**Assessor:** Ndjele, M.B.
**Refs:** 1308, 10961, 16021, 17951

**Isolona deightonii**
*Annonaceae*

Ghana, Sierra Leone

This species is uncommon and confined to the wet evergreen forest in Upper Guinea. The forest has declined over the past decades as a result of logging, mining and commercial forestry activities.

**Assessor:** Hawthorne, W.
**Refs:** 4108, 8369, 12061

**Isolona dewevrei**
*Annonaceae*

Democratic Republic of Congo

A Mayombe endemic known from two localities in the Luki Forest Reserve. The habitat has been greatly reduced by logging, charcoal production and agriculture.

**Assessor:** Ndjele, M.B.
**Refs:** 17951

**Isolona heinseni**
*Annonaceae*

Tanzania

Restricted to low-elevation forests, the species occurs in the East Usamba Mountains and Magombera.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 9302

**Isonandra perakensis var. perakensis**
*Sapotaceae*

Malaysia (Peninsular Malaysia)

A small tree of lowland rainforest, known under two varieties. This variety is confined to the state of Perak. A population is protected in Taman Negara National Park.

**Assessor:** Chua, L.S.L.
**Refs:** 19073

**Isonandra stocksii**
*Sapotaceae*

India

A small tree scattered in forest remnants in the Western Ghats. Several occurrences recorded from the turn of the century no longer appear to exist. The most recent collections are from Bangare in Upper Bisle Ghat and the Bababudan Hills.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4799
Isonandra villosa
Sapotaceae  EN B1+2c
India (Kerala, Tamil Nadu)
A species with a disjunct distribution, occurring in the Velligonda Hills in the south of the Eastern Ghats and in Quilon in coastal Kerala. Little is known of the present status of the populations as no record of them has been made since 1923.
Assessor: World Conservation Monitoring Centre
Refs: 4799

Itaya amicorum
Palmae  DD
Brazil, Colombia, Peru
An understory palm of lowland rainforest, confined to the western Amazon regions of Brazil, Colombia and Peru. In Colombia it is known from a remote locality in a national park. At a local level the trunk is burned for the production of salt and leaves are used for thatch.
Assessor: Bernal, R.
Refs: 19118

Itayluma pinfolium
Sapotaceae  EN B1+2c
New Caledonia
The genus has now been moved to Pouteria. The taxon has been collected from Mont Poume and from maquis in Kouna and a few localities in the vicinity.
Assessor: Jaffré, T. et al.
Refs: 10351, 10781, 12630

Ixora chinensis
Ixoraichaeae  VU A1cd
China (Fujian, Guangdong, Guangxi, Guizhou, Hunan, Yunnan), Viet Nam
A small to medium-sized tree, which is widely scattered in China, crossing the border into northern Viet Nam. Occurring in lowland monsoon forest, the species has suffered extensive habitat loss. One of the major populations is found on Halnain Island, which has experienced large-scale habitat destruction over the last 30 years. Other areas of forest are given protection.
Assessor: Sun, W.
Refs: 1818, 11847, 15357, 19055

Ixora khasiana
Ixoraichaeae  VU B1+2c
India (Assam, Meghalaya)
Occurrences are known from the Syrengam, Khasi and the Jaintia Hills in Meghalaya and Bhutan Hill in Assam. The species is found in rainforest over 1000m. High rates of habitat loss have affected the entire range and no collections appear to have been made more recently than 1937.
Assessor: World Conservation Monitoring Centre
Refs: 2538

Ixora albersii
Rubiaceae  VU B1+2b
Tanzania
A moist montane forest species confined to the West Usambara Mountains at Shagayu and Shuwe-Magamba.
Assessor: Lovett, J. & C.P. Clarke
Refs: 3356, 10961

Ixora brevipedunculata
Rubiaceae  DD
French Polynesia (Tubuai Is.)
An endemic to Tubuai Island.
Assessor: Florence, J.
Refs: 14513

Ixora calycina
Rubiaceae  EN B1+2c
Sri Lanka
Apparently restricted to the wet zone of Sri Lanka, this species was collected in five forests during the extensive fieldwork carried out for the recent National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Ixora degemensis
Rubiaceae  EN B1+2c
Nigeria
A shrubby tree endemic, confined to an area on the coast at Degema.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 11504

Ixora johnsonii
Rubiaceae  CR B1+2c
India (Kerala)
Known only from an imprecisely recorded location in the vicinity of Ernakulam on the Kerala coast, it is not known whether the species is still extant.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Ixora jucunda
Rubiaceae  VU A1c
Sri Lanka
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

Ixora lawsonii
Rubiaceae  EN B1+2c
India (Karnataka, Kerala)
A small tree of submontane evergreen forest, known from two records close to the Kerala-Karnataka border.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Ixora malabarica
Rubiaceae  VU B1+2c
India (Karnataka, Kerala)
A small tree, recorded from scattered localities of lowland forest along the coast.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Ixora marquesensis
Rubiaceae  DD
French Polynesia (Marquesas Is.)
Populations are recorded from Fatu Hiva, Mohotani and Nuku Hiva.
Assessor: Florence, J.
Refs: 14513
**Ixora nigerica**  
Rubiaceae  
Nigeria  
This shrubby tree is endemic to southern Nigeria.  
Assessor: World Conservation Monitoring Centre  
Refs: 2773, 11504

**Ixora ooumensis**  
Rubiaceae  
French Polynesia (Marquesas Is.)  
An endemic to Nuku Hiva.  
Assessor: Florence, J.  
Refs: 14513

**Ixora pudica**  
Rubiaceae  
Seychelles  
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.  
Assessor: World Conservation Monitoring Centre  
Refs: 16212, 17229

**Ixora raiatensis**  
Rubiaceae  
French Polynesia (Society Is.)  
An endemic to Raiatea.  
Assessor: Florence, J.  
Refs: 14513

**Ixora raivavaensis**  
Rubiaceae  
French Polynesia (Tubuai Is.)  
An endemic to Raivavae.  
Assessor: Florence, J.  
Refs: 14513

**Ixora saulieri**  
Rubiaceae  
India (Tamil Nadu)  
A poorly recorded tree, occurring in the understorey of montane forest in the Palni Hills.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

**Ixora scheffleri** ssp. keniensis  
Rubiaceae  
Kenya  
A shrub or tree which is possibly extinct, originally known from the north-east, east and south slopes of Mount Kenya between 1900 and 2100m in areas of moist Ocotoca forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 6396

**Ixora scheffleri** ssp. scheffleri  
Rubiaceae  
Malawi, Tanzania  
A subspecies which appears to extend from Tanzania into Malawi, confined to the remaining moist forest areas at submontane to montane elevations. In Tanzania records are known from the East Usambara Mountains, North Uluguru Mountains, Udzungwa Mountains and Rungwe Mountain.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3556, 6396, 10961

**Ixora st.-johnii**  
Rubiaceae  
French Polynesia (Society Is.)  
An endemic to Huahine.  
Assessor: Florence, J.  
Refs: 14513

**Ixora temehaniensis**  
Rubiaceae  
French Polynesia (Society Is.)  
An endemic to Raiatea.  
Assessor: Florence, J.  
Refs: 14513

**Ixora umbellata**  
Rubiaceae  
French Polynesia (Society Is.)  
An endemic to Tahiti.  
Assessor: Florence, J.  
Refs: 14513

**Jacaranda arborea**  
Bignoniaceae  
Cuba  
A small tree found in pine forests, serpentine shrubwoods and shrublands of the Sagua-Baracoa range in eastern Cuba. The habitat has been degraded in places. Logging and mining activities are constant threats.  
Assessor: Areces-Mallea, A.E.  
Refs: 7980, 19149

**Jacaranda mimosifolia**  
Bignoniaceae  
Argentina (Catamarca, Jujuy, Salta), Bolivia  
The species is reported to be endemic to the endangered piedmont forest of north-west Argentina and Bolivia, an ecosystem which is rapidly being converted to agriculture.  
Assessor: Prado, D.  
Refs: 5112, 8451, 14040, 15037, 19122

**Jacqueshuberia lorentensis**  
Leguminosae  
Peru  
This species occurs in *terra firme* forest in the department of Loreto. It has been recorded only from the type collection.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Jacquinia macrantha var. clarendonensis**  
Theophrastaceae  
CR B1+2c  
Jamaica  
This small tree is known from a rocky limestone hilltop above 730m, and possibly from Peckham Woods in Clarendon Parish.  
Assessor: World Conservation Monitoring Centre  
Refs: 5653, 7980

**Jacquinia macrantha var. macrantha**  
Theophrastaceae  
CR B1+2c  
Jamaica  
The species is endemic to Jamaica. The type variety is found in crevices of precipitous rocks, where it is relatively well protected from the extensive clearance which has taken place in more accessible habitats.  
Assessor: World Conservation Monitoring Centre  
Refs: 5653, 7980
**Jatropha bullockii**
Euphorbiaceae  VU D2
Mexico (Jalisco)
A relatively recently described species, occurring as a small tree in deciduous forest in La Huerta on the coast of Jalisco. It is known only from the type locality.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 7980, 19068

**Jatropha chameleonis**
Euphorbiaceae  VU D2
Mexico (Jalisco)
Described in 1982, the species is found in deciduous forest in the Chamele Biological Station in La Huerta.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 153, 15346, 19068

**Jatropha unicolor**
Euphorbiaceae  LR/nt
Yemen (Socotra)
Endemic to Socotra, this species is one of its commonest plants, co-dominating low-altitude succulent shrubland.
*Assessor:* Miller, A.G.
*Refs:* 2354, 19083

**Joanesia princeps**
Euphorbiaceae  VU A1cd
Brazil
A rainforest tree found in east Minas Gerais, north Espirito Santo to the south of Bahia. The species has been in decline through forest conversion for agriculture, livestock and plantation projects. In addition, it is exploited for the valuable boleira wood.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 4506, 7980

**Jullydora glandulosa**
Connaraceae  VU B1+2c, D2
Cameroon, Nigeria
A rainforest treelet which is known from four localities. In Nigeria, it exists only on the Obudu Plateau in Cross Rivers National Park, where it is confined to forested valleys. Damage to the habitat is incurred from frequent fires and also from encroaching agriculture, especially banana plantations but also subsistence farming. In Cameroon, the species is restricted to the west, at sites near Obang, Limbe and Ediki.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 14719

**Jullydora pierrei**
Connaraceae  VU D2
Gabon
This treelet has been collected in rainforest near Libreville. The habitat is degraded where there has been logging. The species distribution may be more extensive given that Gabon's forests are relatively unexplored. However most areas are under concession to timber companies and their future remains uncertain.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 14719, 14958

**Joosia standleyana**
Rubiaceae  VU B1+2c
Ecuador
An endemic tree of the Ecuadorean High Andes, currently known only from an area of montane cloud forest between 2000 and 2700m in Zamora-Chinchipe.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 19119, 19120

**Joseanthus chimborazensis**
Compositae  VU B1+2c
Ecuador
A tree species which is endemic to the High Andes of Ecuador.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 19119

**Joseanthus cuarecasii**
Compositae  VU B1+2c
Ecuador
A tree species which is endemic to the High Andes of Ecuador.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 19119, 19120

**Juania australis**
Palmae  VU D2
Chile (Juan Fernández Is)
Restricted to the Masatierra Island, this palm tree occurs on steep slopes and ridges in lowland rainforest between 190 and 900m. Felling of the tree has been prohibited. The Juan Fernandez islands are designated as a national park and biosphere reserve and work is being carried out by CONAF to save the native plants.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 5651, 19118

**Jubaea chilensis**
Palmae  VU A1cd
Chile
A palm tree of dry river valleys in the Andean foothills and of open hillsides in seasonally dry regions. Populations were once relatively common between the latitudes of 32° and 35° south, but they are now confined to a few small areas. This species is felled as a source of palm wine, which is reduced to make honey.
*Assessor:* González, M.
*Refs:* 19118

**Jubaeopsis caffra**
Palmae  VU D2
South Africa (Eastern Cape)
A multi-stemmed palm confined to the north banks of the Msikaba and Mzimvu Rivers on the Transkei coast. Records from the Mzintlava River near Manteku have not been confirmed and it is possible that this subpopulation was destroyed by deforestation. The species grows from just above the water level to the tops of steep forested sandstone cliffs, even in the salt spray zone. Reproduction from seed is poor, but plants sucker vigorously. Both localities have been declared as national monuments and although they are in a designated protected area, there is no management and enforcement to ensure effective protection. This species is traded internationally on a small scale as an ornamental and overexploitation is a potential threat. The miniature coconut fruits are favoured by the local people and baboons.
*Assessor:* Hilton-Taylor, C. et al.
*Refs:* 389, 689, 19118, 19218
Species Summaries

**Juglans australis**

*Juglandaceae*  
LR/nt  
Argentina (Catamarca, Jujuy, Salta, Tucumán), Bolivia  
A vigorous pioneer species, which is valued as a source of timber, medicine, fodder and food. It occurs in moist montane forest in an area extending from north-west Argentina to Tariya and Chiquisaca in Bolivia. Bolivian populations are facing heavy exploitation.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1262, 13295, 19170

**Juglans californica**

*Juglandaceae*  
VU A1c  
USA (California)  
The species may be divided into two varieties, var. *californica* and *hindsii*, both endemic to California. Walnut forest is a much fragmented and declining habitat, threatened in several counties by urbanisation, grazing and possibly by the lack of natural reproduction. There are just two or three stands remaining of var. *hindsii*, although it is widely naturalised in parts of California and was formerly cultivated as a rootstock for *J. regia*, with which it readily hybridises.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 19163, 19183, 19193

**Juglans insularis**

*Juglandaceae*  
VU B1+2c  
Cuba  
An endemic tree, up to 30m tall, occurring in all types of seasonal forest, transitional between rainforest and semi-deciduous forest. The species is typical of pristine communities and acts as an indicator of minimal disturbance. The habitat, however, is one of the most suitable for tropical agriculture. Undisturbed stands are very rare.  
*Assessor:* Areces-Mallea, A.E.  
*Refs:* 16327, 18485, 19149

**Juglans jamaicensis**

*Juglandaceae*  
VU A1c, B1+2c  
Cuba, Dominican Republic, Haiti, Puerto Rico  
A large tree, occurring on all islands of the Greater Antilles except for Jamaica, where it was reported once but probably in error. In Puerto Rico, 10 trees exist in La Silla de Calderon at 1000m. It is similarly uncommon on Cuba and Hispaniola but may be recorded under the name *J. insularis*. The wet montane forest habitat has been extensively destroyed and degraded.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 6057, 7980, 8915, 17124

**Juglans neotropica**

*Juglandaceae*  
EN A1acd+2cd  
Colombia, Ecuador, Peru  
A highland species, with a scattered distribution on the periphery of the Andes and in inter-Andean valleys, often as isolated individuals in agricultural land. Declines in habitat have been considerable and the species continues to be exploited for its timber, which is often used for decorative purposes. Its presence in the international timber trade is thought to be increasing. No commercial plantations have been established. The seeds are also edible and marketed locally.  
*Assessor:* Americas Regional Workshop  
*Refs:* 3014, 4217, 4870, 12109, 16093, 18432, 19069, 19179, 19183

**Juglans olanchana**

*Juglandaceae*  
EN C2a  
Guatemala, Honduras, Mexico, Nicaragua  
A species of the Atlantic lowlands, occurring as distinct varieties.  
*Assessor:* Nelson, C.  
*Refs:* 13995, 18136

**Juglans peruviana**

*Juglandaceae*  
VU D2  
Peru  
This species has been collected just once, from Lima.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Julbernardia magnistipulata**

*Leguminosae*  
VU B1+2b  
Kenya, Tanzania  
This species is restricted to moist forest areas from south-east Kenya to eastern Tanzania.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 3356, 6396, 10961

**Julostylis polyandra**

*Maliaceae*  
EN B1+2c  
India (Kerala)  
Apparently collected only twice, the species is known from two forest localities to the north and south of the Travancore range.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 19144

**Juniperus barbadensis**

*Cupressaceae*  
CR D1  
St Lucia  
Overcutting in the past and overgrazing today have led to the confinement of the species to an inaccessible rocky outcrop, where it occurs in a dwarfed form. It is thought that forms growing to 15m were more frequent at one time.  
*Assessor:* SSC Conifer Specialist Group  
*Refs:* 374

**Juniperus bermudiana**

*Cupressaceae*  
CR B1+2c  
Bermuda  
Overexploitation in the past, as with *J. barbadensis*, has caused population reductions. However, the cause of more recent declines is an infestation of two accidentally introduced scale insects. This species is marginally more common than *J. barbadensis*. A few stands remain in undisturbed areas. Protection measures are helping in its recovery, but the development of the island ensures that the species will never take up its former range.  
*Assessor:* SSC Conifer Specialist Group  
*Refs:* 374, 4506, 9836

**Juniperus blancoi**

*Cupressaceae*  
VU D2  
Mexico (Durango, México State, Sonora)  
Very similar to *J. scopulorum*, this species is known from three locations, generally along streamsides in montane pine-oak forest. It is locally common in Durango.  
*Assessor:* SSC Conifer Specialist Group  
*Refs:* 13041, 13205
**Juniperus brevifolia**
*Cupressaceae*  
Portugal (Azores)  
A shrub or small tree which forms a typical component of remaining laurel forest, mostly above 500m. It is found on all the Azores, except Santa Maria and Graciosa. Continuous cutting of old stands for their high-quality wood has caused significant reductions in the population. Sizeable trees are now rare and the species is represented largely by shrub-sized individuals.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 7222, 13041*

**Juniperus cedrus**
*Cupressaceae*  
Portugal (Madeira), Spain (Canary Is.)  
Remaining populations are confined to dry woodland in inaccessible rocky areas of La Palma and Tenerife in the Canary Islands and only at higher altitudes on Madeira, where a total of 39 specimens have been counted in the wild. The species is dioecious and dispersal between the isolated populations is apparently failing because of declines in numbers in the avian-disperser population. It is listed in regional legislation and populations are also protected within national parks.  
*Assessor: Bañares, A. et al.*
*Refs: 374, 13041, 19022, 19131*

**Juniperus centrasiatica**
*Cupressaceae*  
China (Xinjiang)  
An endemic to the Kuen Luen Mountains.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 13041*

**Juniperus comitana**
*Cupressaceae*  
Guatemala, Mexico (Chiapas)  
Although relatively widespread within its range, stretching from Comitán in Mexico to north Guatemala, the species has suffered population losses from deforestation. It occurs on rocky hills in dry forests.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 4974, 13205, 19161*

**Juniperus convallium var. convallium**
*Cupressaceae*  
China (Sichuan, Xizang)  
The species is found in an area extending from north-west Sichuan into east Tibet.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 13041*

**Juniperus convallium var. microsperma**
*Cupressaceae*  
China (Xizang)  
A species which is endemic to the south-east of Tibet.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 13041*

**Juniperus deppeana var. patoniana**
*Cupressaceae*  
Mexico (Durango)  
This taxon is widely scattered on agricultural land in six main locations. Trees can be coppiced and large individuals are left for shade, leading to an unbalanced population structure. The variety may be dubiously separated by bark characteristics.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 13041, 13205*

**Juniperus deppeana var. robusta**
*Cupressaceae*  
Mexico (Chihuahua, Durango, Jalisco)  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 13205*

**Juniperus deppeana var. zacateecensis**
*Cupressaceae*  
Mexico (Durango, Zacatecas)  
This taxon is restricted, in the same way as var. *patoniana*, to areas where stands have been left to serve as shade trees. The population structure is poor. The variety is dubiously separated by bark characteristics.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 13041, 13205*

**Juniperus durangensis**
*Cupressaceae*  
Mexico (Aguascalientes, Chihuahua, Durango, Jalisco, Sonora, Zacatecas)  
A scarce species which favours openings in montane pine-oak forest. Up to 10 localities are known, but more are likely to be found. It is possible the scarcity of collections is a reflection of the species being overlooked rather than low in numbers.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374*

**Juniperus ekmanii**
*Cupressaceae*  
Haiti  
A taxonomically questionable species. Occurrences are recorded from Morne la Selle and Morne la Visite, although the latter population is now thought to be extinct.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 9836, 13041*

**Juniperus gamboana**
*Cupressaceae*  
Guatemala, Mexico (Chiapas)  
A tree of pine-oak forest, restricted to limestone hillsides. Deforestation continues to occur on a large scale. The timber is used on a local scale.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 13041, 13205, 19161*

**Juniperus gaussenii**
*Cupressaceae*  
China (Yunnan)  
A Yunnan endemic with a relatively restricted range. Overcutting is a threat.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374*

**Juniperus gracilior**
*Cupressaceae*  
Dominican Republic  
Known from a locality near Constanza, Valle del Jaque, the increasing settlement of the area has reduced populations of this species to less accessible or attractive areas.  
*Assessor: SSC Conifer Specialist Group*
*Refs: 374, 13041, 13205*
Juniperus jaliscana
Cupressaceae EN B1+2c
Mexico (Durango, Jalisco)
This species is restricted to two populations in montane pine-oak forest in Pueblo Nuevo, the Sierra Madre Occidental and Cuale in Jalisco. These forests are experiencing rapid deforestation rates.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6541, 13041

Juniperus komarovii
Cupressaceae LR/nt
China (Sichuan)
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Juniperus lucayana
Cupressaceae VU B1+2c
Bahamas, Cuba, Haiti, Jamaica
This species is now rare in Cuba because of past overexploitation. It is technically extinct in Haiti and is rarely seen in the Bahamas. Of all tree species in the Blue Mountains in Jamaica, this is considered to be under the most direct threat because of its value as a fuelwood and a timber. It has a local and scattered distribution, mostly on steep slopes. In the Blue Mountains it occurs most commonly on southern slopes, where deforestation is prevalent and once remote populations are now accessible by road. Regeneration is sparsmodic and young trees frequently colonise exposed sites and landslides.
Assessor: SSC Conifer Specialist Group
Refs: 374, 9836, 16327, 19116, 19149

Juniperus martinezii
Cupressaceae LR/nt
Mexico (Aguascalientes, Guanajuato, Jalisco)
Assessor: SSC Conifer Specialist Group
Refs: 4311, 6541, 13041

Juniperus pingii
Cupressaceae LR/nt
China (Sichuan, Yunnan)
A very rare species but apparently not under threat of extinction. Deforestation is taking place extensively in north-west Yunnan. There are some taxonomic queries about the boundary between this species and other Chinese junipers.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Juniperus procera
Cupressaceae LR/nt
Democratic Republic of Congo, Djibouti, Ethiopia, Kenya, Malawi, Saudi Arabia, Somalia, Sudan, Tanzania, Uganda, Yemen (Former North Yemen), Zimbabwe
Widespread from Arabia to Zimbabwe, this large tree is found in mountainous areas on rocky ground, mostly between 1750 and 2500m. Existing populations in the Arabian Peninsula represent a small fragment of the woodlands that once existed. At lower elevations populations appear to be regenerating extremely poorly, possibly because of climatic changes. Trees continue to be cut for fuelwood and timber at a local level, and in some places also for export. Changing land-use patterns, browsing, particularly by buffalo and elephants, and the increase in plantations of fast-growing exotic species are also contributing to the species' decline. Outlying populations in Zimbabwe, the Republic of Congo and Malawi are extremely small and threatened.
Assessor: World Conservation Monitoring Centre
Refs: 2361, 4506, 5108, 6079, 7222, 14667

Juniperus przewalskii
Cupressaceae LR/nt
China (Gansu, Qinghai, Sichuan)
As with J. pingii, the species is relatively rare but apparently not overly threatened.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Juniperus recurva var. coxii
Cupressaceae VU A1c
China (Yunnan), Myanmar
A fairly widespread variety of moist montane woodland in Yunnan and north-west Myanmar. It has been harvested heavily in Yunnan but appears to regenerate well.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Juniperus sabicola
Cupressaceae VU D2
Cuba
A tree up to 10m tall, restricted to submontane forest on the rocky ridges of Pico Turquino and adjacent peaks in the Sierra Maestra mountain range in south-east Cuba. Population numbers are low.
Assessor: SSC Conifer Specialist Group
Refs: 16327, 18485, 19149

Juniperus standleyi
Cupressaceae EN B1+2bc
Guatemala, Mexico (Chiapas)
An uncommon tree or prostrate shrub, occurring in forest above 3000m. Less than a third of the original 700km² extent of occurrence remains. The wood is heavily exploited for local construction work and fuel, and the scarcity of the tree has now led to municipal boundary disputes. Trees are legally protected but the law is not well respected. In the rainy season grazing by sheep is heavy.
Assessor: SSC Conifer Specialist Group
Refs: 374, 536, 4974, 13205

Juniperus urbaniana
Cupressaceae EN B1+2c
Haiti
Viable populations were recorded in 1984 in Pic la Selle. Since then attempts to find this shrubby species have failed. It appears to be reduced to inaccessible areas. Much of its habitat has been destroyed.
Assessor: SSC Conifer Specialist Group
Refs: 374, 9836

Kogeneckia lanceolata
Rosaceae VU A1cd
Bolivia, Peru
This species is located at elevations in the dry Andean valleys and transition zones to the *puná, where agricultural activity is most intense. Grazing, habitat clearing and collection as a fuelwood is affecting remaining populations. In areas where it was once noted as abundant, the species is almost extinct. The hard wood is also popular for making ploughs, etc.
Assessor: World Conservation Monitoring Centre
Refs: 19180
Kalappia celebica
Leguminosae  VU B1+2c
Indonesia (Sulawesi)
A monotypic genus, known only from a few collections, restricted to lowland forest in the vicinity of Malili. This large tree is locally valuable for its timber, especially for building ships and bridges.
Assessor: World Conservation Monitoring Centre
Refs: 4329, 6426, 19072

Kayea coriacea
Guttiferae  VU D2
Papua New Guinea
This tree is found in Western District and has recently been discovered on Sudest Island. It occurs in lowland seasonally flooded or ridge forest. The taxonomic limits of the species are presently unknown. It could represent more than one taxon.
Assessor: Stevens, P.F.
Refs: 19031, 19113

Kayea macrophylla
Guttiferae  VU D2
Indonesia (Irian Jaya), Papua New Guinea
A small tree of lowland rainforest, known from two collections: one from Geelvink Bay, Irian Jaya, and the other from an area near Angoram in the East Sepik District of Papua New Guinea.
Assessor: Stevens, P.F.
Refs: 19031

Keelia koritschaneri
Rubiaceae  VU B1+2b, D2
Tanzania
A dry forest species confined to the Mombo Forest Reserve, Makuyuni.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Keelia purpurascens
Rubiaceae  VU B1+2b
Tanzania
A Tanzanian endemic restricted to areas of dry forest in the east and south-east.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Kentiopsis oliviformis
Palmae  EN B1+2c
New Caledonia
Occurring in the lowlands, the species is restricted to a small area of the south-west and centre of the island.
Assessor: Jaffré, T. et al.
Refs: 10351, 19118

Kermadecia pronyensis
Proteaceae  VU D2
New Caledonia
A species known from four localities. One is in the south near Prony and more recently the species has been recorded from the Boulinda Massif, where it is found in diverse habitat types of maquis and forest up to an altitude of 850m.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Keteleeria davidiana var. formosana
Pinaceae  CR B1+2c
Taiwan
A close relative of K. davidiana in Yunnan, known from localities in the north and south, separated by 300km. The populations are small, numbering fewer than 150 mature trees, and the lowland forest habitat is commonly invaded by broadleaved species, leading to very poor regeneration. A reserve has been set up specifically to help conserve the taxon. It is also protected under the Cultural Heritage Preservation Law.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 2106, 11191, 13041, 19050, 19051

Keteleeria fortunei
Pinaceae  LR/nt
China (Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Yunnan, Zhejiang), Hong Kong, Viet Nam
Assessor: SSC Conifer Specialist Group
Refs: 1818, 13041

Khaya anthotheca
Melialceae  VU A1ed
Angola, Cameroon, Congo, Côte d’Ivoire, Democratic Republic of Congo, Ghana, Liberia, Malawi, Mozambique, Nigeria, Sierra Leone, Tanzania, Uganda, Zambia, Zimbabwe
An important source of African mahogany, this species is widespread in areas of evergreen forest. It is heavily exploited, particularly in East and West Africa. Regeneration is poor in places, especially where parent trees are scarce, and serious genetic erosion is believed to have occurred. This species is commonly confused with K. grandifoliola. There are protected populations, log export bans and felling limits in various countries.
Assessor: Hawthorne, W.
Refs: 2773, 6128, 6725, 10961, 12061, 13250, 13370, 16021, 16822, 17408

Khaya grandifoliola
Melialceae  VU A1ed
Benin, Côte d’Ivoire, Democratic Republic of Congo, Ghana, Guinea, Nigeria, Sudan, Togo, Uganda
An important timber species, commonly confused with K. anthotheca but less widespread, occurring more frequently in dry semi-evergreen forest and forest outliers. Exploitation is heavy: extraction of mature individuals from populations has been comprehensive. Regeneration is poor away from parent individuals and is best at the savanna-forest boundary. Protected populations and log export bans are in place in various countries.
Assessor: Hawthorne, W.
Refs: 2036, 2773, 6127, 11504, 12061, 14667, 16021

Khaya ivorensis
Melialceae  VU A1ed
Angola, Cameroon, Côte d’Ivoire, Gabon, Ghana, Liberia, Nigeria
The most important Khaya species for providing African mahogany. It is found in various habitat types in West and Central Africa but is most abundant in wet undisturbed evergreen forest. Levels of exploitation are very high. Little regeneration takes place after disturbance. Individuals reach a seed-producing age at
30 years, although large seed crops appear only at three to four year intervals. Log export bans and legal protection exist in various countries.

**Khaya madagascariensis**
Meliaceae EN A1cd
Comoros, Madagascar
In the north-west, the species occurs in Mahajanga, Port-Bergé, Mitsinjo, Ambilobe and also on the Comoros; further east on the mainland in Vohémas, Ambila and Mananjary. Populations are found in rainforest, along rivers, salt-water marshes and also in degraded forest. Both habitat and trees have been heavily exploited.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2036, 2773, 4506, 5003, 11504, 14667

**Khaya senegalensis**
Meliaceae VU A1cd
Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Togo, Uganda
A mahogany species, widespread in high-rainfall savanna woodland. Logging and local exploitation are largely uncontrolled and poorly monitored. In northern parts of the range exploitation may be leading to genetic erosion. Natural regeneration from the seed is poor but does occur from suckers. Legal protection exists in various countries. Many uses of the tree, particularly the medicinal properties of the bark, are documented.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18327, 18388

**Khaya lanceolata**
Meliaceae VU A1c
Cameroon, Central African Republic, Republic of the Congo, Democratic Republic of the Congo, Gabon, Equatorial Guinea, Nigeria, Angola, Cameroon
A small tree or shrub found in swamp forest and heath forest near Kuching, Sarawak. The vegetation surrounding Kuching is extremely threatened by urban encroachment.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18327, 18388

**Khaya lanceolata**
Meliaceae VU A1c
Cameroon, Central African Republic, Republic of the Congo, Democratic Republic of the Congo, Gabon, Equatorial Guinea, Nigeria, Angola, Cameroon
A small tree or shrub found in swamp forest and heath forest near Kuching, Sarawak. The vegetation surrounding Kuching is extremely threatened by urban encroachment.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18327, 18388

**Kibatalia macgregori**
Apocynaceae VU D2
Philippines
Apparently endemic to Sibuyan Island, this tree has been collected only once in montane forest.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18388

**Kibatalia merrilliana**
Apocynaceae VU D2
Philippines
A small tree endemic to the Philippines, so far found only on Samar and Leyte Islands.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18388

**Kibatalia puberula**
Apocynaceae EN B1+2c
Philippines
Restricted to Samar Island, this small evergreen tree occurs in dipterocarp forest on river banks between altitudes of 100 and 250m. It has been collected only three times.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18388

**Kibatalia stenopetala**
Apocynaceae EN B1+2c
Philippines
Found in forest in the foothills of mountains in Luzon and Mindanao, this tree is known only from three herbarium specimens.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18388

**Kibatalia villosa**
Apocynaceae VU B1+2c
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia, Sarawak)
An evergreen tree of swamp and montane forest, found in Johore in Peninsular Malaysia, Kalong and Marundi in Sarawak and in west, east and south Kalimantan.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18388

**Kibatalia wigmani**
Apocynaceae VU D2
Indonesia (Sulawesi)
Endemic to north-east Sulawesi, the species has been collected several times from evergreen forest on volcanic soils.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4329, 18388

**Kielmeyera peruviana**
Guttiferae VU D2
Peru
Known only from the type collection, this species occurs in *terra firme* forest over 1000m in the department of San Martin.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984
Kingiodendron pinnatum
Leguminosae
India (Karnataka, Kerala, Tamil Nadu)
A large tree sparsely distributed in evergreen hill forest and deciduous forest, occurring up to 1000m over a range extending from South Kanara in Karnataka to the southern tip of the Western Ghats in Tamil Nadu. The species yields useful timber, bark and resin. The population has declined considerably because of overexploitation and habitat degradation. Regeneration appears to be very poor.
Assessor: CAMP Workshops on Medicinal Plants in India
Refs: 561, 4799, 19144

Knema alvarezii
Myristicaceae
Philippines
This species is known from only two collections from the Province of Nueva Ecija in the Philippines.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema andamanica ssp. andamanica
Myristicaceae
India (Andaman and Nicobar Is. - Andaman Is., Andaman and Nicobar Is. - Nicobar Is.)
A rainforest tree found only on the Andaman and Nicobar Islands.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema andamanica ssp. nicobarica
Myristicaceae
India (Andaman and Nicobar Is. - Nicobar Is.), Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A total of six collections are known of this rainforest tree, taken from Nicobar Island, Pinang Island in Peninsular Malaysia and Atjeh in Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema andamanica ssp. peninsularis
Myristicaceae
Thailand
This subspecies has been collected only four times from rainforest in Thailand, including some island localities.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema ashtonii var. ashtonii
Myristicaceae
Brunei, Malaysia (Sabah, Sarawak)
This variety is found in primary forest in northern Borneo.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema ashtonii var. cinnamomea
Myristicaceae
Indonesia (Kalimantan), Malaysia (Sarawak)
A primary forest variety found in central-east Kalimantan and Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema austrosiamensis
Myristicaceae
Thailand
Known only from four collections, this tree is found in evergreen forest in south-east Thailand.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema bengalensis
Myristicaceae
Bangladesh
This tree is known only from the type collected in the Chittagong District of Bangladesh.
Assessor: World Conservation Monitoring Centre
Refs: 5626, 10460

Knema celebica
Myristicaceae
Indonesia (Sulawesi)
This species is confined to lowland forest on ultrabasic soils in central Sulawesi, south of Lake Matano. There are no occurrences north of the lake, where the soils have a different origin. It is known from four collections.
Assessor: World Conservation Monitoring Centre
Refs: 4329, 10460

Knema communis
Myristicaceae
Malaysia (Peninsular Malaysia), Singapore
Apparently endemic to Peninsular Malaysia, this scattered species grows in lowland and hill rainforest up to 270m. Expansion of settlements and forest clearance are the main threats.
Assessor: Chua, L.S.L.
Refs: 9199, 17140, 19073

Knema conica
Myristicaceae
Thailand
A small tree found in evergreen forest; known only from the type collected in Chantabun, south-east Thailand in 1930.
Assessor: World Conservation Monitoring Centre
Refs: 10460
Knema curtisi var. amoena
Myristicaceae  VU D2
Brunei
Very localised, this variety is known only from the type collected from lowland forest in Brunei.
Assessor: de Wilde, W.J.J.O.
Refs: 10460, 19078

Knema curtisi var. arenosa
Myristicaceae  VU D2
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
Endemic to Borneo, this uncommon variety is restricted to sandy ridges. It has not been collected recently.
Assessor: World Conservation Monitoring Centre
Refs: 10460, 19078

Knema curtisi var. paludosum
Myristicaceae  VU A1c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Singapore
A variety found predominantly in freshwater swamp forest, where it has been collected only infrequently.
Assessor: World Conservation Monitoring Centre
Refs: 9199, 10460

Knema emmae
Myristicaceae  VU D2
Indonesia (Kalimantan), Malaysia (Sabah)
A small tree of hillside forest, recently described and known only from three collections from Bukit Tawau and Keningau in Sabah and Gunung Maeru Tagal in north-east Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 2147

Knema glauca var. riparia
Myristicaceae  VU A1c
Malaysia (Sarawak)
This tree is usually found in lowland primary riverine forest.
Assessor: World Conservation Monitoring Centre
Refs: 875

Knema hirtella var. pilocarpa
Myristicaceae  VU B1+2c
Indonesia (Kalimantan), Malaysia (Sabah)
This variety is known from occurrences in east Kalimantan, east Sabah and from a collection in Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema hookerana
Myristicaceae  VU A1c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore, Thailand
A distinctive species which occurs from southern Peninsular Thailand to Sumatra; no recent collections have been made.
Assessor: de Wilde, W.J.J.O.
Refs: 9199, 10460

Knema intermedia
Myristicaceae  LR/nt
Indonesia (Java, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Singapore
Although fairly widespread in west Malasia, the species has been collected only twice in recent years.
Assessor: de Wilde, W.J.J.O.
Refs: 9199, 10460, 17140

Knema kinabaluensis
Myristicaceae  LR/cd
Malaysia (Sabah)
A montane species locally common and endemic to Mount Kinabalu and the surrounding area.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 10460

Knema korthalsii ssp. rimosum
Myristicaceae  VU B1+2c
Malaysia (Sabah)
A small tree of lowland primary dipterocarp forest endemic to east Sabah.
Assessor: World Conservation Monitoring Centre
Refs: 19082

Knema kostermansiana
Myristicaceae  VU D2
Indonesia (Kalimantan), Malaysia (Sabah)
A tree found in logged forest and riverine forest; it is known from two collections from Sabah, a single collection from Sarawak and another from north-east Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 875, 1766, 10460

Knema kunstleri ssp. alpina
Myristicaceae  LR/nt
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A subspecies of submontane to montane forest in Sarawak, Sabah and west and south Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema kunstleri ssp. coriacea
Myristicaceae  VU A1c
Brunei, Malaysia (Sabah, Sarawak)
A subspecies usually found in the threatened peat-swamp forests of northern Borneo.
Assessor: World Conservation Monitoring Centre
Refs: 10460

Knema kunstleri ssp. leptophylla
Myristicaceae  VU D2
Indonesia (Kalimantan)
This recently described subspecies is known only from the type collection. It was found in primary hill dipterocarp forest in west Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 2147

Knema kunstleri ssp. macrophylla
Myristicaceae  VU D2
Indonesia (Sumatra)
Known only from the type collection from the Irdragiri
Uplands, the subspecies occurs in lowland swamp forest. 

Assessor: World Conservation Monitoring Centre 
Refs: 10460, 10547

**Knema kunstleri** ssp. **pseudostellata**

Myristicaceae  
Indonesia (Kalimantan)  
A small tree known only from a single collection found in primary dipterocarp forest at 1200m in Serawai, west Kalimantan.  
Assessor: World Conservation Monitoring Centre  
Refs: 19082

**Knema lamellaria**

Myristicaceae  
Malaysia (Peninsular Malaysia)  
A species known only from a collection from Terengganu and another from Pahang.  
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema lampiongensis**

Myristicaceae  
Indonesia (Kalimantan, Sumatra)  
A total of five collections have been found on the east coast and Riouw Island off Sumatra and the Anambas Islands off Borneo.  
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema latericia** ssp. **latericia**

Myristicaceae  
Philippines  
This subspecies is endemic to Palawan; it has been further divided into two varieties: var. *latericia* and var. *subtilis*. The variety *subtilis* grows in primary and logged dipterocarp forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 10460, 19082

**Knema longepilosa**

Myristicaceae  
Indonesia (Kalimantan, Malaysia (Sabah, Sarawak))  
Known only from three collections, this small tree is found in hillside forest and occasionally mixed dipterocarp forest in Fourth Division of Sarawak and west-central Kalimantan.  
Assessor: World Conservation Monitoring Centre  
Refs: 2147

**Knema losirensis**

Myristicaceae  
Indonesia (Sumatra)  
This tree has been found only in northern Sumatra. It is present in the Gunung Leuser Nature Reserves.  
Assessor: World Conservation Monitoring Centre  
Refs: 10460, 10547

**Knema mamillata**

Myristicaceae  
Indonesia (Kalimantan)  
Found in lowland Agathis forest on sand ridges in peat forest, this tree is known only from three collections from south Kalimantan.  
Assessor: World Conservation Monitoring Centre  
Refs: 1766, 10460

**Knema matanensis**

Myristicaceae  
Indonesia (Sulawesi)  
A tree, endemic to central Sulawesi, known only from four collections.  
Assessor: World Conservation Monitoring Centre  
Refs: 4329

**Knema minima**

Myristicaceae  
Brunei  
Known only from a restricted area in south Brunei, this small tree occurs in mixed dipterocarp forest on ridges between 50 and 350m.  
Assessor: World Conservation Monitoring Centre  
Refs: 19082

**Knema mixta**

Myristicaceae  
Viet Nam  
A montane forest tree that has been collected only once in Annam.  
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema mogaena**

Myristicaceae  
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)  
A small tree found in primary forest and mixed dipterocarp forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 875, 1766

**Knema muscosa**

Myristicaceae  
Malaysia (Sarawak)  
This species is restricted to two collections from Mount Majau, Sarawak.  
Assessor: World Conservation Monitoring Centre  
Refs: 1766, 10460

**Knema oblongata** ssp. **parviflora**

Myristicaceae  
Malaysia (Sabah)  
Known only from the type, this subspecies occurs in primary forest in Sabah.  
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema oblongata** ssp. **pedunculata**

Myristicaceae  
Malaysia (Sabah)  
Known from three collections, this subspecies is found in lowland primary forests in Sabah.  
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema oblongifolia**

Myristicaceae  
Malaysia (Peninsular Malaysia)  
A rare tree found in moist forest up to 1700m. Although populations are generally threatened by increasing settlement and logging activities, the species is conserved in Taman Negara National Park, wildlife reserves and forest reserves.  
Assessor: Chua, L.S.L.  
Refs: 10460, 11647, 19073, 19078
**Knema pachycarpa**
Myristicaceae  
Viet Nam  
Known only from the type collection, this tree is found in evergreen montane forest near Da Nang in Annam.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 10460

**Knema pectinata ssp. pectinata**
Myristicaceae  
Malaysia (Sabah, Sarawak)  
This lower montane subspecies is locally common in Sarawak and Sabah.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1766, 10460, 17176, 19078

**Knema pectinata ssp. vestita**
Myristicaceae  
Malaysia (Sabawak)  
This subspecies appears to be restricted to the Fifth Division, where it has been collected only three times.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17176

**Knema pedicellata**
Myristicaceae  
Malaysia (Sabah, Sarawak)  
A tree restricted to mixed dipterocarp forest up to an altitude of 700m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1766, 10460

**Knema percociae for. fusca**
Myristicaceae  
Brunei  
This form is known only from the type collected in Brunei.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 10460

**Knema pirei**
Myristicaceae  
Viet Nam  
This tree is confined to Cochinchina, south Viet Nam, where it is known from five collections from lower montane forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 10460

**Knema piriformis**
Myristicaceae  
Malaysia (Sabah, Sarawak)  
The species is found in montane forest especially on and around Mount Kinabalu. A single collection has also been recorded from Sarawak.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1766, 10460

**Knema plumulosa**
Myristicaceae  
Malaysia (Peninsular Malaysia)  
Found throughout Peninsular Malaysia, this species of lowland and hill rainforest is declining through the expansion of human habitation and logging activities. There are no recent collections of this species.  
**Assessor:** Chua, L.S.L.  
**Refs:** 17140, 19073, 19078

**Knema poilanei**
Myristicaceae  
Viet Nam  
Known only from type collection from Annam, this tree was found in montane forest in 1939.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 10460

**Knema psilantha**
Myristicaceae  
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)  
A tree known from two collections from the Third Division, Sarawak, a single collection from the Beaufort District, Sabah, and a recent collection from east Kalimantan.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1766, 2147, 10460

**Knema pubiflora**
Myristicaceae  
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)  
A forest tree found in the Third Division of Sarawak, Sabah and Kalimantan (including Nunukan Island).  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1766, 10460

**Knema retusa**
Myristicaceae  
Malaysia (Peninsular Malaysia)  
A tree known only from four collections from Perak. The species is very rare and has not been collected recently. It is not known whether it still exists.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 10460, 19073, 19078

**Knema riangensis**
Myristicaceae  
Indonesia (Kalimantan), Malaysia? (Sarawak)?  
Known from three or four collections, the tree is known from primary riverine forest in Bukit Raya, central Kalimantan, and from a slightly different collection from Sarawak.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 875

**Knema ridsdaleana**
Myristicaceae  
Philippines  
A small tree, known only from the type collection, found growing by a stream on ultrabasic soil in Palanan, northeast Luzon. The area receives limited protection as a wilderness area, but continues to be threatened by illegal logging and expansion of settlements.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2147

**Knema rigidifolia ssp. camerona**
Myristicaceae  
Malaysia (Peninsular Malaysia)  
A subspecies of montane forest known only from a single locality in the Cameron Highlands. The locality is under pressure from infrastructural development.  
**Assessor:** de Wilde, W.J.J.O.  
**Refs:** 10460, 19073

**Knema rigidifolia ssp. rigidifolia**
Myristicaceae  
Malaysia (Peninsular Malaysia)  
This subspecies is restricted to the mountains of Pahang.
and Selangor. The known localities are under pressure from infrastructural development. Some populations are contained within a wildlife sanctuary and protected forests within the permanent forest estate.  
Assessor: Chua, L.S.L.  
Refs: 10460, 19073

**Knema rufa**
Myristicaceae
VU D2
Brunei, Malaysia (Sarawak)
This species occurs in Sarawak and Brunei.  
Assessor: de Wilde, W.J.J.O.  
Refs: 10460

**Knema saxatilis**
Myristicaceae
VU D2
Viet Nam
This tree is found in montane forest near Da Nang, Annam.
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema sericea**
Myristicaceae
VU D2
Brunei, Indonesia (Kalimantan), Malaysia (Sarawak)
Known from five collections, the tree is found at the foot of limestone mountains.
Assessor: World Conservation Monitoring Centre  
Refs: 1766, 2147, 10460

**Knema sessiflora**
Myristicaceae
VU D2
Viet Nam
A montane forest species collected only twice, in Annam, Viet Nam.
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema squamulosa**
Myristicaceae
VU D2
Viet Nam
A tree, known only from the type collection, which was found growing in montane forest on rocky clay soil in Annam in 1923.
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema stenocarpa**
Myristicaceae
VU B1+2c
Philippines
This rare species is found on Sulu and Mindanao Islands.
Assessor: World Conservation Monitoring Centre  
Refs: 10460, 19078

**Knema stylosa**
Myristicaceae
VU A1c
Malaysia (Sabah, Sarawak)
This primary forest tree is found in north-east Sarawak and Sabah.
Assessor: World Conservation Monitoring Centre  
Refs: 875, 1766

**Knema subhirtella**
Myristicaceae
VU A1c
Malaysia (Sabah, Sarawak)
An understorey tree found in mixed dipterocarp forest in west Sabah and Sarawak.
Assessor: World Conservation Monitoring Centre  
Refs: 875, 1766

**Knema tenuinervia**
Myristicaceae
VU D2
Thailand
Found in mixed deciduous forest, this tree appears to be restricted to Kanchanaburi Province.
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema tonkinensis**
Myristicaceae
VU D2
Laos, Viet Nam
This tree occurs in montane forest in Upper Laos and Tonkin, Viet Nam.
Assessor: World Conservation Monitoring Centre  
Refs: 10460

**Knema tridactyla**
Myristicaceae
VU D2
Malaysia (Sabah)
Known only from the type collection, this small tree was found on a ridge at 400m in the Sugud Recreation Park, Penampang District.
Assessor: World Conservation Monitoring Centre  
Refs: 19082

**Knema tridactyla**
Myristicaceae
VU D2
Malaysia (Sabah)
Known only from the type collection found south of Tabilong in north Sabah, this subspecies was found on a hill at 650m.
Assessor: World Conservation Monitoring Centre  
Refs: 19082
Knema tridactyla ssp. sublaevis
Myristicaceae  VU A1c
Brunei, Malaysia (Sarawak)
This subspecies is apparently restricted to the primary lowland dipterocarp forests of the First Division, Sarawak. A collection from Brunei possibly belongs to it.
Assessor: World Conservation Monitoring Centre
Refs: 10460, 19082

Knema tridactyla ssp. tridactyla
Myristicaceae  VU A1c
Brunei, Malaysia (Sabah, Sarawak)
This subspecies occurs in the Forth Division in Sarawak, Brunei and west Sabah.
Assessor: World Conservation Monitoring Centre
Refs: 10460, 19082

Knema uliginosa
Myristicaceae  VU D2
Indonesia (Kalimantan), Malaysia (Sarawak)
This species appears to be restricted to Sarawak and west Kalimantan. It is known only from three collections.
Assessor: World Conservation Monitoring Centre
Refs: 1766, 10460

Knema viridis
Myristicaceae  VU D2
Malaysia (Sarawak)
This species is based on four specimens, all found in the Fourth and Fifth Divisions of Sarawak in lowland and hill mixed dipterocarp forest.
Assessor: World Conservation Monitoring Centre
Refs: 875, 1766

Koanophyllon panamensis
Compositae  EN C1
Panama
Originally the species was thought to be restricted to rainforest along rivers and lakesides in the central parts of Panama, including Altos de Campana National Park. Recent reports indicate that the species occurs in Bocas del Toro and La Amistad National Park on the border with Costa Rica. Occurrences are uncommon and outside protected areas populations are severely threatened by habitat loss.
Assessor: Mitré, M.
Refs: 16772

Koilodepas calycinum
Euphorbiaceae  EN B1+2c
India (Tamil Nadu)
Known from just two collections, the species occurs in widely separated localities of submontane evergreen forest.
Assessor: World Conservation Monitoring Centre
Refs: 11373, 19144

Koilodepas ferrugineum
Euphorbiaceae  CR B1+2c
Malaysia (Peninsular Malaysia)
There is some doubt over the continued existence of the species. It has been collected only once from lowland evergreen forest in Malacca. Most of the forest here has been cleared for plantations or colonisation.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Koilodepas wallichianum
Euphorbiaceae  LR/cd
Malaysia (Peninsular Malaysia)
The species is confined to Penang Hill, where it is scattered in submontane rainforest. The locality is a conserved area.
Assessor: Kochummen, K.M.
Refs: 5550, 11647, 19073

Kokia cookei
Malvaceae  EW
USA (Hawaii)
When first discovered in the 1860s, only three small trees were found in coastal dryland forest near Mahana in western Molokai. The site was central to a sheep run and the population was directly affected by browsing and trampling domestic and feral stock. By 1918 all the specimens in the wild had died. Some years after, the only known cultivated tree died without producing viable offspring and the species was thought extinct. However, living material has been obtained from the branch of a cultivated specimen discovered in 1970, and grafted onto _K. kauaiensis_. The genus consists of four species, all endemic to Hawaii and either extinct or critically endangered. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19089

Kokia drynarioides
Malvaceae  CR D1
USA (Hawaii)
A species from a small genus endemic to the Hawaiian Islands, reduced to a few individuals in dry forest on lava fields at Puuwaawaa and Huehue on Hawaii. It persists in cultivation. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Kokia kauaiensis
Malvaceae  CR C2a
USA (Hawaii)
At one time this species was known only from a single tree in Koiloha Canyon. It is now the most numerous member of the genus. At present six populations are known from rainforest in Paikai, Kuia, Mahaloloa, Kalalau, Pohakuao and Koaie Valleys in the west of Kauai. All of these are on state land. Estimates of the total population size range from 105 to 145, the largest containing no more than 50 individuals. Invasive plants and the activities of feral goats, deer and rats are the major threats to remaining populations. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19036, 19086

Kokia lanceolata
Malvaceae  EX
USA (Hawaii)
A species from a small genus endemic to the Hawaiian Islands. Originally known from the hills of Makaku, Koko Head and Waiu Valley on Oahu, it was first recorded in 1888 and became extinct shortly afterwards. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372
Kokoona coriacea  
Celastraceae  
VU D2  
Malaysia (Peninsular Malaysia, Sarawak)  
This lowland forest species is known from the type collected from Perak, Peninsular Malaysia, and another recent collection from Niah Cave National Park, Sarawak. Trees of this genus are cut for mata ulat timber which is used locally. The species is threatened by the large-scale clearance of the forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 5550, 11145, 11647, 19017, 19073

Kokoona leucoclada  
Celastraceae  
VU D2  
Malaysia (Sabah)  
Endemic to Sabah, the species has been collected only once from Ranau and once from Sandakan in lowland forest. Trees of the genus are cut for mata ulat timber, which is used locally. The species is threatened by the large-scale clearance of the forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 11145, 19017

Kokoona littoralis var. bakoensis  
Celastraceae  
VU D2  
Malaysia (Sarawak)  
Locally abundant in Bako National Park, this variety is found in heath forest. The species is cut for mata ulat timber.  
Assessor: World Conservation Monitoring Centre  
Refs: 11145, 19017

Kokoona littoralis var. longifolia  
Celastraceae  
VU D2  
Malaysia (Sarawak)  
This variety is known only from the type collection found in lowland forest in Limbang. The species is cut for mata ulat timber for local use.  
Assessor: World Conservation Monitoring Centre  
Refs: 11145, 19017

Kokoona sabahana  
Celastraceae  
VU D2  
Malaysia (Sabah)  
Occurring infrequently in lowland swamp and hill forest, this small tree is known only from three collections from Nabawan, Tawau and Sandakan.  
Assessor: World Conservation Monitoring Centre  
Refs: 11145, 19017

Kokoona sessilis  
Celastraceae  
VU A1c+2c, D2  
Malaysia (Peninsular Malaysia)  
A rare tree inhabiting rainforest between 60 and 730m in the states of Kelantan, Terengganu and east Johore. It is protected in Taman Negara National Park, but elsewhere is threatened by large-scale forest clearance.  
Assessor: World Conservation Monitoring Centre  
Refs: 5550, 8464, 11145, 11647, 19073

Koompassia excelsa  
Leguminosae  
LR/cd  
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Philippines, Thailand  
One of the tallest rainforest trees ever reported, reaching up to 85m, found along rivers and in valleys in lowland primary forest and often in secondary growth. The trees are protected from cutting in Kalimantan because wild bees often build nests in the branches. It is also protected in Sarawak under the Wildlife Protection Bill of 1990. There is concern over its conservation status in Sabah. However, Koompassia is currently gaining importance in trade because of the shortage of heavy hardwood timber.  
Assessor: Asian Regional Workshop  
Refs: 4919, 12937, 14573, 17214, 19026, 19072

Koompassia grandiflora  
Leguminosae  
VU A1c+2cd  
Indonesia (Irian Jaya), Papua New Guinea  
A primary rainforest tree occurring on coastal plain foothills and stony low hills in Vogelkop, Irian Jaya and the Morobe, Gulf and Central Provinces of Papua New Guinea. Observations of active exploitation for the timber of this species in Papua New Guinea were made in the 1960s; the timber continues to be in high demand and is heavily exploited in areas subject to logging. As it occurs in primary forest and in readily accessible areas, the species is considered highly vulnerable.  
Assessor: Eddowes, P.J.  
Refs: 14573, 19057, 19072, 19114

Koompassia malaccensis  
Leguminosae  
LR/cd  
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Singapore, Thailand  
This very large tree is found in freshwater peat-swamp forest, usually below 150 m. It is a useful timber species for heavy construction. Koompassia timber is currently gaining importance in trade because of the shortage of heavy hardwood timber. It is protected in Sarawak under the Wildlife Protection Bill of 1990.  
Assessor: Asian Regional Workshop  
Refs: 2422, 9199, 12827, 12937, 14573, 17140, 17214, 19057, 19072

Kopsia lanceifolia  
Apocynaceae  
VU D2  
Malaysia (Sabah)  
A tree known by only a single collection from Sabah. The taxonomy of this genus is in need of revision.  
Assessor: World Conservation Monitoring Centre  
Refs: 19117

Kopsia larutensis  
Apocynaceae  
DD  
Malaysia (Peninsular Malaysia, Sarawak), Thailand  
A rare shrub to small tree found in lowland rainforest. In Peninsular Malaysia it is apparently restricted to the Kedang Saiong range in Perak. The taxonomy of this genus is in need of revision.  
Assessor: World Conservation Monitoring Centre  
Refs: 19073, 19117

Kopsia profunda  
Apocynaceae  
DD  
Malaysia (Peninsular Malaysia)  
This species is known only from three herbarium collections. The taxonomy of the genus is in need of revision.  
Assessor: World Conservation Monitoring Centre  
Refs: 19117

Kopsia scortechinii  
Apocynaceae  
DD  
Malaysia (Peninsular Malaysia)  
A medium-sized tree of rainforest in Perak. It has been
Kopsia singapurensis
Apocynaceae  VU B1+2c
Malaysia (Peninsular Malaysia), Singapore
A tree of up to 5m height, occurring in lowland rainforests and swamp forests of Perak, Selangor, Pahang, Negeri Sembilan, Malacca, Johore and Singapore. The main threat is encroaching settlements.
Assessor: Chua, L.S.L.
Refs: 8464, 19073, 19117

Kopsia slesiana
Apocynaceae  VU D2
Malaysia (Sarawak)
This species is known from the type collection only. However, the taxonomy of this genus is in need of revision.
Assessor: World Conservation Monitoring Centre
Refs: 19117

Kopsia tenuis
Apocynaceae  VU D2
Malaysia (Sarawak)
A species known only from the type collection. However, the taxonomy of this genus is in need of revision.
Assessor: World Conservation Monitoring Centre

Kostermansia malayana
Bombacaceae  VU B1+2c
Malaysia (Peninsular Malaysia)
This species occurs in areas of swampy hill forest. Habitat reductions have resulted from logging and increasing agriculture and settlement.
Assessor: Chua, L.S.L.
Refs: 17140, 19073

Kostermanthus malayus
Chrysobalanaceae  EN B1+2c
Malaysia (Peninsular Malaysia)
Confined to a single locality on the Kedah–Perak border, this species occurs in lowland rainforest, where it is under pressure from increasing settlement of the area.
Assessor: Chua, L.S.L.
Refs: 19073

Kochubaea montana
Rubiaceae  VU D2
Peru
This forest species is recorded only from the type collection below 2000m in the department of San Martin. There is some question about whether it is synonymous with K. semisertica.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Kotschy plaeyphylla
Leguminosae  VU B1+2b
Tanzania
A gregarious species, occurring in forest or grassland on upland exposed ridges in the vicinities of Udzungwa and Njombe in east Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356

Kraussia speciosa
Rubiaceae  VU B1+2b
Kenya, Tanzania
A species confined to areas of moist coastal forest from the Shimba Hills, Dzombo and Witu in Kenya to eastern Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 8814

Kroenia pilotoana
Myrtaceae  VU D2
Cuba
Very rare, this small tree is locally confined to parts of the Sierra de Nipe mountain range in Holguin and Santiago de Cuba Provinces.
Assessor: Areces-Mallea, A.E.
Refs: 18485, 19149

Labordia hirtella
Loganiaceae  LR/nt
USA (Hawaii)
A species which is highly variable. Scattered individuals are found in various forest types up to 1830m on eastern Kauai, the Koolau Mountains on Oahu, Molokai, Lanai, Maui and Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Labordia kaalae
Loganiaceae  EN C2a
USA (Hawaii)
A shrub or small tree restricted to the Waianae Mountains on Oahu, where it is found in diverse forest types at altitudes between 450 and 950m.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Labordia lydygatei
Loganiaceae  EN C2a
USA (Hawaii)
Known from few collections, the species is restricted to the Wahiawa Mountains on Oahu. It is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Labordia tinifolia var. lanaiensis
Loganiaceae  EN C2a
USA (Hawaii)
One of three varieties. Populations are known from rainforest on Lanai and from Mapulehu Valley on Molokai.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Labordia tinifolia var. wahawaensis
Loganiaceae  CR B1+2c, C2ab, D1
USA (Hawaii)
The total population is restricted to private land along forested streamside in the Wahiawa drainage on Kualoa. Once estimated to contain 100 plants, only 20 or 30 plants survived Hurricane Iniki. Feral pigs and invasive plants are the primary threats to the habitat. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 19036, 19086
Lachanodes arborea
Compositae
St Helena

Once a common tree, occurring on the central ridge between 600 and 800m, the species was thought to have become extinct until three old trees and some seedlings were discovered in 1976 in pastureland above Osborne's Cottage. Seedlings have since been raised and planted out. It is a short-lived tree, which takes considerable effort to conserve in cultivation. The genus is monotypic.
Assessor: Cronk, Q.C.B.
Refs: 9954, 16700, 19081

Lacinastea lucidum
Lacinasteaceae
Brazil (Pará, São Paulo)

An Atlantic forest species which is closely related to L. pubescens, also an endemic to Brazilian Atlantic forest but more widely ranging in five states. The separation of the two taxa in São Paulo poses such difficulty that it is possible they may be considered taxonomically the same species. This taxon is recorded in Ilha do Cardoso State Park in São Paulo.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 19099

Lacunaria panamensis
Quinaceae
Costa Rica, Honduras, Panama
Assessor: Nelson, C.
Refs: 7272, 7980, 13995, 14873

Ladenbergia acutifolia
Rubieae
Peru

A species which is known only from the type collected in the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ladenbergia ferruginea
Rubieae
Peru

Known only from the type collection, the species occurs in lowland rainforest along a riverside in the department of Puno.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ladenbergia gavanensis
Rubieae
Peru

The taxonomic status of the species is uncertain. It is known only from the type collection from the department of Puno.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ladenbergia pavonii
Rubieae
Ecuador

An Ecuadorian endemic of the High Andean regions in Imbabura, Morona-Santiago and Azuay. The habitat of this species is cloud forest between 2260m and 3450m.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Ladenbergia stenocarpa
Rubieae
Peru

The species is known only from the type collection from the department of Cajamarca.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ladenbergia ulei
Rubieae
Peru

A lowland grassland species which has been recorded just a single time from the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Laetia micrantha
Flacourtiaeae
Panama

The species is known only from a narrow strip of lowland semi-evergreen rainforest running the length of the province of Darién. A large part of the population runs close to the border with, and is likely to extend into, Colombia. The species is uncomom but utilised locally as a source of fuel and edible fruit. All known populations are within Darién National Park, where they are officially protected but under some threat from gold mining and localised logging.
Assessor: Mitre, M.
Refs: 7272, 7980, 16772

Lafoensia replicata
Lythraceae
Brazil (Bahia, Brazilia District Federal, Goiás, Minas Gerais, São Paulo)

A rainforest species with sparse distribution. Populations in Atlantic forest have declined extensively, especially in Bahia, as the habitat has been cleared and logged.
Assessor: Cavalcanti, T.B.
Refs: 19096

Lagarostrobos franklinii
Podocarpaceae
Australia (Tasmania)

Huon pine, one of the longest living trees in the world, is found mostly in small stands in rainforest associated with the river systems of south-west Tasmania. Populations retreated during the Last Glacial and were heavily logged in the more recent past. Whilst most of the range is protected within a World Heritage Site, significant areas are open to the persistent threats of mining, logging, hydroelectric schemes and fire regimes. A small proportion of trees are sexually reproductive in one season, a disproportionate number of them being the oldest trees. Regrowth by vegetative reproduction is, however, very strong.
Assessor: SSC Conifer Specialist Group
Refs: 374, 8032, 18833

Lagerstroemia anisoptera
Lythraceae
Malaysia (Peninsular Malaysia)

This rare species is a small tree confined to the lowland tropical rainforests of north-west Peninsular Malaysia.
Assessor: Chua, L.S.L.
Refs: 8464, 19073
**Species Summaries**

**Lagerstroemia intermedia**
Lythraceae  
VU B1+2ce  
China (Yunnan), Thailand  
A species found at forest edges and along roadsides between 800 to 1500m in south and south-west Yunnan and north Thailand. In Yunnan, populations are scattered and very small. It appears to be naturally rare but loss of habitat and cutting for fuelwood has contributed significantly to the present scarcity.  
Assessor: Sun, W.  
Refs: 1818, 11847, 19055

**Lagerstroemia langkawiensis**
Lythraceae  
EN B1+2c  
Malaysia (Peninsular Malaysia)  
A rare species found in areas of limestone, quartzite and shale on Langkawi Island, Kedah. This small tree is scattered in open lowland rainforest, in an area which continues to be developed for tourism and other land uses.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799

**Lagerstroemia minuticaarpa**
Lythraceae  
EN B1+2c  
India (Assam, Sikkim)  
Known from just two forest localities in Kerempani, Assam, and Singtam, Sikkim, the species was last collected in 1938.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799

**Lagynias pallidiflora**
Rubiaceae  
VU B1+2b  
Kenya, Tanzania  
A species confined to areas of moist coastal forest from the Shimba Hills, Buda and Arabuko-Sokoke in Kenya to eastern Tanzania and Pemba Island.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 6396, 8284

**Lagynias rufescens ssp. angustiloba**
Rubiaceae  
VU B1+2b, D2  
Tanzania  
Occurring in moist submontane forest, this subspecies is known only from Mwanihana in the North Udzungwa Mountains.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 6396, 8284

**Lannea schweinfurthii var. acutifoliolata**
Anacardiaceae  
LR/nt  
Kenya, Tanzania  
A coastal forest taxon located in pockets of remaining forest in a range stretching from south-east Kenya to eastern Tanzania, Zanzibar and the Pemba Islands. The type variety is widespread.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 6396, 8284

**Lannea transulta**
Anacardiaceae  
VU D2  
Yemen (Socotra)  
Scattered small populations occur in dry woodland and shrubland in mountain areas. They are under no immediate threat.  
Assessor: Miller, A.G.  
Refs: 2354, 19083

**Lannea welwitschii var. ciliolata**
Anacardiaceae  
LR/nt  
Kenya, Tanzania  
A forest tree existing in remaining areas of moist low-altitude forest in south-east Kenya and eastern to south-west Tanzania. It is reported to be common in Diani in Kenya. The type variety is distributed from Central to West Africa.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 2361, 3356

**Laplacea curtana**
Theaceae  
CR B1+2c  
Cuba  
A very uncommon tree, up to 15m tall, occurring in lowland and hill semi-deciduous forest of Pinar del Rio and the Isla de Pinos. The area is under constant pressure from cutting and clearing. The accepted genus of the taxon is now Gordonia.  
Assessor: Areces-Mallea, A.E.  
Refs: 9522, 11403, 19149

**Laportea unrentissima**
Urticaceae  
EN B1+2c  
China (Guangxi, Yunnan), Viet Nam  
Ranging in stature from a small shrub to a tree of 15m, this fast-growing species is a prominent component of monsoon forest on limestone hills between 700 and 1000m. Its range is concentrated in the border region of Guangxi, Yunnan and Viet Nam. Additional populations exist in the south-west of Yunnan. Continuous declines and degradation of the habitat have caused the species to disappear from large parts of its range.  
Assessor: Sun, W.  
Refs: 1818, 11847, 19055

**Larix decidua var. polonica**
Pinaceae  
VU B1+2c  
Poland, Romania, Ukraine  
A variety with a patchy distribution confined to remaining areas of natural forest. Young individuals were noted as being rare as early as 1930. The forest does not appear to be healthy and has been degraded by war and exploitative activities. Populations in the Carpathians may fare better.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 2162, 6858, 7222, 9887

**Larix griffithiana var. speciosa**
Pinaceae  
LR/nt  
China (Sichuan?, Xizang?, Yunnan), Myanmar  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 11191, 13041

**Larix mastersiana**
Pinaceae  
VU A1cd  
China (Sichuan)  
Once occurring in large stands, the species has been reduced to isolated sparse woodlands and mixed forest at 2300–3500m along various river systems. The habitat continues to deteriorate because of overcutting and logging.  
Assessor: SSC Conifer Specialist Group  
Refs: 11242, 11847, 13041

**Larix potaninii var. himalaica**
Pinaceae  
VU D2  
China (Xizang), Nepal?  
A taxon restricted to the Himalayas in Xizang Zizhiqu,

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Lasianthus ciliatus
Rubiaceae VU D2
India (Tamil Nadu)
A small tree, mainly known from areas of submontane forest in the Nilgiris, but also recorded from a single locality in the Anaimalai Hills.
Assessor: World Conservation Monitoring Centre
Ref: 19114

Lasianthus gardneri
Rubiaceae VU B1+2c
Sri Lanka
During the extensive National Conservation Review forest surveys, this species was recorded in seven forests.
Assessor: World Conservation Monitoring Centre
Ref: 19112

Lasianthus grandifolius
Rubiaceae VU B1+2b, D2
Tanzania
The only population known occurs at 2050m elevation in moist evergreen forest on the North Udzungwa Mountains at Bandwa.
Assessor: Lovett, J. & G.P. Clarke
Ref: 3356, 8814

Lasianthus kilimandscharicus ssp. laxinervis
Rubiaceae VU B1+2b
Tanzania
Confined to the Uluguru Mountains, this subspecies occurs in moist evergreen montane forest. It is not, in fact, thought to descend from *L. kilimandscharicus* and may attain full species status.
Assessor: Lovett, J. & G.P. Clarke
Ref: 3356, 8814

Lasianthus oliganthus
Rubiaceae LR/cd
Sri Lanka
A small tree or shrub, restricted to lowland wet evergreen forest in south-west Sri Lanka. It is a dominant component in areas of Sinharaja Biosphere Reserve.
Assessor: World Conservation Monitoring Centre
Ref: 9176, 17195, 18515

Lasianthus pedunculatus
Rubiaceae VU B1+2b
Tanzania
Assessor: Lovett, J. & G.P. Clarke
Ref: 3356, 8814

Lasianthus rhinophyllus
Rubiaceae CR B1+2c
Sri Lanka
During the extensive National Conservation Review forest surveys, only two individuals were found within a single forest reserve in Ratnapura District.
Assessor: World Conservation Monitoring Centre
Ref: 8203, 18796, 19112

Lasianthus rostratus
Rubiaceae VU B1+2c
India (Kerala)
A small tree, known only from a few collections taken from forest between 600 and 1000m between the Anaimalai Hills and the Travancore range.
Assessor: World Conservation Monitoring Centre
Ref: 19144

Lasianthus tomentosus
Rubiaceae EN B1+2c
Indonesia (Java), Singapore
A species confined to Mount Salak near Bogor city in Java. The population occurs at 1700m. There are intense pressures of habitat clearance, degradation and cutting. The Singapore record needs confirmation.
Assessor: World Conservation Monitoring Centre
Ref: 9078, 9199

Lasianthus varianus
Rubiaceae EN B1+2c
Sri Lanka
During the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, this species was found in three forest localities including the Peak Wilderness Wildlife Sanctuary.
Assessor: World Conservation Monitoring Centre
Ref: 19112

Lasianthus wallacei
Rubiaceae VU B1+2b
Tanzania
An endemic of the Uluguru Mountains, occurring in moist evergreen montane forest.
Assessor: Lovett, J. & G.P. Clarke
Ref: 3356, 8814

Lasiochlamys hurlimannii
Flacourtiaceae EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Ref: 10351

Lasiochlamys mandjeliana
Flacourtiaceae VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Ref: 10351

Lasiochlamys pseudocoriacea
Flacourtiaceae VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Ref: 10351

Lasiochlamys trichostemona
Flacourtiaceae LR/cd
New Caledonia
Assessor: Jaffré, T. et al.
Ref: 10351

Lasiococca malaccensis
Euphorbiaceae VU D2
Malaysia (Peninsular Malaysia)
A species of lowland evergreen rainforest, known only from a single collection from Batang Malaka Permanent Forest Reserve in Malacca.
Assessor: Kochummen, K.M.
Ref: 8464, 19073
Lasiocroton fawcettii
Euphorbiaceae
VU B1+2c
Jamaica
Occurrences are known from Westmoreland, Hanover and Trelawny Parishes. The species has a local distribution, confined to areas of thickets and woodlands on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Lasiocroton harrisi
Euphorbiaceae
VU B1+2c
Jamaica
Similar in many respects to L. fawcettii, the species occurs in thickets on limestone hills in a narrow altitudinal band in the parishes of Clarendon and St Ann.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Lasiocroton macrophyllus
Euphorbiaceae
LR/nt
Jamaica
Frequently common, the species occurs in dry thickets on limestone along the south coast.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Lasiocroton trelawniensis
Euphorbiaceae
EN B1+2c
Jamaica
Confined to Trelawny, this species has a localised distribution on a wooded limestone hilltop.
Assessor: Kelly, D.L.
Refs: 5653, 19085

Lasiodiscus mildbraedii ssp. ferrugineus
Rhamnaceae
VU B1+2c
Kenya
A shrub or tree of lowland dry evergreen forest, known from localities in Witu, Mangea and Arabuku-Sokoke.
Assessor: World Conservation Monitoring Centre
Refs: 6396, 12067

Lasiodiscus rozeae
Rhamnaceae
VU D2
São Tomé & Príncipe (São Tomé)
The species has not been found since it was collected in 1954 in the south-east of the island. It is not known whether there is still an extant population. Extensive areas of remote forest remain to be explored. There are no obvious threats to the habitat at present.
Assessor: World Conservation Monitoring Centre
Refs: 2421, 18501

Latania loddigesii
Palmae
EN C2a
Mauritius
Remaining wild populations are confined to offshore islands, in coastal savanna. Regeneration has been good since the eradication of goats and rabbits. The species is widely cultivated as an ornamental.
Assessor: Johnson, D.
Refs: 19118

Latania lontaroides
Palmae
EN A1c
Réunion
Occurring on the coast between Petite Ile and Saint-Philippe, the species was once common but has declined in extent through increasing agriculture and settlement. It is traded internationally as an ornamental.
Assessor: Johnson, D.
Refs: 19118

Latania verschaffeltii
Palmae
EN C2a
Mauritius (Rodrigues)
Confined to Fond la Bonté, Baie aux Hütres, remaining populations account for about 500 individuals. There is almost no evidence of regeneration and the harvesting of leaves for use as thatch is not controlled, despite regulations.
Assessor: Johnson, D.
Refs: 19118

Laurelia sempervirens
Monimiaceae
LR/nt
Chile (Bíobío, La Araucanía, Los Lagos, Maule, O'Higgins)
One of the major components of *laurisilva, occurring over a wide altitudinal range. Threats exist from grazing, fires and habitat conversion, but recent evidence suggests the *laurisilva is now expanding.
Assessor: González, M.
Refs: 11449, 16328

Laurus azorica
Lauraceae
LR/nt
Morocco, Portugal (Azores, Madeira), Spain (Canary Is.)
One of the major components of *laurisilva, occurring over a wide altitudinal range. Threats exist from grazing, fires and habitat conversion, but recent evidence suggests the *laurisilva is now expanding.
Assessor: Employee
Refs: 19131, 19199

Lavoixia macrocarpa
Palmae
CR D1
New Caledonia
An endemic to Mont Panié, occurring in wet forest on a steep rocky slope at 500m.
Assessor: Jaffré, T. et al.
Refs: 10351, 19118

Lebronnecia kokioides
Malvaceae
EN D1
French Polynesia (Marquesas Is.)
A small tree which at one time was thought to be reduced to a single individual surrounded by a few seedlings on Tahuata. A small colony covering a few hectares has now been found on Mohotane, a nature reserve. Although feral sheep are present on the island, they appear to find the plant unpalatable.
Assessor: Florence, J.
Refs: 14513, 15251

Lecaniodiscus punctatus
 Sapindaceae
EN B1+2c
Cameroon, Ghana
Little is known about this unusual species. It is usually found near stream banks in moist semi-deciduous forest. In Ghana, few localities are known, all contained within the vicinity of Baku and Supong Forest Reserves, where deforestation has been severe.
Assessor: Hawthorne, W.
Refs: 8369, 12061, 15251
**Lecointea ovalifolia**
Leguminosae
Peru
Recorded only from the type collection, the species occurs in lowland Amazon forest in the department of San Martin.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Lecontedoxa nogo**
Sapotaceae
VU D2
Gabon
A species so far collected only from Feman Vaz. Forests in Gabon have not been well explored botanically and it is possible the species is more widespread. Most areas, however, are under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 14958, 15790

**Lechys barneyi**
Lecythidaceae
VU D2
Brazil (Amazônicas)
Several collections have been made of this species, but it is thought only to exist in three populations in open forest on white sand in central Amazonia.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

**Lechys brancoensis**
Lecythidaceae
VU B1+2c
Brazil (Roraima), Guyana
A small savanna tree, known from a few collections from the Roraima territory of Brazil and adjacent Guyana.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980

**Lechys lanceolata**
Lecythidaceae
LR/cd
Brazil (Bahia, Espírito Santo, Goiás, Pernambuco, Rio de Janeiro)
A relatively widely occurring species of Atlantic coastal forest. It is known to occur in Linhares Forest Reserve.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632, 9866

**Lechys lurida**
Lecythidaceae
LR/cd
Brazil (Amazonas, Bahia, Espírito Santo, Pará, Pernambuco, Piauí, Rio de Janeiro, Sergipe)
Although the species is wide-ranging, its habitat has undergone serious deterioration and declines. It is known to occur in the Jari Genetic Reserve and in Linhares Forest Reserve.
Assessor: Pires O'Brien, J.
Refs: 3204, 3791, 9632

**Lechys parviflora**
Lecythidaceae
VU D2
Brazil (Amazonas)
A canopy tree, known only from central Amazonia, occurring in non-flooded forest.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

**Lechys prancei**
Lecythidaceae
EN D1
Brazil (Amazonas)
Confined to non-flooded forests in the vicinity of Manaus, this species is under some pressure from urban expansion. It is known to occur in the Ducke Forest Reserve.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

**Lechys retusa**
Lecythidaceae
LR/nt
Brazil (Amazônicas)
A canopy tree confined to non-flooded forest in central Amazonia. It is found in the Ducke Forest Reserve and INPA Experimental Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 3791, 7980, 9632

**Lechys strumulos**
Lecythidaceae
VU B1+2c
Brazil (MINAS GERAIS, RIO DE JANEIRO)
Known from few localities, the species is scattered in secondary deciduous forest and savanna-like vegetation.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

**Lechys schwackei**
Lecythidaceae
VU D2
Brazil (Minas Gerais, Rio de Janeiro)
Known from few localities, the species is scattered in secondary deciduous forest and savanna-like vegetation.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

**Lecythis serrata**
Lecythidaceae
LR/nt
Brazil (Amazonas, Pará, Rondônia)
Evidence from collections indicates this is a wide-ranging species, scattered in non-flooded forest.
Assessor: Pires O'Brien, J.
Refs: 3791, 7980, 9632

**Leeninctoria**
Lecaeceae
LR/nt
São Tomé & Príncipe (São Tomé)
This shrub or small tree is common and well known for its various local uses. It occurs in secondary forest up to 1060m.
Assessor: World Conservation Monitoring Centre
Refs: 2421, 2724, 10080

**Leineria floridana**
Leineriaceae
LR/nt
USA (Arkansas, Florida, Georgia, Missouri, Texas)
A shrub or small tree with a very scattered distribution in three widely separated areas. Occurring along muddy riverbanks or in sawgrass marshes, usually within reach of seawater inundations, the species is known from south-east Missouri and eastern Arkansas, where it is locally common, south-east Texas, southern Georgia and northern Florida. There is no evidence of any serious declines in the population. The family is monotypic.
Assessor: World Conservation Monitoring Centre
Refs: 9254, 19163

**Lemurophoenix halleuxii**
Palmae
EN A1c, D1
Madagascar
An endemic palm of Madagascar known only from two populations, totalling an estimated 50 individuals. They occur in submontane primary forest on steep slopes and in a deep narrow valleys at elevations between 200m
and 450m. This species is used as an ornament for minor international, national and local trade.

Assessor: Dransfield, J. & H.J. Beenje

Refs: 18986, 19118

**Lennea viridiflora**

Leguminosae

Costa Rica, El Salvador, Mexico, Nicaragua, Panama

The distribution of this species apparently extends the length of Central America from the border with Colombia to Mexico. The species occurs in lowland rainforest and is generally scarce outside protected areas. Logging, encroaching agriculture and settlements have caused the habitat to decline.

Assessor: Mitré, M.

Refs: 2965, 7980, 15037, 16772

**Lediothamnus fokii**

Podocarpaceae

Argentina (Chubut, Neuquén, Rio Negro), Chile (Aisén, Los Lagos, Magallanes)

A dwarf conifer and the only member of the genus on the continent. Its nearest relatives are in New Zealand. It occurs as a pioneer in upland scrub in acidic bogs, often with Fitzroya and Pilgerodendron. The area is vulnerable to fires and habitat degradation.

Assessor: SSC Conifer Specialist Group

Refs: 278, 374, 5112, 8032, 15415

**Lepinia taetens**

Apocynaceae

French Polynesia (Society Is.)

An endemic to Tahiti and Moorea.

Assessor: Florence, J.

Refs: 14513

**Leptacina delagoensis ssp. bussei**

Rubiacceae

Tanzania

Occurring in dry coastal forest, this subspecies is known from two populations confined to the remaining forested areas on the Rondo Plateau and Lake Lutamba. The forest on the Rondo Plateau has been heavily disturbed by previous activities, especially logging and shifting cultivation. It is thought that only 5km² of the original undisturbed forest remains. Forest management work in the forest reserve is discouraging further illegal activities and encroachment. Lake Lutamba has been largely cleared of forest except for 10km² contained within the Litipo Forest Reserve.

Assessor: Lovett, J. & G.P. Clarke

Refs: 3356, 10961

**Leptacina papyrophloea**

Rubiacceae

Tanzania

A coastal forest species, which is now thought to be confined to undisturbed areas of the Rondo Forest Reserve (140km²). Disturbance in the past has been severe as a result of logging, planting of exotic timbers, shifting cultivation and wood collection. The presence of active forestry measures is helping to discourage local exploitation.

Assessor: Lovett, J. & G.P. Clarke

Refs: 3356, 10961, 16796

**Leptostylis gatopenensis**

Sapotaceae

New Caledonia

Assessor: Jaffré, T. et al.

Refs: 10351

**Leptostylis goroensis**

Sapotaceae

New Caledonia

Assessor: Jaffré, T. et al.

Refs: 10351

**Leptostylis multiflora**

Sapotaceae

New Caledonia

Assessor: World Conservation Monitoring Centre

Refs: 10351

**Leptostylis petiolata**

Sapotaceae

New Caledonia

Assessor: World Conservation Monitoring Centre

Refs: 10351

**Lettowianthus stellatus**

Annonaceae

Kenya, Tanzania

A monotypic genus, known from the Shimba Hills and Miongoni in Kenya and areas of dry coastal forest in eastern Tanzania. The taxonomy of the Kenyan population is not confirmed.

Assessor: Lovett, J. & G.P. Clarke

Refs: 3356, 9198, 9302

**Leucadendron argenteum**

Proteaceae

South Africa (Western Cape)

Scattered subpopulations are known from the slopes of Table Mountain from Lion's Head to Orange Kloof, Cape Peninsula. There are also several subpopulations, which have probably been planted, including those on the Helderberg, Simonsberg and Paarl Mountain. These are excluded from the evaluation. The species grows on moist, usually south-facing slopes, on granite clays in mountain *fynbos* and on the margins of fynbos forest patches. Population counts indicate that there are more than 10,000 mature individuals. The expansion of Cape Town and the establishment of tree plantations continue to cause reductions in population numbers. There is also concern in the mixing of genetic pools by the extensive planting of the species and increased fire frequency in some areas. Only about 10% of the subpopulations are considered to be viable and are showing signs of active recruitment at present. Almost half of the entire population occurs within protected areas, all of which suffer from invasions by alien plant species. Alien eradication programmes are in place.


Refs: 689, 19218

**Leucadendron discolor**

Proteaceae

South Africa (Western Cape)

A tall shrub, sometimes growing to the size of a tree, confined to the western side of the Piketberg range. It grows on rocky soils derived from sandstone in mountain *fynbos*. The total population of between 1000 and 5000 mature individuals is fragmented into three or four major subpopulations and a number of scattered...
individuals, occurring within an area of 20\text{km}^2 (*AOO). The species is threatened in the eastern parts of its range by agricultural activities, particularly the planting of fruit orchards. Frequent fires could also be a problem, as they may not allow the species sufficient time to regenerate from seed. The only form of protection received is within private nature reserves. 

Refs: 689, 19218

**Leucadendron strobilinum**
Proteaceae
South Africa (Western Cape)
A shrub or small tree confined to the Cape Peninsula, where it occurs from Table Mountain to Kommetjie. It grows on south-facing, damp, rocky slopes in mountain *fynbos*. The larger dense subpopulations occur mainly on the Table Mountain and Constantiaberg ranges, with the southern Peninsula subpopulations being small and scattered. The area of occupancy is only about 150 km\textsuperscript{2} and the estimated population is 5000 mature plants. More than 50% of the subpopulations are protected in nature reserves and there is no evidence for decline. Invasive alien species could pose a threat as scattered pine trees have been recorded from a number of localities. Frequent fires could also be a problem, as they may not allow the species sufficient time to regenerate from seed.

Refs: 689, 19218

**Leucacena confertiflora var. adenotheloidea**
Leguminosae
Mexico
The more restricted in range of the two varieties of this Mexican endemic. Few wild populations are known and there are strong pressures from grazing and collection of the pods for their edible seeds. Trees are occasionally cultivated for the production of pods.

Assessor: Hughes, C.
Refs: 10207

**Leucacena confertiflora var. confertiflora**
Leguminosae
Mexico
Geographically restricted, both the varieties of this species are known from only a few wild populations. Grazing pressure and the harvesting of pods for their edible seeds put considerable pressure on the remaining populations. Trees are occasionally cultivated for the production of pods.

Assessor: Hughes, C.
Refs: 10207

**Leucacena cuspidata**
Leguminosae
Mexico
A species confined to the forest understory within a restricted range. It is only occasionally found outside forest areas. Grazing pressures have reduced the species distribution to less accessible areas. Trees are often protected within the traditional agricultural system.

Assessor: Hughes, C.
Refs: 10207

**Leucacena greggii**
Leguminosae
Mexico
A species restricted in range, low in numbers and generally reduced to inaccessible areas because of the pressures of constant grazing.

Assessor: Hughes, C.
Refs: 10207

**Leucacena involucrata**
Leguminosae
EN B1+2c
Mexico (Sonora)
This species is poorly known but seemingly very restricted in range. During the last 30 years it has been recorded from a single site in central Sonora.

Assessor: Hughes, C.
Refs: 10207

**Leucacena lempirana**
Leguminosae
VU B1+2c
Honduras
A highly localised species confined to northern Honduras in areas of degraded forest. The protection afforded the species within traditional agroforestry systems mitigates the threats to remaining stands.

Assessor: Hughes, C.
Refs: 10207

**Leucacena leucocephala**
Leguminosae
LR/cd
Guatemala
This subspecies is uncommon and confined to a habitat which is restricted in extent and severely degraded. However, trees are protected and also cultivated in local agroforestry systems for the production of pods bearing edible seeds.

Assessor: Hughes, C.
Refs: 10207

**Leucacena magnifica**
Leguminosae
EN B1+2c, C1+2a
Guatemala
The total population is restricted to fewer than 400 individuals, occupying an area of less than 400 km\textsuperscript{2} in south-eastern Chiquimula. The species is unprotected and exposed to pressures of grazing and habitat degradation.

Assessor: Hughes, C.
Refs: 10207

**Leucacena matudae**
Leguminosae
EN B1+2c
Mexico
A species which is confined to a very small area of remaining dry forest. The stands are exposed to pressures from grazing and habitat degradation.

Assessor: Hughes, C.
Refs: 10207

**Leucacena pueblana**
Leguminosae
VU B1+2c
Mexico (Puebla)
An endemic species of the Tehuacan Valley. It is never found in abundance. Populations have been largely reduced to areas which escape from the pressure of grazing.

Assessor: Hughes, C.
Refs: 10207

**Leucacena salvadorensis**
Leguminosae
LR/cd
El Salvador, Honduras, Nicaragua
The species occurs relatively commonly across southern
Honduras and northern Nicaragua with a very restricted population in eastern El Salvador. The habitat is severely degraded in places but the species is frequently protected within traditional agroforestry systems.
Assessor: Hughes, C.
Refs: 10207

**Leuocloron foederale**
Leguminosae
VU D2
Brazil (Brazilia Distrito Federal)
Known only from Chapada do Contagem, Distrito Federal, the species is found in *cerrado* and gallery woodland.
Assessor: World Conservation Monitoring Centre
Refs: 5994

**Leuocloron minorum**
Leguminosae
DD
Brazil (Minas Gerais)
A tree known only from two collections, the most recent dated 1906, taken from *campo* in an unspecified location in Minas Gerais.
Assessor: World Conservation Monitoring Centre
Refs: 5994

**Leucomeris decora**
Compositae
DD
China (Yunnan), Myanmar, Thailand, Viet Nam
A small composite tree scattered in hot dry valleys. The populations in China are confined to south and west Yunnan and are steadily being reduced by local exploitation of the wood for fuel and the bark for medicine. The distribution in Viet Nam is not known.
Assessor: World Conservation Monitoring Centre
Refs: 11847, 19055, 19061

**Leucostegane latistipulata**
Leguminosae
VU B1+2c
Malaysia (Peninsular Malaysia)
Confined to the lowlands of Perak, this small understory species is principally threatened by increasing settlement.
Assessor: Chua, L.S.I.
Refs: 8464, 19073

**Libocedrus austro-caledonica**
Cupressaceae
LR/cd
New Caledonia
Usually a shrub, the species occurs in small populations in cloud forest on a few of the higher mountains in the south and on Mont Paoua in the north. Regeneration is evident in places but not on Mont Paoua where mining and fires threaten the population. There are effectively protected populations in Rivière Bleue Provincial Park and Montagne des Sources Nature Reserve.
Assessor: SSC Conifer Specialist Group
Refs: 9631, 12630, 14508

**Libocedrus chevalieri**
Cupressaceae
EN B1+2de
New Caledonia
Known only from the summits of Mont Humboldt and Mont Kouakoué, the species grows in high-altitude maquis shrubland, where there is a high fire risk. Rates of growth and regeneration are slow. Both sites are within botanical reserves.
Assessor: SSC Conifer Specialist Group
Refs: 10351, 12630, 14508

**Libocedrus plumosa**
Cupressaceae
LR/nt
New Zealand (North Is., South Is.)
A lowland forest species with a wide but local distribution, occurring from the North Cape to East Cape in the North Island and in north-west Nelson in the South Island. Regeneration occurs in disturbed sites. Many populations are found in protected areas. Others are exposed to forestry, agriculture and mining activities.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041, 13930, 19126

**Libocedrus yateensis**
Cupressaceae
VU B1+3d, C2a
New Caledonia
The species is sparsely distributed in small areas of lowland woodland or scrub, often on rocky slopes. Populations are restricted to two river valleys in the southern ultramafic massifs and a single location in Roche Ouaième. The populations in Rivière Bleue Provincial Park are well protected, although situated closely to the tourist facilities. Fire is a hazard throughout its range.
Assessor: SSC Conifer Specialist Group
Refs: 9631, 12630, 14508

**Licania caldasiana**
Chrysobalanaceae
EX
Colombia
Assessor: Calderon, E.
Refs: 5970, 7501, 7980, 19069

**Licania chiriquiensis**
Chrysobalanaceae
CR C2a
Panama
Only three collections of this cloud forest species exist: one from Cerro Colorado and two from Cerro Jefe. Mining for copper and gold threatens the population in Cerro Colorado. Cerro Jefe is contained within Chagres National Park.
Assessor: Mitré, M.
Refs: 7501, 7980, 16772

**Licania conferruminata**
Chrysobalanaceae
VU B1+2c
Brazil (Rondônia)
A newly described forest species, known only from Rondônia in Brazil.
Assessor: World Conservation Monitoring Centre
Refs: 13176

**Licania fasciculata**
Chrysobalanaceae
EN A1ac
Panama
A species of lowland semi-evergreen rainforest, which occurs in two neighbouring areas. One, in Santa Rita, Colón, has experienced an influx of people in recent years, which has resulted in almost loss of the forest. The other, in Kunayala Indigenous Reserve, consists of a very small population. There is a considerable area of relatively unexplored forest and other populations possibly exist.
Assessor: Mitré, M.
Refs: 7980, 15037, 16772
**Licania intrapetiolaris var. brevis**
Chrysobalanaceae
Peru
This variety is known only from lowland Amazon rainforest in the department of Loreto.
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Licania morii**
Chrysobalanaceae  
DD  
Panama
The species has been collected only once, in 1975, although a second collection found almost 90km away was once thought to be the same species. The type locality has not been revisited and it is not known whether the species still exists. If it does, it should be considered to be seriously threatened.  
Assessor: Mitré, M.  
Refs: 7501, 7980, 15037, 16772

**Licaria salicifolia**
Chrysobalanaceae  
EN B1+2c  
Colombia
An endemic to Antioquia.  
Assessor: Calderon, E.  
Refs: 5970, 7501, 7980, 19069

**Licania vasquezii**
Chrysobalanaceae  
VU D2  
Peru
Known only from the type collection, the species occurs in swamp forest in the department of Loreto.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Licaria cubensis**
Lauraceae  
VU D2  
Cuba
A small, aromatic tree occurring in montane rainforests. This rare species is confined to the Sierra Maestra range.  
Assessor: Areces-Mallea, A.E.  
Refs: 19149

**Licaria velutina**
Lauraceae  
VU A1c  
Mexico (Chiapas, Oaxaca, Tabasco, Veracruz)
A large tree of high precipitation rainforest, occurring in the areas of Uxpanapa-Chimalapa and Los Tuxtlas.  
Assessor: World Conservation Monitoring Centre  
Refs: 5993, 15719

**Ligustrum microcarpum**
Oleaceae  
EN B1+2a  
Taiwan
This species is confined to coniferous scrub at elevations above 2400m in the central mountain range. Populations are fragmented and suffering from poor regeneration.  
Assessor: Pan, F.J.  
Refs: 3295, 19050

**Ligustrum pricei**
Oleaceae  
DD  
Taiwan
Assessor: Pan, F.J.  
Refs: 3295, 19050

**Lipodia breviantha**
Melastomataceae  
VU B1+2b  
Tanzania
A tree of moist evergreen forest endemic to a narrow altitudinal range in the East Usambara Mountains.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

**Lippia salicifolia**
Verbenaceae  
VU C2b  
Ecuador (Galápagos)
Endemic to the island of Floreana, the species was reported to occur in some abundance in the first half of the century. Large numbers of trees were felled for constructing houses during a period of settlement of the island and the total population is now estimated to include 2600 adult trees, most of which are located on...
the Cerro de Pampa Bola. Regeneration is reasonable but there is a potential threat of colonization by Lantana camara and Psidium guajava.

Assessor: Mauchamp, A. et al.
Refs: 9651, 14556, 18411, 19155, 19204

Liquidambar orientalis var. integriloba
Hamamelidaceae
VU A1cd
Turkey
The Liquidambar forests have been reduced from 63 km² to 13.5 km² since 1945. Much of the land has been converted for agriculture. Trees are cut for firewood and the resin is collected for the production of fixative in the perfume industry. The species is now the target of a special conservation programme. There is some uncertainty in the taxonomy.
Assessor: World Conservation Monitoring Centre
Refs: 3489, 4863

Liquidambar orientalis var. orientalis
Hamamelidaceae
VU A1cd
Greece (East Aegean Is), Turkey
In Turkey the Liquidambar forests have been reduced from 63 km² to 13.5 km² since 1945. Much of the land has been converted for agriculture. Trees are cut for firewood and the resin is collected for the production of fixative in the perfume industry. The species is now the target of a special conservation programme.
Assessor: Güner, A.
Refs: 1890, 3489, 19165

Liriodendron chinense
Magnoliaceae
LR/nt
China (Anhui, Fujian, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Yunnan, Zhejiang), Viet Nam. The species is widely scattered in montane evergreen broadleafed forest in the Yangtze River valley and further south to northern Viet Nam. Poor regeneration, extensive logging and clearing of the habitat have affected populations throughout the range. It is a relict species from a once widespread and species-rich genus.
Assessor: Ban, N.T.
Refs: 846, 1818, 9274, 11530, 11847, 19060

Litchi chinensis var. euspontanea
Sapindaceae
VU B1+2c
China (Guangdong, Guangdong - Hainan). A canopy tree of middle elevation rainforest known from several localities in the south-west of Hainan Island, and also from a single locality in Xuzhou County, Guangdong. It is found below 800 m in a habitat which has experienced severe declines in extent over much of the range's area.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Lithocarpus burkillii
Fagaceae
VU D2
Malaysia (Peninsular Malaysia)
This tree is known from only one collection in the hill forest of Fraser's Hill, Pahang, where it is reported as being common.
Assessor: Chua, L.S.L.
Refs: 19073

Lithocarpus crassimervius
Fagaceae
EN B1+2c
Indonesia (Java)
Occurring only in areas of primary forest in west and central regions, both the species and the habitat are uncommon. The pressures on remaining forest patches are very high, especially at elevations below 1400 m, where the forest is almost completely cleared.
Assessor: World Conservation Monitoring Centre

Lithocarpus curtisii
Fagaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
Populations are known from areas of lowland rainforest in Penang, Kelantan, Pahang, Terengganu, Perak and Selangor. The species is also protected in Taman Negara National Park.
Assessor: Chua, L.S.L.
Refs: 19073

Lithocarpus erythrocarpus
Fagaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
A rainforest species, occurring up to an altitude of 900 m in Terengganu, Pahang, Selangor, Negeri Sembilan. Much of the lowland forest has been converted for non-forest land use.
Assessor: Chua, L.S.L.
Refs: 19073

Lithocarpus hendersonianus
Fagaceae
VU A1c
Malaysia (Peninsular Malaysia)
A medium-sized tree inhabiting montane rainforest. Some localities are being cleared for agriculture despite being contained within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Lithocarpus indutus
Fagaceae
VU B1+2c
Indonesia (Java)
A relatively common species where it occurs in patches of remaining submontane forest up to 1800 m on Mount Slamet and further west. This habitat has been almost completely cleared below 1400 m and at higher elevations it is under severe pressure from the activities of surrounding human populations.
Assessor: World Conservation Monitoring Centre

Lithocarpus kingianus
Fagaceae
LR/cd
Malaysia (Peninsular Malaysia)
A tree of submontane and montane rainforest, found in the states of Pahang, Terengganu and Selangor. The species is protected in Taman Negara National Park and in protective forest within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Lithocarpus kingii
Fagaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
A tree of moist forest up to an altitude of 1200 m, in the states of Perak, Terengganu, and Johore.
Assessor: Chua, L.S.L.
Refs: 8464, 17140, 19073

Lithocarpus kostermansi
Fagaceae
EN A1c, B1+2c
Indonesia (Java)
A species confined to the west, where it occurs in scattered remnants of hill forest up to 1000 m. This

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habitat has been almost completely cleared and remaining patches are under extremely severe pressure from the activities of local populations.

Assessor: World Conservation Monitoring Centre

*Lithocarpus kunstleri*
Fagaceae                  LR/cd
Malaysia (Peninsular Malaysia)
A tree of primary and secondary forest, and also swamps, up to an altitude of 300m. This species is recorded in Kedah, Kelantan, Perak, Selangor, Negeri Sembilan and Johore. Some localities are protected within Taman Negara National Park.

Assessor: Chua, L.S.L.
Refs: 8464, 17140, 19073

*Lithocarpus mainyagi*
Fagaceae                  VU B1+2c
Malaysia (Peninsular Malaysia)
A hill forest tree species from Kedah, Selangor, Negeri Sembilan, Malacca and Johore.

Assessor: Chua, L.S.L.
Refs: 8464, 19073

*Lithocarpus neorobinsonii*
Fagaceae                  LR/nt
Malaysia (Peninsular Malaysia)
A tree of moist submontane and hill forest. Most localities are in protected forests within the permanent forest estate.

Assessor: Chua, L.S.L.
Refs: 19073

*Lithocarpus ovialis*
Fagaceae                  VU A1cd
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919

*Lithocarpus platycarpos*
Fagaceae                  EN A1c, B1+2c
Indonesia (Java)
Populations are confined to remnants of lowland forest in the south-west corner of Java and to Nusa Kambangan. The population on the Kambangan is relatively well protected by the presence of three high-security prisons. A reserve of 20km² is also patrolled by armed guards. However, illegal logging continues. On the mainland the habitat is also under extreme pressure from local activities.

Assessor: World Conservation Monitoring Centre

*Litosanthes capitatus*
Rubiaceae                 VU B1+2c
India (Karnataka, Kerala, Tamil Nadu)
A small tree, poorly collected but recorded from a few scattered localities of submontane forest from the Pushpagiri Hills to the Nilgiris and Anaimalai range.

Assessor: World Conservation Monitoring Centre
Refs: 19144

*Litsea auriculata*
Lauraceae                 LR/nt
China (Anhui, Jiangxi, Zhejiang)
A species with a scattered distribution in a few mountain locations. It occurs in deciduous or mixed forest in mountain valleys between 800 and 1100m. There have been reports of population declines caused by large-scale logging and habitat degradation.

Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

*Litsea beddomei*
Lauraceae                 EN B1+2c
India (Kerala, Tamil Nadu)
The species has been collected twice from forest between 1200 and 1350m, only in the Agasthyamalai Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.

Assessor: World Conservation Monitoring Centre
Refs: 19144

*Litsea claviflora*
Lauraceae                 VU D2
Malaysia (Peninsular Malaysia)
Known only by a single collection from Perak, the species was found in lowland forest in Taiping, Perak.

Assessor: Kochummen, K.M.
Refs: 8464, 19073

*Litsea dillenifolia*
Lauraceae                 EN B1+2ce
China (Yunnan)
Endemic to south and south-west Yunnan, the species occurs in dense monsoon forest in mountain valleys below 800m. It is relatively uncommon and large trees have been cut for their valuable timber. The most substantial remaining populations are confined to nature reserves.

Assessor: Sun, W.
Refs: 1818, 11847, 19050, 19055

*Litsea foxiana*
Lauraceae                 LR/cd
Malaysia (Peninsular Malaysia)
Known only from Penang Hill, a conservation area, this tree occurs in lowland forest.

Assessor: Kochummen, K.M.
Refs: 8464, 19073

*Litsea gardneri*
Lauraceae                 VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.

Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195

*Litsea glaberrima*
Lauraceae                 EN B1+2c
Sri Lanka
The comprehensive forest surveys conducted for the National Conservation Review located this wet-zone species in four forest localities in Ratnapura and in a population consisting of five individuals in Rammalakanda Biosphere Reserve.

Assessor: World Conservation Monitoring Centre
Refs: 19112

*Litsea gracilis*
Lauraceae                 VU D2
Malaysia (Peninsular Malaysia)
A single collection of this species has been made in
lowland forest in Temengor, Perak. There has been much forest conversion for agriculture and it is uncertain whether the species still exists. However, some forest remains around Temengor, in which the species may survive.

Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Litsea hirsutissima**
Lauraceae
LR/cd
Malaysia (Peninsular Malaysia)
Confined to the states of Perak and Kelantan, this hill forest species has been collected only a few times. It does, however, occur in Taiping near Maxwell’s Hills, which is a conservation area. Agriculture is a threat.

Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Litsea imbricata**
Lauraceae
EN B1+2c
New Caledonia
A species occurring in two upland locations, one on Mont Humboldt and the other near Ngoye. Mont Humboldt is a well-visited and trapped botanical reserve.

Assessor: Jaffré, T. et al.
Refs: 10351, 12630

**Litsea iteodaphne**
Lauraceae
VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka. This species was found in 25 localities during the forest surveys conducted for the National Conservation Review.

Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195, 19112

**Litsea leiantha**
Lauraceae
EN B1+2c
India (Andaman and Nicobar Is. - Andaman ls.)
Endemic to South Andaman Island, the species occurs in scattered small populations in remnant patches of evergreen forest. Large-scale logging has caused significant population declines.

Assessor: World Conservation Monitoring Centre
Refs: 4799, 7147

**Litsea leyensis**
Lauraceae
VU A1d
Philippines
An important source of medang timber, this forest species has become rare.

Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919

**Litsea ligustrina**
Lauraceae
EN B1+2c
India (Kerala, Tamil Nadu)
Occurring in submontane forest, the species is known from only a few collections from scattered localities in Wayanad and the Nilgiris, the Palni Hills and Elamalai range.

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Litsea longifolia**
Lauraceae
VU A1c
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.

Assessor: World Conservation Monitoring Centre
Refs: 17195

**Litsea nemoralis**
Lauraceae
EN B1+2c
Sri Lanka
This uncommon tree is confined to the lowland wet evergreen forests of south-west Sri Lanka. The species was found in three of the sites surveyed by the National Conservation Review, none of which is protected.

Assessor: World Conservation Monitoring Centre
Refs: 8203, 17195, 19112

**Litsea nigrescens**
Lauraceae
EN B1+2c
India (Tamil Nadu)
A medium-sized tree, known only from the type collection taken from submontane forest near Shencottah.

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Litsea pierrei var. szemosi**
Lauraceae
EN B1+2ce
China (Yunnan)
A variety restricted to areas of monsoon forest between 800 and 1500m in the counties of Menghai, Junghong and Mengla. The timber and oil, which goes to make perfume, are commercially valuable but population numbers are very low for large-scale exploitation. The loss and degradation of the habitat now appear to be the more serious threat.

Assessor: Sun, W.
Refs: 1818, 11847, 19055

**Litsea scortechinii**
Lauraceae
CR B1+2c
Malaysia (Peninsular Malaysia)
A lowland forest tree collected only once in Perak. The locality is no longer forested but there is a possibility that populations have survived in surrounding areas.

Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Litsea travancorica**
Lauraceae
EN B1+2c
India (Kerala)
A medium-sized tree known only from three collections taken from lowland forest at the base of the Western Ghats in Travancore.

Assessor: World Conservation Monitoring Centre
Refs: 19144

**Livistona alfredii**
Palmae
LR/cd
Australia (Western Australia)
Endemic to Western Australia, this palm tree is scattered in dry open forest between 100 and 150m. Potential threats include fires, natural disasters and tourism. The population is conserved within Millstream National Park.

Assessor: Dowl, J.L.
Refs: 19118
Livistona carinensis
Palmae
VU B1+2c
Djibouti, Somalia, Yemen (Former South Yemen)
A palm tree occurring in lowland deserts. In Somalia, only 38 trees in two localities are known and there are no signs of regeneration. There are approximately 2000 trees in three villages in Wadi Hadjen in the Jol, South Yemen, where regeneration is apparent but limited by an excessive number of goats. The South Yemen populations are additionally threatened by local overexploitation of the wood because of timber shortages. There is no information regarding the population status in Djibouti.
Assessor: Johnson, D.
Refs: 3768, 16980, 18665, 19118

Livistona drudei
Palmae
EN A1c
Australia (Queensland)
A palm tree of moist open forest up to an altitude of 150m, confined to an area extending from Kurramine Beach and Hinchin Island southward to Conway Beach. The main cause of population declines is land clearance. The species is mainly found on privately owned land. It is listed in the Nature Conservation Act (Queensland) 1994.
Assessor: Dow, J.L.
Refs: 19118

Livistona endauensis
Palmae
LR/nt
Malaysia (Peninsular Malaysia)
A lowland palm tree of open and closed forest, existing in two disjunct populations. One population is in Endau Rompin State Park and the other is found in the coastal hills of south Terengganu.
Assessor: Saw, L.G.
Refs: 19118

Livistona mariae
Palmae
LR/cd
Australia (Northern Territory)
The entire range of this palm tree falls within Finke Gorge National Park, where it occurs in dry sparsely vegetated habitats along creeks and watercourses.
Assessor: Johnson, D.
Refs: 19118

Livistona robinsoniana
Palmae
VU A1c, D2
Philippines
Endemic to the island of Palillo, the species has been little studied. Its lowland rainforest habitat is under pressure from logging and increasing agriculture and settlement.
Assessor: Madulu, D.
Refs: 19118

Livistona tahanensis
Palmae
LR/cd
Malaysia (Peninsular Malaysia)
A locally common palm tree of upper montane forest on peat soils between 1000 and 1200m, restricted to Gunung Tahan within the boundaries of Taman Negara National Park.
Assessor: Saw, L.G.
Refs: 19118

Livistona ionkinensis
Palmae
DD
Viet Nam
The description on which the species is based is insufficient.
Assessor: Johnson, D.
Refs: 19118

Livistona woodfordii
Palmae
VU D2
Solomon Islands (South Solomon)
A palm tree of lowland rainforest and swamp forest, restricted to Nggela Island.
Assessor: World Conservation Monitoring Centre
Refs: 19118

Llerasia assensis
Compositae
VU B1+2c
Ecuador
A species which is endemic to the High Andes of Ecuador.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Lodoicea maldivica
Palmae
VU A1cd
Seychelles
Famous for its distinctively large double nut, the coco-de-mer occurs naturally only on Praslin and Curieuse Islands and is now extinct on St Pierre, Chaque-Souris and Round Islands. Planted populations occur on Mahé and Silhouette Islands. The long-term overexploitation of the unusual nuts has virtually wiped out natural recruitment. Fire is another major threat to the species. An important population at Fond Ferdinand has been burnt repeatedly and the only significant adult population left is at Vallée de Mai. The species is now protected and the nut trade is legally controlled by the coco-de-mer Management Decree of 1995.
Assessor: Nature Protection Trust of Seychelles
Refs: 19025, 19118

Loesenera kalantha
Leguminosae
VU A1c
Côte d'Ivoire, Liberia
A lowland forest species, confined to remaining forested areas in Liberia and Côte d'Ivoire.
Assessor: World Conservation Monitoring Centre
Refs: 7550, 12590

Loesenera talbotii
Leguminosae
VU A1c, B1+2c
Cameroon, Nigeria
In Nigeria this rare forest tree is known only from the Oban Hills, where the population is protected within Cross River National Park. The population in Cameroon appears to be confined to Korup National Park. Areas outside protected areas have suffered serious habitat declines.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 5595, 19092

Lonchocharpus calcarius
Leguminosae
VU C1
Costa Rica, Panama
In Panama, this cloud forest species is just known from Valle de Antón in Coclé, where it appears to be very scarce and in some danger from industrial developments.
Lonchocarpus chiricanus
Leguminosae VU D2
Panama
Until recently the species was known only from the type specimen collected on a 1911 expedition to Chiriquí. Last year the species was identified on the Isla de Coiba in Coiba National Park, where it occurs commonly in rainforest along beaches and is protected.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Lonchocarpus guatemalaensis var. proteranthus
Leguminosae DD
Panama
Although, *L. guatemalaensis* extends from Mexico to Panama, *var. proteranthus* has been collected only once, from Cocle in Panama. There have been no reports of the taxon for almost 90 years and it is possible that it is now extinct.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Lonchocarpus kanurii
Leguminosae LR/nt
Kenya, Somalia
A species known from southern Somalia and adjacent parts of Kenya in Acacia–Commiphora bushland on sand. The habitat is frequently degraded because of overcutting and grazing.
Assessor: Thulin, M.
Refs: 6396, 8697, 18665

Lonchocarpus miniflorus
Leguminosae EN C2b
Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua
A relatively wide ranging tree of dry scrub on plains and hillsides, often in rocky areas.
Assessor: Nelson, C.
Refs: 8100, 13995

Lonchocarpus molinae
Leguminosae CR C2b
Honduras
A tree of low elevations, occurring in moist thickets along streams within areas of dry forest.
Assessor: Nelson, C.
Refs: 13995, 18427

Lonchocarpus phaseolifolius
Leguminosae CR C2b
Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua
A tree found in thicket on lowland plains, sometimes along rocky creeks or on hillsides.
Assessor: Nelson, C.
Refs: 13995

Lonchocarpus phleophyllus
Leguminosae EN C2a
Costa Rica, Guatemala, Honduras, Nicaragua
A tree of rocky dry hillsides in lowland regions.
Assessor: Nelson, C.
Refs: 4974, 13995

Lonchocarpus retiferus
Leguminosae EN C2a
Honduras, Nicaragua
This species occurs in humid areas or near streams in dry forest.
Assessor: Nelson, C.
Refs: 9076, 13995, 18427

Lonchocarpus sanctuarii
Leguminosae CR C2b
Honduras
Occurring in thicket and forest, often near streams, the species is reduced to remnant populations because of habitat loss.
Assessor: Nelson, C.
Refs: 13995, 18427

Lonchocarpus santarosanum
Leguminosae VU B1+2c
El Salvador, Guatemala
There is no recent information on the status of the populations in either El Salvador or Guatemala. The species occurs in montane forest where it is evidently very scarce and under some threat from logging, agriculture, fires and forest management activities.
Assessor: World Conservation Monitoring Centre
Refs: 4862, 4974, 19030

Lonchocarpus trifolius
Leguminosae CR C2b
Honduras
A seldom collected tree, found in pine–oak forest.
Assessor: Nelson, C.
Refs: 8805, 13995

Lonchocarpus yoroensis
Leguminosae CR C2b
Honduras, Mexico, Nicaragua
A rarely collected tree of dry forest.
Assessor: Nelson, C.
Refs: 13995

Laphira alata
Ochnaceae VU A1cd
Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Ghana, Liberia, Nigeria, Sierra Leone, Sudan, Uganda
Azobé is a pioneer species and occurs abundantly in wet evergreen forest, which continues to experience large-scale destruction. Slow growth rate, poor regeneration in less than optimum conditions and overexploitation as a timber species are contributing to the decline in population numbers through most of its range.
Assessor: African Regional Workshop
Refs: 2773, 6718, 9605, 12601, 17408, 19043

Lophopetalum sessilifolium
Celastraceae VU A1cd+2cd
Malaysia (Sarawak)
A small tree, endemic to Sarawak, found in lowland forest near rivers. It is locally frequent in west Baram.
All members of the genus are commercially valuable as perupok timber.

**Assessor: World Conservation Monitoring Centre**

**Ref: 14573, 18327, 19017**

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**Lovanua swynnertoni**

Meliaceae EN A1cd Democratic Republic of Congo, Kenya, Mozambique, Tanzania, Uganda, Zimbabwe

This timber species occurs sparsely in small patches of remaining wet evergreen forest in East and Southern Africa. Populations in Mozambique and Zimbabwe are confined to single localities: Garuso forest and Chirinda Forest Reserve, respectively. Habitat loss and excessive exploitation of the seed-producing individuals are resulting in population decline. Plantations have been unsuccessful because of infestation by Hypsipyla.

**Assessor: African Regional Workshop**

**Ref: 4506, 5117, 6396, 6725, 10961, 14667, 17335**

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**Lonoxoa trichiloides**

Meliaceae EN A1cd Angola, Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Liberia, Nigeria, Sierra Leone, Tanzania, Uganda

African walnut or dibetou occurs in evergreen and deciduous forest, generally in moist sites. Regeneration occurs only in canopy gaps. Germination success is somewhat limited by short-lived seeds which are heavily predated. Exploitation rates are high. It is one of the two principal timber species in Congo.

**Assessor: African Regional Workshop**

**Ref: 2362, 2773, 6128, 6718, 8369, 10961, 12061, 13250, 16021, 17408**

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**Loxococcus rupicola**

Palmae CR A1c Sri Lanka

A palm tree, occurring in moist closed forest between 300 and 742m. This monotypic genus is present within the national ornamental trade and the seeds are used locally as a betel nut substitute. It occurs within Sinharaja Biosphere Reserve.

**Assessor: Johnson, D.**

**Ref: 19118**

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**Loxopterygium grisebachii**

Anacardiaceae VU B1+2c Argentina, Bolivia

Endemic to the piedmont forest of north-west Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.

**Assessor: Prado, D.**

**Ref: 12837, 19122**

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**Ludwisia anastomosans**

Onagraceae VU B1+2c Brazil

Morphologically a very distinct species from a monotypic section of *Ludwisia*. It is rare and restricted to a few scattered individuals in black water streams of the ancient Planalto habitat of central Brazil, where it stands above associated tree species and bamboo canes.

**Assessor: World Conservation Monitoring Centre**

**Ref: 2744**

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**Lunaria cubensis**

Flacourtiaceae VU D2 Cuba

Populations of this tree are uncommon. The species is restricted to areas of montane semi-deciduous forest in the Sierra Maestra mountain range.

**Assessor: Areces-Mallea, A.E.**

**Ref: 7980, 19149**

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**Lunaria dodecandra**

Flacourtiaceae EN B1+2c Cuba

An endemic tree apparently restricted to the Baracoa area of Guantnamo Province. The species has not been collected recently.

**Assessor: Areces-Mallea, A.E.**

**Ref: 7980, 11403, 18485, 19149**

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**Lunaria elongata**

Flacourtiaceae EN B1+2c Cuba

This uncommon shrub or small tree is confined to montane forest in the Guamuhaya Massif, Sancti Spiritus Province. Cutting and logging are threats to the habitat of this species.

**Assessor: Areces-Mallea, A.E.**

**Ref: 11403, 18485, 19149**

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**Lunaria polydactyla**

Flacourtiaceae VU B1+2c Jamaica

An uncommon tree of hillside woodlands in Clarendon, Portland and St Thomas, occurring at altitudes of 480 to 900m. Logging and encroaching agriculture have caused extensive disturbance, causing almost complete loss or severe degradation of forest in St Thomas in particular.

**Assessor: World Conservation Monitoring Centre**

**Ref: 6057, 7980**

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**Lunaria racemosa**

Flacourtiaceae VU B1+2c Jamaica

An uncommon tree found in woodland at about 600m in St Ann, St Mary and St Thomas. Almost all forested areas at this altitude have been removed or severely degraded in the latter parish.

**Assessor: World Conservation Monitoring Centre**

**Ref: 6057, 7980, 19116**

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**Lupinus machribeanus**

Leguminosae VU D2 Peru

A small tree which is known only from the type collection along a riverside in shrubland above 3000m in the department of Huánuco.

**Assessor: World Conservation Monitoring Centre**

**Ref: 1984**

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**Lyonia elliptica**

Ericaceae EN B1+2c Cuba

Occurring only in rainforest on ferralitic soils near Monte Verde in the Nipe-Baracoa Massif, Guantánamo, this rare shrub or small tree is very localised. Its habitat is susceptible to cutting and logging.

**Assessor: Areces-Mallea, A.E.**

**Ref: 7980, 19149**
Species Summaries

**Lyonia jamaicensis**
Ericaceae  
Jamaica
Confined to the Blue Mountains, mostly in secondary montane forest at altitudes below 1650m, the species is relatively common in southern catchments at forest margins. It colonises exposed well-drained sites.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 7980, 12564

**Lyonia maestrensis**
Ericaceae  
Cuba
A rare shrub or small tree found in cloud forest on the highest peaks of the western Sierra Maestra mountain range, Santiago de Cuba Province.

*Assessor:* Areces-Mallea, A.E.
*Refs:* 19149

**Lyonia octandra**
Ericaceae  
Jamaica
Endemic to the Blue Mountains, the species is generally rare, although locally dominant in a few sites on ridge tops, especially on the Grand Ridge.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 7980, 12564, 19116

**Lyonia floribundus**
Rosaceae  
USA (California)
Restricted to the islands of Santa Cruz, Santa Rosa and San Clemente, the subspecies is limited in occurrence and threatened in parts of its range by damage caused by grazing animals. Feral herbivores have been removed from San Clemente and stump-sprouting has now been observed.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 19193

**Lyonia floribundus**
Rosaceae  
USA (California)
Endemic to Santa Catalina Island, this subspecies occurs in groves in moist humid areas of canyons and mountain sides, mainly on the Channel slopes. Increased control of feral pigs and deer has brought about improved regenerative capacity. Stump sprouting and seedlings have recently been observed. The introduced Acorn Woodpecker may also be causing damage by drilling into tree trunks. The species' range has shown historical declines, presumably as a consequence of climate changes.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 19193, 19194

**Maackia taiwanensis**
Leguminosae  
Taiwan
A relict species confined to a small area of broadleaved evergreen forest in the Yanshingshan area, northern Taiwan. The area is partially protected as a national park.

*Assessor:* Lu, S.Y. & F.J. Pan
*Refs:* 19050, 19051

**Macadamia neurophylla**
Proteaceae  
New Caledonia
A species found rarely and confined to the southern massifs of Grand Terre, where it occurs largely on the coast in various types of moderate to dry habitats. Observations of hyper accumulation of nickel and manganese have led to considerable scientific interest in the species.

*Assessor:* Jaffré, T. *et al.*
*Refs:* 10351, 12630

**Macaranga bellei**
Euphorbiaceae  
Côte d'Ivoire
A Côte d'Ivoire endemic confined to coastal forests. The species also occurs in Banco National Park, near Adidjan, but it could have been introduced there. There has been widespread degradation and loss of these forests.

*Assessor:* Assi, A.
*Refs:* 2773, 12822

**Macaranga bicolor**
Euphorbiaceae  
Philippines
An endemic species to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 2072, 4919

**Macaranga caudatifolia**
Euphorbiaceae  
Philippines
An endemic species to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 2072, 4919, 5651

**Macaranga cogostiflora**
Euphorbiaceae  
Philippines
An endemic to Palawan, surviving in old clearings. The main island is a biosphere reserve.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 4986, 5651

**Macaranga conglomerata**
Euphorbiaceae  
Kenya, Tanzania
A local offshoot of the *M. capensis-M. kilimandscharica* complex, this species is restricted to two montane forests. A small population is known from the Taita Hills and another is found in the West Usambara Mountains. It has been recorded as common in the past, but recent tree plots suggest it is rare. The explosive increase in the human population in the surrounding area has exerted a heavy demand for wood and land.

*Assessor:* Lovett, J. & G.P. Clarke
*Refs:* 3356, 6396, 9198, 12067

**Macaranga grandifolia**
Euphorbiaceae  
Philippines
An endemic species to the Philippines. Rates of habitat...
loss through logging and shifting cultivation have led to considerable population declines.

*Assessor: World Conservation Monitoring Centre
*Refs: 2072, 4919, 5651

**Macaranga huahineensis**
Euphorbiaceae
VU D2
French Polynesia (Society Is.)
A dioecious tree, restricted to the central crest of Huahine Nui, on Mount Mato Ereere and Turi. It is common or co-dominant in ridge forest between 390 and 669m. There are signs of a spreading invasion of *Merremia peliata*.
*Assessor: Florence, J.
*Refs: 19169

**Macaranga mauritiana**
Euphorbiaceae
EN A1ce
Mauritius
A pioneer species, which grows well in managed reserves where weeding is carried out. Regeneration is poor outside managed areas.
*Assessor: Strahm, W.
*Refs: 9120, 16426, 19208

**Macaranga paxii**
Euphorbiaceae
VU B1+2c
Cameroon, Nigeria
Extending from south-eastern Nigeria to Cameroon, the species is found sparsely distributed in patches of old secondary and disturbed forest. There is a population in the Oban Division of the Cross River National Park in Nigeria and in Cameroon the species is recorded in Ebome, Mantoum and Mount Cameroon. Unprotected forests have been heavily logged and cleared for agriculture.
*Assessor: Lovett, J. & G.P. Clarke
*Refs: 4977, 11504, 12597

**Macaranga quadricornis**
Euphorbiaceae
LR/cd
Malaysia (Peninsular Malaysia)
A species of lowland to submontane closed and open forest, with an interesting distribution. There are two main populations; one in mountain forest at Gunong Nuong in Selangor and the other in lowland seasonal swamp in south-east Johore. The Johore population is being deforested for the construction of resorts and it is doubtful that the species will survive there. The forest at Gunong Nuong is protected.
*Assessor: Kochummen, K.M.
*Refs: 8464, 19073

**Macaranga raivavaeensis**
Euphorbiaceae
CR B1+2c
French Polynesia (Tubuai Is.)
An endemic to Raivavae.
*Assessor: Florence, J.
*Refs: 14513

**Macaranga taitensis**
Euphorbiaceae
LR/nt
French Polynesia (Society Is.)
An endemic to Tahiti.
*Assessor: Florence, J.
*Refs: 14513

**Machaerium chambersii**
Leguminosae
VU D2
Panama
The species is known from a collection taken from the province of Panamá. No further records of the species have been made.
*Assessor: World Conservation Monitoring Centre
*Refs: 7272, 7980, 16772

**Machaerium cuzoense**
Leguminosae
VU D2
Peru
A species of semi-deciduous forest, known only from the type collection in the department of Cuzco.
*Assessor: World Conservation Monitoring Centre
*Refs: 1984

**Machaerium glabripes**
Leguminosae
VU D2
Panama
This species was described from a collection made in 1908. No reports of the species have been made since.
*Assessor: World Conservation Monitoring Centre
*Refs: 7272, 7980, 16772

**Machaerium nicaraguense**
Leguminosae
EN C2a
Honduras, Nicaragua
This tree occurs on rocky wooded river banks and open areas in pine-oak forest.
*Assessor: Nelson, C.
*Refs: 13995

**Machaerium villosum**
Leguminosae
VU A1cd
Brazil
Fairly widespread within Brazil from Minas Gerais to Paraná, this species is grows in highland dry forests. Deforestation in this region has been severe. This species is exploited for its timber which is used to make fine furniture and veneer.
*Assessor: World Conservation Monitoring Centre
*Refs: 4506

**Mackeea magnifica**
Palmae
VU B1+2c
New Caledonia
Restricted to north-east New Caledonia, the species occurs in wet montane forest or gallery forest on schistose rocks.
*Assessor: Jaffré, T. et al.
*Refs: 10351, 19118

**Macleania loeseneriana**
Ericaceae
VU B1+2c
Ecuador
An Ecuadorian endemic of montane and upper montane cloud forest in the High Andes, known from the provinces of Carchi, Imbabura, Pichincha and Cotopaxi.
*Assessor: World Conservation Monitoring Centre
*Refs: 19119, 19120

**Maclurodendron parviflorum**
Rutaceae
VU D2
Malaysia (Sarawak)
Endemic to the Kuching District, this small lowland tree is known from only four collections found in primary
*kerangas* forest and secondary forest.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19017

**Macrodendron pubescens**  
Rutaceae  
Malaysia (Sabah)  
Endemic to Sabah, this tree is found in primary forest on ridges and hillsides up to 140m. It is found in Sandakan, Keningau and Lamag Districts.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 10348, 19017

**Macrocarpaea hartii**  
 Gentianaceae  
Jamaica  
A species confined to moist montane and submontane forest, 1000 to 1400m, in St Andrew and Portland Parishes. Forest areas, in the former parish in particular, have been extensively destroyed or severely degraded.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980, 19116

**Macrocnemum cinchonoides**  
Rubiaceae  
Peru  
Known only from the type specimen, this forest species was collected from Puno.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Macrocnemum jamaicense**  
Rubiaceae  
Jamaica  
This species occurs in rocky rainforest and in pasture margins mostly in the north-central and eastern parishes. It is not common and habitat degradation has been severe in places.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Macrocnemum pilosinervium**  
Rubiaceae  
Peru  
This species is known only from the type collection which was taken from a site in the department of Amazonas. It possibly represents a variety of *M. roseum*.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Macrolobium amplexans**  
Leguminosae  
Suriname  
The species is known from the type locality on forested slopes in central Suriname and the Nassau Mountains.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19196

**Macrolobium pittieri**  
Leguminosae  
Colombia, Panama  
Originally known only from a few records, all from Kunayala Indigenous Reserve, in recent years the species has also been found in the Chocó, Valle del Cauca and Antioquia in Colombia. There is a possibility that there are populations in similar forest in Darién Province, Panama. Where it is known, the species is

uncommon and under some pressure of habitat loss, although the area remains relatively under developed.

**Assessor:** Mitré, M.  
**Refs:** 3969, 7272, 7980, 16772

**Macrolobium stenopetalum**  
Leguminosae  
Suriname  
This species is known only from the type locality at Tafelberg.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19196

**Macrolobium taylorii**  
Leguminosae  
Peru  
Known only from the type collection, the species is recorded from forest in the department of Huánuco.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Macropanax concinnus**  
Araliaceae  
Indonesia (Java)  
A widespread but uncommon species of damp montane forests above 400m. At lower elevation the species habitat has been almost completely cleared.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Macroslamanea macrocalyx**  
Leguminosae  
Brazil (Pará)  
A shrub or small tree, known only from Rio Xingu, near Altamira, growing on the margins of flooded forest.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Macroslamanea prancei**  
Leguminosae  
Brazil (Amazonas)  
Only known from sites along the Rio Aracá in north Amazonas, this shrubby tree is found growing on seasonally inundated white sand savanna and on sandy riverbanks.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5994

**Madhuca aristulata**  
Sapotaceae  
Malaysia (Peninsular Malaysia)  
A small tree of rainforest, known from two collections: one from Perak and the other from Kedah.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8464, 19073

**Madhuca betis**  
Sapotaceae  
Indonesia (Sulawesi), Philippines  
This primary lowland forest species is a source of bitis timber and also medicinal extracts. In the Philippines stands have been depleted by logging and shifting agriculture.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4919, 12937, 14573

**Madhuca boerlageana**  
Sapotaceae  
Indonesia (Irian Jaya, Moluccas), Papua New Guinea  
A tree of primary lowland forest in New Guinea and the
Moluccas. In Papua New Guinea, this species is extremely rare and known from a single sterile collection made from the Vanimo area, West Sepik Province. This part of Papua New Guinea is heavily logged and there is grave doubt as to its continuing existence in this country. The above threat category applies to the situation in Papua New Guinea only.

Assessor: Eddowes, P.J.

Refs: 19114

**Madhuca bourdilloni**

Sapotaceae  
India (Kerala)

The only collections of this large tree were made in lowland rainforest in Arikavanu and Shendurni Valley in Quillon District and from further north in the Trissur vicinity. It is not known to what extent the species has survived the continued exploitation of the habitat and of the trees for timber. Repeated searches have failed to find living specimens.

Assessor: World Conservation Monitoring Centre

Refs: 4799, 19144

**Madhuca calcicola**

Sapotaceae  
Malaysia (Peninsular Malaysia)

This rare tree is scattered in lowland limestone forests at Tasik Dayong Bunting in Langkawi, Kedah. The area is under intense pressure for development.

Assessor: Chua, L.S.L.

Refs: 19073

**Madhuca cuprea**

Sapotaceae  
Malaysia (Peninsular Malaysia)

The species is confined to rainforest in Perak.

Assessor: Chua, L.S.L.

Refs: 19073

**Madhuca diplostemon**

Sapotaceae  
India

The only record of the species comes from a imprecisely located collection in the Deccan Peninsula. Botanical explorations in the Eastern and Western Ghats have failed to find the species.

Assessor: CAMP Workshops on Medicinal Plants in India

Refs: 4799, 18325

**Madhuca fulva**

Sapotaceae  
Sri Lanka

A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.

Assessor: World Conservation Monitoring Centre

Refs: 9176, 17195

**Madhuca hainanensis**

Sapotaceae  
China (Guangdong - Hainan)

A canopy tree of rainforest on the upper part of mountain slopes usually above 600m on Hainan Island and in Quang Ninh Province in Viet Nam where it is found in forest below 1000 to 1200m. It provides a useful timber and overexploitation of both the tree and its habitat has caused considerable population declines.

Assessor: World Conservation Monitoring Centre

Refs: 1818, 11847

**Madhuca insignis**

Sapotaceae  
India (Karnataka)

The species is recorded from a single locality in Mangalore in South Kanara District, Karnataka. It has not been found this century despite thorough searches. Only fragments of the original forest now remain.

Assessor: World Conservation Monitoring Centre

Refs: 561, 4799

**Madhuca longistylo**

Sapotaceae  
Malaysia (Peninsular Malaysia)

A large tree inhabiting lowland rainforest and occasionally freshwater swamps. This species is confined to the state of Perak.

Assessor: Chua, L.S.L.

Refs: 17140, 19073

**Madhuca microphylla**

Sapotaceae  
Sri Lanka

A rare species which was found in only two wet zone forests during the extensive forest surveys conducted for the National Conservation Review.

Assessor: World Conservation Monitoring Centre

Refs: 19112

**Madhuca moonii**

Sapotaceae  
Sri Lanka

A rare tree restricted to the lowland wet evergreen forests of south-west Sri Lanka. During the recent National Conservation Review, this species was found in 14 forest localities.

Assessor: World Conservation Monitoring Centre

Refs: 8203, 17195, 19112

**Madhuca neriifolia**

Sapotaceae  
Sri Lanka

This rare species turned up in only four localities in Kalutara and Ratnapura during the comprehensive forest surveys conducted for the recent National Conservation Review.

Assessor: World Conservation Monitoring Centre

Refs: 19112

**Madhuca oblongifolia**

Sapotaceae  
Philippines

This species occurs in primary lowland forest on the island of Luzon. The wood is a source of bitis timber but has very limited availability.

Assessor: World Conservation Monitoring Centre

Refs: 14573

**Madhuca obovatfolia**

Sapotaceae  
Philippines

A species of primary lowland forest on Luzon. The timber is used as bitis but is very limited in supply.

Assessor: World Conservation Monitoring Centre

Refs: 12937, 14573
Madhuca obtusifolia
Sapotaceae
Malaysia (Peninsular Malaysia)
A very rare tree confined to the state of Perak.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Madhuca pasquieri
Sapotaceae
VU A1cd
China (Guangdong, Guangxi, Yunnan), Viet Nam
A large timber tree with a scattered distribution in lowland primary forest in south-west Guangdong, southern Guangxi, Malipo and Pingbian in Yunnan and northern provinces of Viet Nam. Few large trees remain. Populations have been heavily exploited throughout the range. The species' range coincides with protected areas in both countries.
Assessor: World Conservation Monitoring Centre
Refs: 848, 1818, 11530, 11847, 15357, 19055, 19061

Madhuca penangiana
Sapotaceae
LR/cd
Malaysia (Peninsular Malaysia)
A tree inhabiting rainforest between 150 and 1100m in Kedah, Penang and Perak. This species receives a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 14573, 19073

Madhuca penicillata
Sapotaceae
VU B1+2a
Malaysia (Peninsular Malaysia)
A large tree up to 33m tall, inhabiting lowland and hill forest in the states of Kelantan, Terengganu, Perak, Selangor and Negeri Sembilan.
Assessor: Chua, L.S.L.
Refs: 8464, 11647, 19073

Madhuca ridleyi
Sapotaceae
VU B1+2a
Malaysia (Peninsular Malaysia)
A tree inhabiting late secondary and primary forests on limestone areas at altitudes of 150 to 390m. This species, occasionally growing on seasonally swampy land, can be found in Perlis, Kedah, Upper Perak, Kelantan and Pahang.
Assessor: Chua, L.S.L.
Refs: 8464, 14573, 17140, 19073

Madhuca rufa
Sapotaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
This species is found in the lowland, primary forest of Perak. Populations are unprotected and threatened by increasing settlement and logging.
Assessor: Chua, L.S.L.
Refs: 19073

Madhuca selangorica
Sapotaceae
LR/cd
Malaysia (Peninsular Malaysia)
A tree of moist forest up to an altitude of 300m, occurring only in the state of Selangor.
Assessor: Chua, L.S.L.
Refs: 19073

Madhuca sessiliflora
Sapotaceae
VU B1+2c
Malaysia (Peninsular Malaysia)
This is an uncommon small tree confined to shady, low-lying, seasonally swampy forests in north-eastern Johore.
Assessor: Chua, L.S.L.
Refs: 17140, 19073

Madhuca tomentosa
Sapotaceae
LR/nt
Malaysia (Peninsular Malaysia)
Occurring in freshwater swamps and near streams in lowland and hill rainforest up to 480m, the species is recorded from Temerloh in Pahang and east Johore. The populations are protected within state parks and Taman Negara National Park.
Assessor: Chua, L.S.L.
Refs: 8464, 11647, 17140, 19073

Maerua acuminata
Capparaceae
DD
Mozambique, Tanzania
Assessor: Bandeira, S.
Refs: 5117, 5654, 18965

Maerua andradae
Capparaceae
DD
Mozambique
Assessor: Bandeira, S.
Refs: 5117, 18965

Maerua angolensis var. socotranum
Capparaceae
EN B1+2c
Yemen (Socotra)
An important timber tree with a scattered distribution, declining in some areas. Recent rapid development could result in a building boom which would put certain pressure on remaining populations.
Assessor: Miller, A.G.
Refs: 19083

Maerua brunnescens
Capparaceae
DD
Mozambique
It is likely that the species is confined to central Mozambique but more fieldwork, especially in northern regions, is required to consolidate the distribution and status of the species.
Assessor: Bandeira, S.
Refs: 5117, 18965

Maerua elegans
Capparaceae
VU D2
Democratic Republic of Congo
The only known locality of this forest species is in Upemba National Park, east of Lake Upemba. The density of the human population is low and the threats
from agricultural encroachment and logging are at a relatively low level. The crushed leaves are used to wash infants.

**Assessor:** Ndjele, M.B.

**Refs:** 17185, 17951

### **Magnolia calimaensis**

**Magnoliaceae**

Colombia

The accepted name for *Dugandiodendron calimaensis*. It is recorded only from Valle.

**Assessor:** Calderon, E.

**Refs:** 19069, 19138

### **Magnolia calophylla**

**Magnoliaceae**

Colombia

The accepted name for *Dugandiodendron calophyllum*. The species is recorded from Nariño.

**Assessor:** Calderon, E.

**Refs:** 19069, 19138

### **Magnolia cararensis**

**Magnoliaceae**

Colombia

The accepted name for *Dugandiodendron cararensis*. The species is recorded only from Norte de Santander.

**Assessor:** Calderon, E.

**Refs:** 19069, 19138

### **Magnolia caricisfragrans**

**Magnoliaceae**

Colombia

The accepted name for *Talauma caricisfragrans*. The species is recorded from localities in Boyaca, Cundinamarca and Norte de Santander.

**Assessor:** Calderon, E.

**Refs:** 19069, 19138

### **Magnolia cespedesii**

**Magnoliaceae**

Colombia

The accepted name for *Talauma cespedesii*. The species is recorded from Cundinamarca and from a less definite record in Boyaca.

**Assessor:** Calderon, E.

**Refs:** 19069, 19138

### **Magnolia colombiana**

**Magnoliaceae**

Colombia

The accepted name for *Dugandiodendron colombianum*. The species has been recorded only from Huila.

**Assessor:** Calderon, E.

**Refs:** 19069

### **Magnolia cubensis ssp. cacuminicola**

**Magnoliaceae**

Cuba

A rare tree of montane rainforest and cloud forest, restricted to Baracoa in eastern Cuba.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 9522, 19138, 19149

### **Magnolia cylindrica**

**Magnoliaceae**

Cuba

A tree known from a restricted area in the lower reaches of the Yangtze River, where it occurs in thickets and open forest up to 1700m. Collection of the flower buds for medicinal use and general forest clearance are believed to be having detrimental effects throughout the species range.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1818, 9274, 11847
**Magnolia dealbata**
Magnoliaceae  
EN B1+2c, C2b  
Mexico (Hidalgo, Oaxaca, Veracruz)  
About four or five relict populations exist in areas of cloud forest between 600 and 1600m. The largest consists of between 80 and 100 individuals in disturbed cloud forest at Ixhuacan de los Reyes, Veracruz. Numbers are very small in Oaxaca and Hidalgo. The reasons for declines have largely been habitat destruction, timber production and poor regeneration. Approximately 1000 saplings have been produced ex situ, some of which are being planted at Jardín Botánico Francisco Javier Clavijero.  
Assessor: Vovides, A.P.  
Refs: 81, 4301, 16907, 19206

**Magnolia delavayi**
Magnoliaceae  
EN B1+2c  
China (Sichuan, Yunnan)  
Assessor: Sun, W.  
Refs: 19138, 19174

**Magnolia espinallii**
Magnoliaceae  
CR B1+2c  
Colombia  
The accepted name for *Talauma espinallii*. The species is recorded only from Antioquia.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia georgii**
Magnoliaceae  
EN B1+2c  
Colombia  
The accepted name for *Talauma georgii*. The species has been recorded only from localities in Boyaca and Santander.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia gilbertoi**
Magnoliaceae  
EN B1+2c  
Colombia  
The accepted name for *Talauma gilbertoi*. The species is restricted to Risaralda and Valle.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia griffithii**
Magnoliaceae  
DD  
India (Assam), Myanmar  
Assessor: World Conservation Monitoring Centre  
Refs: 19138

**Magnolia guatapensis**
Magnoliaceae  
CR B1+2c  
Colombia  
The accepted name for *Dugandiodendron guatapense*. The species is recorded only from Antioquia.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia guatemalensis ssp. hondurensis**
Magnoliaceae  
EN C2a  
El Salvador, Honduras  
A species of medium- to high-altitude mixed forest.  
Assessor: Nelson, C.  
Refs: 13995, 15892

**Magnolia gustavi**
Magnoliaceae  
VU D2  
India (Assam)  
A large tree confined to Makum forest in Assam.  
Assessor: World Conservation Monitoring Centre  
Refs: 16640, 19138

**Magnolia henaoi**
Magnoliaceae  
EN B1+2c  
Colombia  
The accepted name for *Talauma henaoi*. The species is recorded only from Huila.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia henryi**
Magnoliaceae  
DD  
China (Yunnan), Laos, Myanmar, Thailand  
Ranging from south-east Yunnan to north-east Myanmar, Thailand and north Laos, the species is found in dry monsoon forest on limestone at low to medium elevations. The extensive clearing and destruction of the forest in China has resulted in populations there becoming scarce and threatened.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11847

**Magnolia hernandezii**
Magnoliaceae  
EN B1+2c  
Colombia  
The accepted name for *Talauma hernandezii*. The species is recorded from localities in Antioquia, Qiomdi'o, Risaralda and Valle.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia ilisiana**
Magnoliaceae  
VU B1+2c  
Mexico (Guerrero, Jalisco)  
A majestic tree which forms part of the mesophyllous montane forest in the Sierra de Manantlán and Cacoma in Jalisco. There is also a disjunct population in Guerrero.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 19068

**Magnolia kachirachirai**
Magnoliaceae  
EN A1d, C2a  
Taiwan  
A species at the most southerly limit of the family's range, in southern Taiwan from Taitung to the Hengchun Peninsula. Populations are healthy but fragmented, occurring in areas of lowland broadleaved forest. Kenting National Park covers part of the range, but elsewhere encroaching settlements are causing loss of habitat.  
Assessor: Lu, S.Y. & F.J. Pan  
Refs: 2428, 3295, 19050, 19051

**Magnolia katorium**
Magnoliaceae  
EN B1+2c  
Colombia  
The accepted name for *Talauma katorium*. The species is known only from Antioquia.  
Assessor: Calderon, E.  
Refs: 19069, 19138
**Magnolia lenticeellatum**
Magnoliaceae  
Colombia  
The accepted name for *Dugandiodendron lenticeellatum*. The species is recorded only from Antioquia.  
**Assessor:** Calderon, E.  
**Refs:** 19069, 19138

**Magnolia macrophylla ssp. ashei**

Magnoliaceae  
USA (Florida)  
Endemic to Florida, the species ranges from Leon and Wakulla Counties westward to Santa Rosa County along the southern half of the Florida Panhandle. A record in Texas appears to be a misidentification. Occurring in broadleaved or mixed forest on ravine slopes and bluffs, the species is sporadic and scarce in distribution. It doesn't respond well to disturbance and competition with more aggressive plants.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9254, 19138, 19163

**Magnolia mahechae**

Magnoliaceae  
Colombia  
The accepted name for *Dugandiodendron mahechae*. The species is recorded only from Valle.  
**Assessor:** Calderon, E.  
**Refs:** 19069, 19138

**Magnolia minor**

Magnoliaceae  
Cuba  
A scarce tree of lower montane rainforest, confined to the Sierra Maestra. The habitat has been disturbed by logging and overcutting.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 19138, 19149

**Magnolia narinensis**

Magnoliaceae  
Colombia  
The accepted name for *Talauwa narinensis*. The species is known only from Nariño.  
**Assessor:** Calderon, E.  
**Refs:** 19069, 19138

**Magnolia nitida var. lotungensis**

Magnoliaceae  
China (Fujian, Guangdong, Guangdong - Hainan, Guizhou, Hunan, Jiangxi, Zhejiang)  
Previously considered to belong to a separate genus *Parakmeria*, this variety is scattered over parts of central and southern China and Taiwan. It occurs in broadleaved evergreen forest below 1000m. The species is thought to be scarcer now because of the effects of logging and habitat degradation.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 9274, 11847

**Magnolia nitida var. nitida**

Magnoliaceae  
China (Guangxi, Guizhou, Xizang, Yunnan), Myanmar  
The taxon occurs in montane broadleaved evergreen forest between 1400 and 1500m on Damiao Mountain in northern Guangxi, Rongjiang in south-east Guizhou, various mountain localities in Yunnan extending into Tibet and Myanmar. It provides a useful timber and its exploitation as well as general habitat loss have caused considerable population declines. There is some concern that the androecioe nature of the flowering system may be contributing to poor regeneration.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 2428, 9274, 11847

**Magnolia officinalis**

Magnoliaceae  
China (Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Zhejiang)  
A very widespread tree endemic to China. It generally occurs in broadleaved deciduous forest up to 2000m but the rate of decline of forest and also the levels of bark-stripping of the tree have led to the species becoming rare outside cultivation. The species is frequently divided into subspecies but the differences between the two forms are not thought to be sufficient for taxonomic distinction.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 9274, 11847

**Magnolia omeiensis**

Magnoliaceae  
China (Guizhou, Sichuan)  
A species closely resembling *M. nitida var. nitida*, confined to Emei Mountain, where only male individuals have been found in an area of broadleaved evergreen forest between 1000 and 1200m. It is unknown whether further localities and female individuals exist. Logging appears to be continuing in the area and no special protection is yet in place to ensure that the population remains intact.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 2428, 9274, 11725

**Magnolia pacifica ssp. pacifica**

Magnoliaceae  
Mexico (Jalisco)  
A variety which appears to be known only from a few localities in ravines and gorges from Zapopan and San Cristóbal.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 19068

**Magnolia panamensis**

Magnoliaceae  
Panama  
Recently described, the species is presently known from forest between 2000 and 2600m on the Cordillera Central in Bocas del Toro and Chiriquí Provinces, right up to the border with Costa Rica. There is almost no doubt that the species continues into Costa Rica on the Cordillera de Talamanca, although it has yet to be collected here. There is a protected population in La Amistad National Park.  
**Assessor:** Mitbrü, M.  
**Refs:** 7980, 16772

**Magnolia phanerophlebia**

Magnoliaceae  
China (Yunnan)  
The species is endemic to Maguan in the south-east.  
**Assessor:** Sun, W.  
**Refs:** 19138, 19174
**Magnolia polyhypsopylla**

Magnoliaceae  
EN B1+2c  
Colombia  
The accepted name for *Talauma polyhypsophylla*. The species is recorded only from Antioquia.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia rostrata**

Magnoliaceae  
VU B1+2c  
China (Xizang, Yunnan), Myanmar  
A montane forest tree, occurring between 2100 and 3000m within a small area encompassing western Yunnan, Médog County in Tibet and north-east Myanmar. Overexploitation and detrimental harvesting of the bark are believed to have caused considerable population declines.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11847

**Magnolia samhuenis**

Magnoliaceae  
VU C2a  
Colombia, Panama  
Known under the genus *Talauma* in Panama, the species occurs in small sporadic populations, usually in inundated forest, in Darién National Park and slightly more frequently in the Serranía de Pirre, both in Panama. In Colombia, populations are recorded in Antioquia and more recently in Valle del Cauca. Outside protected areas the habitat has been extensively cleared for settlement and agriculture.  
Assessor: Mitré, M.  
Refs: 16772, 19138

**Magnolia santanderiana**

Magnoliaceae  
EN B1+2c  
Colombia  
The accepted name for *Talauma santanderiana*. The species is recorded only from Santander.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia sargentiana**

Magnoliaceae  
EN B1+2c  
China (Sichuan, Yunnan)  
Assessor: Sun, W.  
Refs: 9274, 19138, 19174

**Magnolia schiedea**

Magnoliaceae  
EN B1+2c  
Mexico (Guerrero, Hidalgo, Nayarit, Oaxaca, Querétaro, Sinaloa, Veracruz)  
Remaining stands show signs of disturbance or cutting. Regeneration is primarily vegetative, by resprouting from the roots and trunk bases. There appears to be low fertility.  
Assessor: Ramirez-Marcial, N. & M. González-Espinosa  
Refs: 81, 15892, 16907, 19171, 19203

**Magnolia sinensis**

Magnoliaceae  
VU B1+2c, D2  
China (Sichuan)  
A species known only in Tianquan, Lushan and Wenchuan Counties in Sichuan, occurring on the edges of forest and in scrub. The habitat has been cleared in places and the trees may be detrimentally affected by frequent bark-stripping. The bark contains a medicinal extract often used as a substitute for that of *M. officinalis*.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11847

**Magnolia sororum ssp. sororum**

Magnoliaceae  
VU A2c  
Panama  
This subspecies is recorded from Chiriquí and Cochlé Provinces, where it occurs in cloud forest between 1000 and 2600m. It is fairly common in Volcán Barú National Park and is expected to be found in other protected areas. The populations in Cochlé are facing significant increase in the human population, and in industrial and tourist activities. The other subspecies is endemic to Costa Rica.  
Assessor: Mitré, M.  
Refs: 7980, 16772

**Magnolia urraense**

Magnoliaceae  
VU B1+2c  
Colombia  
The accepted name for *Dugandiodendron urraense*. The species is recorded only from Antioquia.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia virilinensis**

Magnoliaceae  
VU B1+2c  
Colombia  
The accepted name for *Talauma virilinensis*. The species is recorded from localities in Boyaca and Santander.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia wilsonii**

Magnoliaceae  
EN B1+2c  
China (Guizhou, Sichuan, Yunnan)  
There are scattered populations within the range of western Sichuan, northern Yunnan and western Guizhou in montane forest and thicket between 2000 and 3300m. The forest has been extensively cleared and the bark of the tree is also exploited to a considerable degree. Although it contains the same medicinal extract as *M. officinalis*, it makes a relatively poor substitute.  
Assessor: Sun, W.  
Refs: 1818, 9274, 11847, 19174

**Magnolia wolfii**

Magnoliaceae  
CR B1+2c  
Colombia  
The accepted name for *Talauma wolfii*. The species is recorded only from Risaralda.  
Assessor: Calderon, E.  
Refs: 19069, 19138

**Magnolia yarumalense**

Magnoliaceae  
CR B1+2c  
Colombia  
The accepted name for *Dugandiodendron yarumalense*. The species is recorded only from Antioquia.  
Assessor: Calderon, E.  
Refs: 19069, 19138
Magnolia yoroconte
Magnoliaceae
Belize, Guatemala, Honduras, Mexico (Chiapas, Veracruz)
The species is mainly known from the critically endangered population in Honduras, occurring in medium to high elevation mixed forest. The distribution apparently extends to southern Mexico.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 13995, 19138

Magnolia zenii
Magnoliaceae
China (Jiangsu)
Apparently only a single population exists containing 18 individuals at the type locality on the north slopes of Baohua Mountain in mixed forest at an altitude of 220m. The area is a provincial reserve but no specific protection is given to these trees. No natural regeneration has been observed.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 9274, 11847

Mahonia oiwakensis
Berberidaceae
Taiwan
Endemic to the central mountain range on Taiwan, the species occurs in scattered populations in montane coniferous forest and woodland scrub. Regeneration is reported to be poor and no conservation or protection measures are in place.
**Assessor:** Pan, F.J.  
**Refs:** 3295, 6469, 19050

Maillardia pendula
Moraceae
Seychelles (Alldabra)
A small tree known from just a few individuals in Takamaka Grove on Grand Terre, in the Alldabas. It was once locally common but changes in the vegetation appear to have reduced the population significantly. The island is protected within a Strict Nature Reserve and is uninhabited.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19027

Malingaya malayana
Hamamelidaceae
Malaysia (Peninsular Malaysia)
An endemic species of Peninsular Malaysia, known only from Perak and Penang. This species inhabits primary rainforest up to 960m.
**Assessor:** Chua, L.S.L.  
**Refs:** 15251, 19073

Malania oleifera
Oleaceae
China (Guangxi, Yunnan)
An uncommon tree scattered in western Guangxi and eastern Yunnan on limestone mountains up to 1640m. Wild populations are much reduced as a result of continued logging and habitat clearance. A large population is under protection in Longzhou Nature Reserve. The genus is monotypic. It has long been cultivated as a source of oil for cooking and soap-making.
**Assessor:** Sun, W.  
**Refs:** 1818, 11847, 19055

Malleastrum leroyi
Meliaceae
Seychelles (Alldabra)
This shrub or small tree is found infrequently in mixed scrub on Polyonnie, the east of Picard and the east of Grand Terre. The islands are protected within a Strict Nature Reserve and only Picard has a population of staff from a research station.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19027

Mallotus atrovirens
Euphorbiaceae
India (Tamil Nadu)
A lowland forest species which has been collected rarely from scattered localities along the coast and base of the Western Ghats.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

Mallotus fuscescens
Euphorbiaceae
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9176, 17195

Mallotus odoratus
Euphorbiaceae
Philippines
An endemic species to the island of Camiguin. The present population status is not known and may be more seriously threatened.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4986

Mallotus oppositifolius var. lindicus
Euphorbiaceae
Mozambique, Tanzania
This variety occurs in south-east Tanzania and Mozambique within remaining areas of dry coastal forest.
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 1308, 3356, 8814

Mallotus smilaciformis
Euphorbiaceae
Malaysia (Peninsular Malaysia)
It is questionable whether the species still exists. It has been collected only once from primary areas of lowland evergreen rainforest in Perak.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8464, 19073

Malmea cuspidata
Annonaceae
Peru
This species is known only from the type collection, which was taken from the department of Loreto.
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

Malmea gaumeri
Annonaceae
Guatemala, Mexico (Chiapas)
A species with a restricted range, occurring in remaining
areas of lowland seasonal rainforest. The timber is of local use.
Assessor: Ramirez-Marcial, N. & M. Gonzalez-Espinosa
Refs: 13228, 19151, 19161

**Malmea leioaphylla**
Annonaceae
CR C2b
Honduras
This species is known from a single collection dating from 1890. It was discovered in Atlantic dry forest.
Assessor: Nelson, C.
Refs: 13995

**Malmea pachiteae**
Annonaceae
VU D2
Peru
Known only from the type collection, the species is found in lowland Amazon forest in the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Malouetia isthmica**
Apocynaceae
VU C1
Colombia, Panama
The species is distributed relatively widely in areas of lowland evergreen rainforest throughout the centre and east of Panama and is also reported from San José del Palmar in Colombia. Populations do not appear to be large and some areas are threatened by deforestation.
Assessor: Mitre, M.
Refs: 7980, 15037, 16772

**Malpigia cauliflora**
Malpighiaceae
EN B1+2c
Jamaica
Only three localities are known, containing small populations in St Catherine and St Thomas. Deforestation has almost removed all forest areas below 1400m in the latter parish.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980, 19116

**Malpigia harrisii**
Malpighiaceae
VU B1+2c
Jamaica
A slender shrub or tree, known only from populations in woodland on limestone in Clarendon and St Ann. Deforestation has almost removed all forest areas below 1400m in the latter parish.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Malpigia obtusifolia**
Malpighiaceae
VU B1+2c
Jamaica
A small tree or shrub from Clarendon, St James and Trelawny, where it occurs in woodland on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 6057, 7980

**Malpigia proctorii**
Malpighiaceae
CR B1+2c
Jamaica
The type locality of the species appears to have been cleared for charcoal production. It is not known whether the species occurs elsewhere or whether it is now extinct.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Malus hupehensis**
Rosaceae
DD
Japan, Taiwan
In Taiwan the species has been found in a very restricted area to the north of the island in the boundary area between Taipei and Ilan Counties. The population here consists of fewer than 50 individuals, in forest between 1700 and 1900m.
Assessor: World Conservation Monitoring Centre
Refs: 12135, 19053

**Malus komarovii**
Rosaceae
VU B1+2c
China (Jilin), North Korea
In China the species is confined to the Changbai Mountains, where it occurs infrequently in thicket between 1000 and 1300m. Clearing and altering of the habitat are believed to have affected regeneration and caused population declines. Observations of the species' resistance to cold has caused some interest in its potential as an apple cultivar.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

**Malus sieversii**
Rosaceae
VU B1+2c
China (Xinjiang), Former USSR
In China pure stands of the species occur in the Ili River Valley in the western part of the Tianshan Mountains and on hillsides in western Junggar between 1100 and 1600m.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

**Mammea grandifolia**
Guttiferae
VU D2
Papua New Guinea
This small tree, known only from the type collection, is found along Pinini Creek in the Gulf Province. The taxonomic limits of these species are unclear.
Assessor: Stevens, P.F.
Refs: 19031, 19113

**Mammea immansueta**
Guttiferae
EN A1ac
Panama
Almost all of the few existing collections of this species have come from an area of lowland rainforest along the highway running from Panamá Province to the Kunayala Indigenous Reserve. The species is relatively common where forest remains, but in the last 10 years an influx of campesinos into the area has resulted in extensive deforestation.
Assessor: Mitre, M.
Refs: 7980, 15037, 16772

**Mammea malayana**
Guttiferae
VU D2
Malaysia (Peninsular Malaysia)
This lowland forest tree is known only from two localities, one in north-east Pahang and the other in Perak. It is not certain that these localities are still forested, as the area is threatened by land conversion for agriculture.
Assessor: Kochummen, K.M.
Refs: 19073
**Mammea novoguineensis**
*Guttiferae*
Indonesia (Irian Jaya), Papua New Guinea
A tree that occurs in primary well-drained forest between 60 and 420m. It is known from a few scattered localities in an area that is poorly known.
*Assessor*: Stevens, P.F.
*Refs*: 19031, 19113

**Mammea papuana**
*Guttiferae*
Papua New Guinea
A rainforest tree known only from two collections from East Sepik. The taxonomic limits of this species are unclear.
*Assessor*: Stevens, P.F.
*Refs*: 19031, 19113

**Mammea papyracea**
*Guttiferae*
Papua New Guinea
A small tree, known only from the type collection, found in Buso, south of Lae in the Morobe District.
*Assessor*: Stevens, P.F.
*Refs*: 19031

**Mammea timorensis**
*Guttiferae*
Indonesia (Lesser Sunda Is.)
A species confined to the island of Komodo, a national park, and to West Timor.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 1011

**Mammea usambarensis**
*Guttiferae*
Tanzania
The distinctness of this species from the West African species, *M. africana*, is considered to be doubtful. Populations in Tanzania occur in moist montane forest in the West Usambara and South Pare Mountains.
*Assessor*: Lovett, J. & G.P. Clarke
*Refs*: 3356, 5204, 7089, 10961, 11631

**Mammea veimauriensis**
*Guttiferae*
Papua New Guinea
The description of this species is based on two herbarium specimens. This tree is found along the Veimauri River in lowland rainforest, where it is reported to be quite common.
*Assessor*: Stevens, P.F.
*Refs*: 19031

**Mangifera acutigemma**
*Anacardiaceae*
India (Sikkim)
The species is based on a sterile herbarium specimen collected from a mountain locality in Sikkim.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 11278

**Mangifera alissima**
*Anacardiaceae*
Indonesia (Irian Jaya, Lesser Sunda Is., Moluccas, Sulawesi), Malaysia (Sabah), Papua New Guinea (Bismarck Archipelago, Papua New Guinea), Philippines, Solomon Islands (South Solomon)
A timber species of lowland evergreen forest. It is nowhere abundant and the timber is available only in small quantities.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 2698, 4919, 9570

**Mangifera andamanica**
*Anacardiaceae*
India (Andaman and Nicobar Is. - Andaman Is.)
A tree endemic to Andaman and Nicobar Islands and restricted to wet evergreen forests. Many of the forests of the Andaman Islands have been affected in recent decades by overexploitation.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 4799, 9570

**Mangifera austro-indica**
*Anacardiaceae*
India (Tamil Nadu)
A small tree noted for its conspicuous mass of flowers. The species occurs commonly in remnants of *shola* forest in Salem and Coorg Districts.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 11278

**Mangifera austro-yunnanensis**
*Anacardiaceae*
China (Yunnan)
There is very little known about this species on the basis of a collection found in south-western Yunnan at 1500m. It is even doubtful that the specimen fits the limits of the genus.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 11278

**Mangifera blommesteinii**
*Anacardiaceae*
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A rare tree known from only three collections in Sabah, two from Sarawak, and single collections from Nunukan Island off east Kalimantan and Rotan Tunggal Forest Reserve in Peninsular Malaysia. It is usually found in wet evergreen forest. The species has been reported to be in immediate danger of extinction.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 4377, 8969, 16394

**Mangifera bullata**
*Anacardiaceae*
Indonesia (Sumatra), Malaysia? (Peninsular Malaysia?, Sabah?)
A tree known from two sterile herbarium collections from northern Sumatra and from dubious collections from Peninsular Malaysia and Sabah. It is reported to be fairly common in well-drained rainforest at 900m.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 11278

**Mangifera campnospermoides**
*Anacardiaceae*
Indonesia (Kalimantan)
A distinctive tree, which superficially looks like a *Campnosperma* species. It is known from only a single sterile specimen collected in well-drained wet evergreen forest in Purukacau near Kelaseh in south Kalimantan at 260m. The forest near Purukacau has been destroyed and the species may already be extinct.
*Assessor*: World Conservation Monitoring Centre
*Refs*: 11278
Species Summaries

Mangifera casturi
Anacardiaceae
Indonesia (Kalimantan)
Endemic to Kalimantan, mostly in the south, this tree produces delicious fruit but it is known only in cultivation.
Assessor: World Conservation Monitoring Centre
Refs: 4377, 16394

Mangifera collina
Anacardiaceae
Thailand
Restricted to Chiang Mai region in north Thailand, this uncommon tree is found in montane, wet evergreen and deciduous forests.
Assessor: World Conservation Monitoring Centre
Refs: 11278

Mangifera dewildei
Anacardiaceae
Indonesia (Sumatra)
Found in lowland rainforest, this massive tree is known only from the type locality in North Sumatra Leuser Nature Reserve at 400m.
Assessor: World Conservation Monitoring Centre
Refs: 11278

Mangifera dongnaiensis
Anacardiaceae
Viet Nam
A small tree, endemic to southern Viet Nam, restricted to the diminishing submontane wet evergreen forests.
Assessor: World Conservation Monitoring Centre
Refs: 9570

Mangifera flavia
Anacardiaceae
Cambodia, Viet Nam
A rare species of mid-elevation wet evergreen forest, dry deciduous forest and bamboo thicket, occurring in Thailand and southern Viet Nam. Only a single collection from 1918 is known from Cambodia.
Assessor: World Conservation Monitoring Centre
Refs: 9570

Mangifera hiemalis
Anacardiaceae
China (Guangxi)
This evergreen tree is so far only known from a region in south-west Guangxi Province.
Assessor: World Conservation Monitoring Centre
Refs: 9570

Mangifera indica
Anacardiaceae
India
The common mango has been cultivated for thousands of years and now has a pantropical distribution. Wild populations can be found in Assam, India and Myanmar, especially the Assam-Chittagong Hills. There is a protected population in the biosphere reserve on the Mysore Plateau, India. The timber is also traded as machang.
Assessor: World Conservation Monitoring Centre
Refs: 4919, 5550, 9570, 11479, 12937, 15431, 16121, 17759, 18327

Mangifera lalijowa
Anacardiaceae
Indonesia (Bali, Java, Sumatra?)
There is some question over the existence of this large forest tree in the wild. A population is known from an area between Semarang and Yogjakarta in central Java. There are also possible occurrences in Madura, Java, Bali and Sumatra and perhaps further afield. In Java encroaching agriculture and logging have almost completely eradicated lowland forest. This species is obviously highly valued for its fruit, which appears in large quantities in local markets.
Assessor: World Conservation Monitoring Centre
Refs: 9078, 11278

Mangifera macrocarpa
Anacardiaceae
Indonesia (Java, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah), Singapore, Thailand
A large tree, extremely scattered and localised within lowland wet evergreen rainforest. The species is rarely found in cultivation as it flowers and fruits infrequently and the fruit is rarely, if ever, eaten. It is possibly extinct in Java. The lowland rainforests of Peninsular Malaysia and Borneo are threatened by conversion to agriculture and forest degradation through logging.
Assessor: World Conservation Monitoring Centre
Refs: 7215, 9199, 9328, 9570, 11479

Mangifera minutifolia
Anacardiaceae
Viet Nam
So far this species is known only from the type specimen collected near Nhatrang, Annam.
Assessor: World Conservation Monitoring Centre
Refs: 9570

Mangifera monandra
Anacardiaceae
Philippines
A very scattered and uncommon tree found in wet evergreen lowland forest on the islands of Luzon, Samar, Leyte, Ticao and Quimaras. The fruit has little flesh and is eaten unripe. The timber is used for interior finish and making furniture.
Assessor: World Conservation Monitoring Centre
Refs: 9570

Mangifera nicobarica
Anacardiaceae
India (Andaman and Nicobar Is. - Nicobar Is.)
A scarce species which is known only from the type locality in lowland mixed dense rainforest on the island of Great Nicobar.
Assessor: World Conservation Monitoring Centre
Refs: 11278

Mangifera odorata
Anacardiaceae
Thailand?, Viet Nam?
This species has never been found in the wild and its origin remains a mystery. The fruit is popular and trees are commonly cultivated in eastern Asia in areas of high rainfall, especially where M. indica can't be grown.
Assessor: World Conservation Monitoring Centre
Refs: 4377, 5054, 5550, 9199, 9570, 11278, 12937

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Mangifera orophila
Anacardiaceae VU B1+2c
Malaysia (Peninsular Malaysia)
One of the only mango species and one of the few tropical fruit trees that can grow at high altitudes, up to 1700m. It grows in wet evergreen forest in mountainous areas. This unique species opens up the possibility of cultivating mangoes in more temperate regions.
Assessor: World Conservation Monitoring Centre
Refs: 4377

Mangifera pajang
Anacardiaceae VU A1c
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak), Singapore
Restricted to primary lowland dipterocarp forests in Borneo, this tree is rare within its natural habitat type. The only area where it is common is on the west coast plains of Sabah. It is found both wild and cultivated in Dayak gardens in the north-east and west of Kalimantan, but it is very rarely found in the south. It has not yet been cultivated widely outside its natural range, although, given the economic value and quality of the fruit, there is potential for more widespread cultivation in South East Asia. It may hybridise with M. foetida.
Assessor: World Conservation Monitoring Centre
Refs: 7215, 8969, 9199, 9570

Mangifera indica
Anacardiaceae EN A1c+2c
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore
A tree found in freshwater marshy areas and mangrove swamp in southern Peninsular Malaysia, Riau Islands, Bangka Islands, Jambi and Palembang, Sumatra. It is thought to be extinct in Singapore because of the destruction of mangrove areas for urban growth. Elsewhere it is suspected to be in real danger of extinction. An occurrence is recorded in Berbak Nature Reserve in Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 4377, 16394

Mangifera pedicellata
Anacardiaceae VU D2
Indonesia (Java)
This species is found on the Karimun Djawa Islands, north of Java. It is cultivated in south Sulawesi.
Assessor: World Conservation Monitoring Centre
Refs: 11278

Mangifera pentandra
Anacardiaceae VU A1c, B1+2c
Malaysia (Peninsular Malaysia, Sabah), Singapore, Thailand?
The natural distribution of this species is possibly confined to wet evergreen lowland forest in the north of Peninsular Malaysia. It was once a common village tree in Peninsular Malaysia and old orchards are found in Peninsular Thailand. It is suspected that the interest in the species is declining in favour of M. indica, although it is still useful in improving the genetic stock of the common mango.
Assessor: World Conservation Monitoring Centre
Refs: 8969, 9570, 11278, 11479

Mangifera persiciformis
Anacardiaceae DD
China (Yunnan)
A small tree found in the district of Funing in south-east Yunnan, south-west Guizhou and south Guangxi. It is frequently found or planted near villages.
Assessor: World Conservation Monitoring Centre
Refs: 11278

Mangifera rubrapetala
Anacardiaceae EW
Indonesia? (Sumatra?), Malaysia (Sabah, Sarawak)
Yet to be found in the wild, this species is cultivated widely in Sabah, Sarawak and also south Kalimantan and probably Sumatra. Its tasty fruit is similar to the common mango. It is adapted to wet lowland conditions and is best grown in areas without a pronounced dry season.
Assessor: World Conservation Monitoring Centre
Refs: 11278

Mangifera rufocostata
Anacardiaceae VU A1c
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah)
One of the tallest trees in the genus, reaching 53m in height, it is found scattered in lowland wet evergreen forest in Peninsular Malaysia, Sumatra and Borneo. The species produces a sour-tasting fruit after a long dry spell when other food is scarce.
Assessor: World Conservation Monitoring Centre
Refs: 4377, 8969, 11278

Mangifera simulis
Anacardiaceae VU A1c
Indonesia (Sumatra)
Restricted to south Kalimantan and Palembang in Sumatra, this rare tree is found in lowland rainforests. It was introduced to Java, where it is now cultivated. The specimen from Sumatra is slightly different.
Assessor: World Conservation Monitoring Centre
Refs: 15991

Mangifera sumbawaensis
Anacardiaceae VU D2
Indonesia (Lesser Sunda Is.)
Restricted to montane wet evergreen rainforest, this large tree is known only from the islands of Sumbawa and Flores. On the Lesser Sunda Islands, only small isolated patches of tropical rainforests remain and only an estimated total of 210km² of montane rainforest is left. The original forests have been degraded by human activity or converted for agriculture.
Assessor: World Conservation Monitoring Centre
Refs: 16394

Mangifera superba
Anacardiaceae EN A1c
Malaysia (Peninsular Malaysia)
So far this species is known only from the lowland wet evergreen forests in Peninsular Malaysia. It is one of the most threatened mango species. A large part of the habitat has been lost through clearance for agriculture, especially for large-scale cash crops.
Assessor: World Conservation Monitoring Centre
Refs: 9570, 11278, 19073
**Mangifera taipa**  
Anacardiaceae  
DD  
Indonesia? (Moluccas?)  
Very little is known about this species.  
Assessor: World Conservation Monitoring Centre  
Refs: 11278

**Mangifera transversalis**  
Anacardiaceae  
VU D2  
Indonesia (Moluccas)  
The species was originally described in 1755 as a remarkable species with fruit hanging transversely off the stalks. It is recorded as being endemic to Banda-Neira Island and introduced to Ambon Island. In 1993, this species was described by Kostermans based on a small cultivated tree, which is reputed to be common on Banda-Neira Island.  
Assessor: World Conservation Monitoring Centre  
Refs: 11278

**Mangifera zeylanica**  
Anacardiaceae  
VU A1c  
Sri Lanka  
This Sri Lankan endemic is very rare and scattered in both the wet and dry zones, in some places in designated reserves. The tree produces tasty fruits but is not yet in cultivation. It could potentially contribute to the improvement of mango varieties. The bark is also collected for its medicinal properties.  
Assessor: World Conservation Monitoring Centre  
Refs: 9570, 11278, 17195, 19110

**Manglietia aromatica**  
Magnoliaceae  
VU A1cd, B1+2cde  
China (Guangxi, Yunnan)  
Only a few scattered stands of this important timber tree remain. The species is found in montane forest on limestone hills between 800 and 1550m in a range stretching from south-east Yunnan to south-west Guangxi. Several populations are reported to have become extinct in both provinces, largely because of overexploitation of the timber.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11847

**Manglietia fordiana var. forestii**  
Magnoliaceae  
VU B1+2c  
China (Guangxi, Yunnan)  
Assessor: Sun, W.  
Refs: 19138, 19174

**Manglietia grandis**  
Magnoliaceae  
VU B1+2c  
China (Guangxi, Yunnan)  
Ranging from south-west Guangxi to south-east Yunnan, the species occurs in forested valleys on limestone mountains between 800 and 1500m. The habitat has been extensively cleared and degraded, and population declines have been reported as a result.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11847

**Manglietia megaphylla**  
Magnoliaceae  
VU B1+2cde  
China (Guangxi, Yunnan)  
The remaining populations are believed to be small. They are restricted to broadleaved evergreen forest between altitudes of 450 and 1500m on Mount Caoguo, where the species occurs with *M. sinica*, Mount Laojun in south-east Yunnan and in Jingxi and Napo Counties in Guangxi. The forests are unprotected and heavily exploited for firewood and timber. This species provides a construction timber given particular preference by local inhabitants.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11847

**Manglietia ovoidea**  
Magnoliaceae  
EN B1+2c  
China (Yunnan)  
Assessor: Sun, W.  
Refs: 19138, 19174

**Manglietia sinica**  
Magnoliaceae  
CR D1  
China (Yunnan)  
A species known from a single population, which consists of just seven mature individuals on forested slopes between 1300 and 1550m on Caoguo Mountain and Nanchang Mountain. No effective protective measures are in place and the area is open to cutting and clearance. Regeneration is non-existent. The species was previously known under the monospecific genus *Manglietiastrum*.  
Assessor: World Conservation Monitoring Centre  
Refs: 9274, 11847

**Manilkara bella**  
Sapotaceae  
EN B1+2c  
Brazil (Espírito Santo, Rio de Janeiro)  
A primary forest tree, restricted to an altitudinal range between 600 and 700m on the Brazilian Atlantic coast. It provides an excellent timber. Overexploitation of both the tree and the habitat as a whole has caused the species to become scarce.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 7980, 8816

**Manilkara bolivarenensis**  
Sapotaceae  
VU D2  
Venezuela  
The species was found some 30 years ago at the headwaters of Río Pacairao in the Gran Sabana in Bolivar, where it was confined to gallery forest at 1100m. It has apparently not been found since, but the area is protected within Canaima National Park.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980

**Manilkara cavalcantei**  
Sapotaceae  
VU B1+2c  
Brazil (Amazonas, Pará)  
Occurring in the non-flooded lowland forests of northern Brazil, this species is threatened primarily by logging activities. It is present in the Duke Forest Reserve near Manaus.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 7980, 8816

**Manilkara dardanoi**  
Sapotaceae  
EN B1+2c  
Brazil (Pernambuco)  
A small tree restricted to a small area of coastal forest and old secondary forest in Pernambuco. The habitat is threatened by felling and increasing settlement.  
Assessor: Pires O'Brien, J.  
Refs: 1983, 7980, 8816
**Manilkara decrescens**
Sapotaceae
EN B1+2c
Brazil (Bahia)
A treelet which has been collected only once in 1982 from the *restinga* on the roadside between Maruá and Campinhos.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Manilkara elata**
Sapotaceae
EN A1c, B1+2c
Brazil (Bahia, Espírito Santo)
The type collection originates from Bahia. The only other record was made in 1965, when the species was reported to be relatively abundant in Linhares in Espírito Santo. No recent collections in either location have since been made and the species is reported to have suffered population declines.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Manilkara excelsa**
Sapotaceae
VU B1+2c
Brazil (Amazonas, Mato Grosso, Pará)
A large tree confined to periodically flooded forest on the banks of the Tapajós River. It occurs within the boundaries of the Tapajós National Forest.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Manilkara excisa**
Sapotaceae
EN B1+2c
Jamaica
A Cockpit Country endemic, confined to areas of woodland on limestone hills in Trelawny and St James. It is a large tree, valuable for its timber.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Manilkara gonavensis**
Sapotaceae
CR B1+2c
Haiti
An imperfectly known species. The only information available comes from the type collection, which was taken from Gonâve Island in Haiti in the first part of the century.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Manilkara jaimiquissp. haitiensis**
Sapotaceae
VU B1+2c
Dominican Republic, Haiti, Puerto Rico?
A shrub or small tree of forest on rocky limestone hills up to 400m. Collections have been made from two sites in Haiti and two from the Dominican Republic. There are also unconfirmed reports of an occurrence in Puerto Rico. The timber is exploited locally but the destruction of the habitat is the main cause of concern.
Assessor: World Conservation Monitoring Centre
Refs: 8816

**Manilkara jaimiquissp. jaimiqui**
Sapotaceae
VU B1+2c
Cuba, Jamaica
The subspecies occurs in lowland semi-deciduous forest, which for the most part has been heavily degraded in

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Cuba. It is also native to Jamaica. Although it is a small tree, it has been overexploited for its valuable timber.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 8816, 19149

**Manilkara jaimiquiussp. wrightiana**
Sapotaceae
VU B1+2c
Cuba
This small tree is found in various sites throughout Cuba, both in coastal dry evergreen forests on limestone and in dry serpentine woodland. The habitat has suffered severe degradation in many places and continues to be threatened with cutting and burning.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 8816, 19149

**Manilkara kanosiensis**
Sapotaceae
EN A1cd+2cd, C2a
Indonesia (Moluccas), Papua New Guinea (Bismarck Archipelago, Papua New Guinea)
Relatively widespread but uncommon, this timber tree is scattered in primary lowland rainforest. It occurs mainly in areas where intense logging is being carried out, such as New Britain and New Ireland in the Bismarck Archipelago and the north-west of Papua New Guinea.
Assessor: Eddowes, P.J.
Refs: 19114

**Manilkara longifolia**
Sapotaceae
EN A1c, B1+2c
Brazil (Bahia, Espírito Santo)
A lowland rainforest species, recorded to be abundant in Espírito Santo in 1965. This area has been heavily cleared since and recent collections of the species have been rare.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Manilkara maxima**
Sapotaceae
VU B1+2c
Brazil (Bahia)
The species is confined to *restinga* vegetation.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Manilkara mayaensis**
Sapotaceae
EN B1+2c
Cuba
A shrub or small tree confined to the province of Oriente, where it occurs in montane serpentine shrublands, mainly along creeks, ravines and watercourses. Mining is a constant threat to its habitat.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 8816, 19149

**Manilkara multifida**
Sapotaceae
EN B1+2c
Brazil (Bahia)
The species has only been found once at Belmonte Experimental Station in 1970.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Manilkara nicholsonii**
Sapotaceae
EN B1+2bcde
South Africa (Eastern Cape, KwaZulu-Natal)
A Pondoland endemice confined to sandstone outcrops in southern KwaZulu-Natal around Port Edward and in the eastern Transkei in the Eastern Cape. It occurs as

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scattered single individuals on sandy soils among rocks on forest margins or streambanks. The few remaining patches of forest are under threat from cutting for firewood and timber, agricultural activities and coastal development. This species is used as firewood and for stick making. There are populations in two provincial nature reserves and a local authority reserve in KwaZulu-Natal, also in a game reserve and a few demarcated forest areas in the Transkei.

**Assessor:** Hilton-Taylor, C. *et al.*

**Refs:** 698, 19218

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**Manilkara paraensis**

**Sapotaceae**

**VU B1+2c**

**Puerto Rico**

A shrub or small tree of coastal woodlands on limestone only in Puerto Rico. A record of the species from St John in the US Virgin Islands requires confirmation.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

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**Manilkara pleeana**

**Sapotaceae**

**VU B1+2c**

**Puerto Rico**

A shrub or small tree of coastal woodlands on limestone only in Puerto Rico. A record of the species from St John in the US Virgin Islands requires confirmation.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

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**Manilkara pubicarpa**

**Sapotaceae**

**VU D2**

**Guyana**

A tall tree, known solely from the type collection, gathered 50 years ago from rainforest in the Kanuku Mountains.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

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**Manilkara rufula**

**Sapotaceae**

**LR/nt**

**Brazil** (Bahia, Ceará, Paraíba, Pernambuco, Piauí, Sergipe)

Populations of this submontane forest species are numerous. However, recent collections have suggested a decline in the numbers of individuals.

**Assessor:** Pires O'Brien, J.

**Refs:** 1983, 7980, 8816

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**Manilkara spectabilis**

**Sapotaceae**

**CR B1+2c**

**Costa Rica**

Recorded only from a single site, the species occurs in Atlantic coastal forest near Limón. The area was once covered with lowland rainforest but is now largely disturbed.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

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**Manilkara subsericea**

**Sapotaceae**

**LR/nd**

**Brazil** (Paraná, Rio de Janeiro, Santa Catarina, São Paulo)

The extent of occurrence of this species is relatively wide. It is found in both *restinga* vegetation and lowland rainforest, also in Ilha do Cardoso Forest Reserve in São Paulo.

**Assessor:** Pires O'Brien, J.

**Refs:** 1983, 7906, 7980, 8816

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**Manilkara valenzuelana**

**Sapotaceae**

**VU B1+2c**

Cuba, Dominican Republic, Haiti, Puerto Rico?

Populations of this shrub or tree are found in areas of coastal and subcoastal semi-deciduous forest in Pinar del Rio and Oriente in Cuba. Two localities are recorded in both Haiti and the Dominican Republic. There are also unconfirmed reports of occurrences in Puerto Rico. Declines in the habitat have been large-scale because of logging, charcoal production and increasing settlement.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 7980, 8816, 19149

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**Maniltoa schefferi var. peekeli**

**Leguminosae**

**VU A1cd+2cd, C2a**

**Papua New Guinea (Bismarck Archipelago, Papua New Guinea)**

Restricted to East Sepik Province, New Britain and New Ireland in the Bismarck Archipelago, this tree grows in lowland rainforest mainly in areas under siege from intensive logging activities. Its long-term survival is highly questionable.

**Assessor:** Eddowes, P.J.

**Refs:** 19114

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**Maniltoa vestita**

**Leguminosae**

**LR/nt**

**Fiji**

A forest tree of rocky slopes, occurring relatively infrequently on Viti Levu and Vanua Levu.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 18818

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**Mansonia altissima var. altissima**

**Sterculiaceae**

**EN A1cd**

**Benin, Cameroon, Congo, Côte d'Ivoire, Ghana, Nigeria**

A moderately exploited timber tree. It occurs particularly in disturbed areas or light gaps in lowland moist forest. Regeneration is good after disturbance.

**Assessor:** African Regional Workshop

**Refs:** 2773, 6718, 7111, 17408

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**Mappia racemosa**

**Icacinaceae**

**VU A1cd**

**Cuba, Dominican Republic, Guatemala, Haiti, Jamaica, Panama, Puerto Rico**

A relatively widespread tree of semi-deciduous forest. It has been overexploited for its valuable timber in the West Indies and is now reduced to very small populations on most islands: one tree on Jamaica, five trees on Puerto Rico. Logging and habitat destruction continue to pose a serious threat. More information is needed on the Central American populations.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 17124, 19149

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**Margaritaria anomala var. cheloniophorbe**

**Euphorbiaceae**

**VU D2**

**Seychelles (Aladabra)**

Occurring in inland scrub, this small tree or shrub is found on most of the Aladaban islands and also Menai and Astove. The fruits are eaten and the seeds dispersed by the blue pigeon. The Aladabars are protected within a Strict Nature Reserve. Areas of Cosmoledo and Astove...
have been cleared for the establishment of coconut and *Casuarina* plantations.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19027, 19062

**Marilia saramaccana**  
Guttiferae  
VU D2  
Suriname  
This species is endemic to an area around the upper Saramacca River.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19196

**Marilia speciformis**  
Guttiferae  
VU D2  
Peru  
Known only from the type collection, the species is recorded from lowland forest in the department of Amazonas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Marilorea sintenisii**  
Myrtaceae  
VU D2  
Puerto Rico  
An endemic to upper wet ridges in the Luquillo Mountains. More information may indicate a more serious threat category is appropriate.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3786, 7931, 7980, 17124, 17540

**Marojejya darianii**  
Palmae  
CR B1+2c, C2b  
Madagascar  
This solitary species is known only from a single site near Maroantsetra, in upland swamp in a valley bottom between 400m and 450m.  
**Assessor:** Dransfield, J. & H.J. Beentje  
**Refs:** 18986, 19118

**Marojejya insignis**  
Palmae  
VU C2a  
Madagascar  
An endemic palm of Madagascar, inhabiting rainforest on ridge tops or steep slopes. Despite its wide distribution, ranging from Marojejy to Andohahela, the size of individual populations is small. The total number of individuals is estimated at less than 2000. Harvesting of the palm heart continues.  
**Assessor:** Dransfield, J. & H.J. Beentje  
**Refs:** 18986, 19118

**Masoala kona**  
Palmae  
EN A1c  
Madagascar  
A newly described species, currently known only from the Ifanandiana area, where it inhabits rainforest on sandy/quartz soils between 450 and 550m. The forest and the populations in this small area are steadily disappearing because of shifting cultivation.  
**Assessor:** Dransfield, J. & H.J. Beentje  
**Refs:** 18986, 19118

**Masoala madagascariensis**  
Palmae  
VU A1c  
Madagascar  
This endemic palm is known only from Marojejy, Masoala and Mananara, inhabiting lowland rainforest on dry hillside or swampy valley bottoms, occasionally on ultramafic soils. The number of individuals in all known sites is low.  
**Assessor:** Dransfield, J. & H.J. Beentje  
**Refs:** 18986, 19118

**Mastixia glauca**  
Cornaceae  
VU D2  
Malaysia (Sarawak)  
Endemic to Sarawak, this species is known only from Mount Santubong in mixed dipterocarp forest at an elevation of 90m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18327, 19017

**Mastixia macrocarpa**  
Cornaceae  
VU A1c  
Malaysia (Sarawak), Philippines  
This tree is known only from Luzon in the Philippines and from Miri in Sarawak, where it grows in mixed dipterocarp forest at 75m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19017

**Mastixia macrophylla**  
Cornaceae  
VU A1c, B1+2c  
Sri Lanka  
During the recent National Conservation Review, this species was discovered in eight of the surveyed forest sites.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19112

**Mastixia nimali**  
Cornaceae  
VU A1c, B1+2c  
Sri Lanka  
A tree confined to the lowland rainforests of south-west Sri Lanka. This species was found in only 10 localities during the comprehensive forest surveys conducted for the recent National Conservation Review.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17195, 19112

**Mastixia tetandra**  
Cornaceae  
VU A1c  
Sri Lanka  
A tree occurring in the lowland rainforests of south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9176, 17195

**Mastixiodendron plectocarpum**  
Rubiaceae  
LR/nt  
Indonesia (Irian Jaya), Papua New Guinea  
Confined to south-west Papua New Guinea and south-east Irian Jaya, this large tree grows in lowland seasonal moist forest. This species occurs in a large forest logging concession area of Papua New Guinea which is subject to ongoing exploitation for log exports; continued exploitation will render it vulnerable.  
**Assessor:** Eddowes, P.J.  
**Refs:** 19114, 19147

**Mastixiodendron stoddardii**  
Rubiaceae  
VU A1c+d+2cd, B1+2abcde  
Papua New Guinea (Bismarck Archipelago, North Solomons), Solomon Islands (South Solomons)  
A large timber tree of primary lowland rainforest, restricted to New Britain in the Bismarck Archipelago and the Solomon Islands. New Britain is one of the most
intensively logged islands in the Bismarck Archipelago, thereby threatening this species with habitat destruction. The Solomon Islands population is also at risk from logging activities.

**Assessor:** Eddowes, P.J.
**Refs:** 19114

**Matisia exalata**
Bombacaceae
Panama
The species is restricted to areas of evergreen rainforest between 650 and 1000m in the Central Cordillera. Populations are reported to be healthy, although much of the area has been altered by cattle ranching and increasing urbanisation. There is a record from La Yeguada Forest Reserve, which lies just to the west of the principal population.

**Assessor:** Mitré, M.
**Refs:** 7980, 16772

**Matisia stenopetala**
Bombacaceae
Peru
Known only from the type collection, the species occurs in lowland Amazon forest in the department of Loreto.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Matudaea trinervia**
Hamamelidaceae
Mexico
**Assessor:** Ramirez-Marcial, N. & M. González-Espinosa
**Refs:** 12985

**Mauria killipii**
Anacardiaceae
Peru
The species has been recorded only from the type collection, which occurs above 1500m in the department of Junín.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Mauria trichothrys**
Anacardiaceae
Peru
Known only from the type collection, the species occurs in shrubland above 2500m in the department of Cajamarca.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Mauritia carana**
Palmae
Brazil (Amazonas), Colombia, Peru, Venezuela
Widespread but uncommon, this palm tree occurs in lowland forest on poorly drained white sand soils in the Amazon region.

**Assessor:** Henderson, A.
**Refs:** 19118

**Mayna pubescens**
Flacourtiaaceae
Colombia
A small tree or shrub, endemic to Colombia, recorded only in Cundinamarca.

**Assessor:** Calderon, E.
**Refs:** 7980, 19069

**Mayna suaveolens**
Flacourtiaaceae
Colombia
Endemic to Colombia, the species is recorded in Antioquia, Cundinamarca and Tolima.

**Assessor:** Calderon, E.
**Refs:** 7980, 19069

**Maytenus abbottii**
Celastraceae
South Africa (Eastern Cape, KwaZulu-Natal)
A Pondoland endemic found in remnant evergreen forest patches between Durban in KwaZulu-Natal and Port St John's in the Transkei, Eastern Cape. It occurs in isolated groups as an understory shrub or slender tree in coastal scarp forest, often on river banks. In two of the known localities, trees have been chopped down at an alarming rate for local use as firewood and timber and the habitat cleared for agriculture and settlement. A large subpopulation is protected in the Umtamvuna Nature Reserve and plants also occur in the Mkambati Game Reserve and a number of demarcated reserves in the Transkei. However, little protection is afforded to these forests in the Eastern Cape. The species was previously confused with *M. acuminata* and could be more widespread than is currently known.

**Assessor:** Hilton-Taylor, C. et al.
**Refs:** 689, 19218

**Maytenus addat**
Celastraceae
Ethiopia
A tree of Afromontane forest, especially along forest margins, and also secondary formations. It ranges throughout the highlands. In the north the expanding human population and agricultural activities have caused a decline in the extent of the forest and continue to put pressure on the remaining habitat. Where the forest is cleared the tree is often left standing because of its usefulness as a timber and firewood.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1330, 18523

**Maytenus arbutifolia var. sidamoensis**
Celastraceae
Ethiopia
A variety known only from Afromontane forest and forest margins in Sidamo and adjacent parts of Shewa. The type variety is not ecologically distinct and is widely spread from DR Congo and Tanzania to Saudi Arabia.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1330

**Maytenus canariensis**
Celastraceae
Spain (Canary Is.)
A shrub or small tree, locally common in scrub on steep cliffs and in rocky areas. Endemic to the Canary Islands, populations are found on all the main islands except for Lanzarote. The extent of its known occurrence appears to be expanding. The species is listed in government legislation of 1991.

**Assessor:** Bañares, A. et al.
**Refs:** 19022
**Maytenus clarendonensis**
Celastraceae  
Jamaica
Occurring in central parishes, the species has a local distribution confined to woodland on limestone hills.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 6057, 7980

**Maytenus crassipes**
Celastraceae  
Jamaica
Known only from central and western parishes, the species is found in woodland on rough limestone.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 6057, 7980

**Maytenus curtissii**
Celastraceae  
Malaysia (Peninsular Malaysia), Thailand
This species, confined to Thailand and the northern states of Peninsular Malaysia, inhabits open and closed rainforest below 300m. It is occasionally found in coastal and limestone forest.
**Assessor:** Chua, L.S.L.
**Refs:** 8464, 19073

**Maytenus cymosa**
Celastraceae  
Puerto Rico, Virgin Islands (British), Virgin Islands (US)
A species of dry coastal woodland. The greatest concentration is on Gorda Peak in the British Virgin Islands, where at least 100 plants exist. Elsewhere there are single trees, which may possibly have suffered in Hurricane Hugo, on St Croix and St Thomas in the US Virgin Islands and a population of about 52 plants in two sites in Puerto Rico.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 17124

**Maytenus dhofarensis**
Celastraceae  
Oman, Yemen (Former South Yemen)
Occurring in escarpment woodlands and the drier summit plateau, this species is endemic to the mountains extending from the Dhofar region in Oman to south-east Yemen. It is quite common but at risk from overcutting for domestic use, especially in Oman, where there has been a sharp rise in the population since 1975.
**Assessor:** Ghazanfar, S.A.
**Refs:** 16380

**Maytenus harenensis**
Celastraceae  
Ethiopia
A small tree endemic to Harena forest, an Afrotomontane remnant of forest on the Bale Mountain. The forest is disturbed by logging activities and the building of sawmills in the area has made the activity more intense.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1330, 18523

**Maytenus harrisi**
Celastraceae  
Jamaica
This small tree is known only from the type specimen, which was collected in montane woodland in St Ann.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 5653, 7980

**Maytenus jefaeana**
Celastraceae  
Panama
Only a few records of this species are known, all from the same region from Cerro Jefe and Cerro Azul towards the north-east of Panama City. The species appears to be rare and present in small numbers, threatened by a growing urban population and various industrial developments.
**Assessor:** Mitre, M.
**Refs:** 7980, 15037, 16772

**Maytenus matudai**
Celastraceae  
Mexico
**Assessor:** Ramirez-Marcial, N. & M. González-Espinosa
**Refs:** 4974

**Maytenus microcarpa**
Celastraceae  
Jamaica
A Cockpit Country endemic which is found in Clarendon and Trelawny Parishes in woodland on limestone.
**Assessor:** Kelly, D.L.
**Refs:** 5653, 19085

**Maytenus oleosa**
Celastraceae  
South Africa (Eastern Cape, KwaZulu-Natal)
A willow-like tree found along streams and rivers in southern KwaZulu-Natal and eastern Transkei in the Eastern Cape. It is often associated with Gymnosporia bachmannii on the rocky banks and beds of rivers and streams, confined to sandstone outcrops. The species has been recorded in fair numbers along several rivers in the Transkei. It is protected in the Umtamvuna Nature Reserve, Mkambati Game Reserve and several demarcated forest areas in the Transkei. In the latter, the lack of effective protection, combined with rapid human population increases and proposed developments threatens this and many of the other sandstone endemics in the region. There are also threats from agricultural activities and increasing settlement in southern KwaZulu-Natal.
**Assessor:** Hilton-Taylor, C. et al.
**Refs:** 689, 19218

**Maytenus ponceana**
Celastraceae  
Puerto Rico
A small tree of moist areas near Florida and Río Portugués, north of Ponce. The habitat is degraded and destroyed in places.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 5988, 7931, 7980, 17124

**Maytenus stipitata**
Celastraceae  
Mexico (Chiapas)
**Assessor:** Ramirez-Marcial, N. & M. González-Espinosa
**Refs:** 642
Maytenus williamsii
Celastraceae
Honduras
A cloud forest species of somewhat dubious nomenclature.
Assessor: Nelson, C.
Refs: 2260, 13995

Medemia abiadensis
Palmae
Sudan
A taxonomically-unresolved species restricted to desert oases along the White Nile. There is some indication the species is a small-fruited form of M. argun. No recent collections exist.
Assessor: Johnson, D.
Refs: 5165, 18839, 19118

Medemia argun
Palmae
Egypt, Sudan
Found in desert oases, this palm tree was rediscovered in Sudan in 1995 in small fragmented populations. There are signs of regeneration and seeds have been collected for cultivation. The populations in Egypt are assumed to be similarly small and fragmented.
Assessor: Johnson, D.
Refs: 6968, 9920, 19118

Medusagyne oppositifolia
Medusagynaceae
Seychelles
The jellyfish tree comes from a monospecific family endemic to the Seychelles. The species is confined to Mahé Island, where it occurs as scattered individuals or in small groups on massive granitic outcrops at Bernica, Mount Sebert, Copolia and Mount Jasmin. The seeds appear unable to germinate in the wild. It has been suggested that the species requires more humid conditions than are found in the vegetated rocky fissures where it is growing.
Assessor: Nature Protection Trust of Seychelles
Refs: 19023, 19025

Medusandra richardsiana
Medusandraceae
Cameroon
Endemic to the foothills of Mount Cameroon, the species occurs commonly in lowland rainforests in relatively well-protected areas: Mokoko Forest Reserve, Korup National Park, Bamuk Forest Reserve and the Rumpi Hills Forest Reserve. Where populations are unprotected they are exposed to encroaching agriculture and land settlement.
Assessor: World Conservation Monitoring Centre
Refs: 12597

Megalopanax rex
Araliaceae
Cuba
A monotypic genus endemic to Cuba. Collections have been made in western Cuba but now this tall tree appears to be locally confined to the montane forests of central Cuba, where only a few individuals have been seen. Fieldwork is needed to verify the number of remaining trees to assess whether the population is capable of recovery.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Meiogyne hainanensis
Aonanaceae
China (Guangdong - Hainan, Guangxi)
Recorded under the name Oncidostigma hainanensis in the China Plant Red Data book, the species is endemic to Hainan Island, with the exception of a population which apparently can be found at Hepu in Guangxi. It occurs in dense montane forest in the Guoling, Limu, Bawang and Jianfeng Mountains and also other localities. Rapid population declines have taken place because of increasing habitat loss through logging and clearing for cultivation.
Assessor: World Conservation Monitoring Centre
Refs: 11847, 19090

Melanochyla fasciculiflora
Anacardiaceae
Malaysia (Peninsular Malaysia)
A species of lowland forest, known from only two collections, both from Rengom Forest Reserve, a permanent forest reserve in Johore.
Assessor: Kochummen, K.M.
Refs: 19073

Melanochyla longipetiolar
Anacardiaceae
Malaysia (Peninsular Malaysia)
A lowland forest tree known only from three collections from Terengganu and Pahang. Populations are given a degree of protection within permanent forest reserves although there is still a threat from logging.
Assessor: Kochummen, K.M.
Refs: 19073

Melanodendron integrifolium
Compositae
St Helena
The most abundant of the endemic cabbage trees. A total of probably more than 1000 individuals grow in various localities on the central ridge, principally Diana's Peak, Actaeon, Cabbage Tree Road, near Sandy Bay, High Peak and the Depot. Populations are healthy, appearing to regenerate well, although under competitive pressure from invading introduced species. The genus is monotypic.
Assessor: Cronk, Q.C.B.
Refs: 9954, 11891, 19081

Melicope ballouii
Rutaceae
USA (Hawaii)
A small tree of montane wet forest on north-west Haleakala, Maui. Sites where the species was historically known to occur no longer appear to harbour populations. Only a relatively recently discovered locality in the Kipahulu Valley in Haleakala National Park still holds a population, which is estimated to consist of fewer than 300 individuals. Feral pigs, although presently controlled, require constant vigilance. The spread of introduced plants also presents a serious threat to the long-term survival of the species. It is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19087

Melicope christopherseni
Rutaceae
USA (Hawaii)
Known only from the Waianae Mountains on Oahu, the
species is uncommon and restricted to rainforest between 910 and 1220m from Puukaua to Mount Kaala.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope cinerea  
Rutaceae  
EN C2a  
USA (Hawaii)  
The main population occurs in the Waianae Mountains in lowland rainforest. There are also collections from Manoa and Palolo Valleys in the Koolau Mountains and a tentative specimen from Maui.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope cruciata  
Rutaceae  
EX  
USA (Hawaii)  
A small tree known only from a few collections, thought to be taken from boggy rainforest above 1000m, in Kaholuamanu and Mount Waiaaleale on Kauai. It is now probably extinct.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope fatuhivensis  
Rutaceae  
CR B1+2c  
French Polynesia (Marquesas Is.)  
The species is known only from Fatu Hiva in the Marquesas. The leaves are highly esteemed for their fragrance.  
Assessor: Florence, J.  
Refs: 14513

Melicope haleakalae  
Rutaceae  
EX  
USA (Hawaii)  
A small tree or shrub last seen in 1919 at Ukuele, on Maui, where it was found in rainforest at 1220m.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope haupuensis  
Rutaceae  
CR B1+2c, C2b  
USA (Hawaii)  
Originally known only from the type locality on the north side of Haupu, on Kauai, the species has now been found in Waimea Canyon. The first population no longer exists and at the second site there are two trees 1.6km apart. The habitat is frequently degraded by feral goats and the invasion of alien plants. The species is protected by the US Endangered Species Act.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372, 19038

Melicope hawaiensis  
Rutaceae  
VU A1ce  
USA (Hawaii)  
A variable species of dry, and occasionally moist, forest up to 1220m on Molokai, Lanai, Maui and Hawaii. The habitat is extensively degraded because of the impact of cattle, feral herbivores and introduced plants.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope indica  
Rutaceae  
EN B1+2c  
India (Tamil Nadu)  
A small tree of montane forest, occurring between 1800 and 2400m in a single locality in the Nilgiris.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799, 19144

Melicope jugosa  
Rutaceae  
VU B1+2c  
Malaysia (Sabah)  
Confined to forest between 2250 and 2400m, this shrub or tree is endemic to Sabah.  
Assessor: World Conservation Monitoring Centre  
Refs: 19017

Melicope kaalaensis  
Rutaceae  
VU A1ce  
USA (Hawaii)  
The species is endemic to the Waianae Mountains on Oahu, where it has been collected from lowland rainforest in an area extending from Puukaua to Piko Trail.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope knudsenii  
Rutaceae  
CR C2a, D1  
USA (Hawaii)  
On Kauai a total of four isolated individuals are known from Olokele Valley and Waimea. On Maui, at one time locally common, the species has been reduced to 20 or 30 plants in two populations at Auwahi and Kanaio. The habitat has been steadily degraded by grazing and the invasion of introduced plants. The species is protected by the US Endangered Species Act.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372, 19038

Melicope macropus  
Rutaceae  
EN B1+2c  
USA (Hawaii)  
Endemic to Kauai, the species is known from just a few collections from two localities, the Robinson's summer house and Kaholuamanu.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope makahae  
Rutaceae  
EN C2a  
USA (Hawaii)  
This shrubby tree is endemic to Oahu, where it occurs in rainforest up to an altitude of 1220m in the Waianae Mountains from Palawai to Makaha Valley.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Melicope mucronulata  
Rutaceae  
CR B1+2c, C2h, D1  
USA (Hawaii)  
A small tree of dryland forest, known from three collections taken in 1920 from the southern slope of Haleakala on East Maui, and from a single collection of 1985 from Kupaa Gulch on Molokai. The Maui population is likely to be extinct. The population on Molokai consists of just three individuals. Goats are evidently browsing the trees and there is an immediate threat of invasion by molasses grass. It is protected by the US Endangered Species Act.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372, 19087
### Species Summaries

<table>
<thead>
<tr>
<th>Species Name</th>
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<tr>
<td><em>Melicope nukuhivensis</em></td>
<td>Rutaceae</td>
<td>LR/nt</td>
<td>French Polynesia (Marquesas Is.)</td>
<td>A small glabrous tree or shrub, endemic to Nuku Hiva. Assessor: Florence, J. Refs: 14513</td>
</tr>
<tr>
<td><em>Melicope obovata</em></td>
<td>Rutaceae</td>
<td>EX</td>
<td>USA (Hawaii)</td>
<td>Presumed to be extinct, this species is known only from the type, of unknown locality but thought to originate from Maui. Assessor: World Conservation Monitoring Centre Refs: 3372</td>
</tr>
<tr>
<td><em>Melicope orbicularis</em></td>
<td>Rutaceae</td>
<td>EN C2a</td>
<td>USA (Hawaii)</td>
<td>A small tree endemic to Maui, where it is restricted to medium-elevation rainforest from Pohakea to Honokahua in the west and from Makawao to Koolau Gap in the east. Assessor: World Conservation Monitoring Centre Refs: 3372</td>
</tr>
<tr>
<td><em>Melicope ovalis</em></td>
<td>Rutaceae</td>
<td>EN B1+2cde</td>
<td>USA (Hawaii)</td>
<td>A species which once grew in the mountains above Hana, on Maui, from where the type specimen was collected. Recent observations suggest that the taxon occurs over an area of several hundred hectares in Kipahulu Valley, where it is said to be more common than <em>M. ballouii</em>. The species is particularly vulnerable to seed predation by rats and insects. Invasive plants are also prevalent in the area. It is protected by the US Endangered Species Act. Assessor: World Conservation Monitoring Centre Refs: 3372, 19087</td>
</tr>
<tr>
<td><em>Melicope pallida</em></td>
<td>Rutaceae</td>
<td>EN C2a, D1</td>
<td>USA (Hawaii)</td>
<td>Originally known from localities on Oahu and Kauai, the species has been reduced to six populations confined to the latter island. About 156 individuals have been counted. The habitat continues to be damaged by grazing feral animals and invasive plants. The species is protected by the US Endangered Species Act. Assessor: World Conservation Monitoring Centre Refs: 3372, 7274, 19038</td>
</tr>
<tr>
<td><em>Melicope paniculata</em></td>
<td>Rutaceae</td>
<td>EX</td>
<td>USA (Hawaii)</td>
<td>Only three collections have been made of this small tree. These have been taken from populations on the upper Lihue Ditch Trail at 875m and from Waihawa Bog at 380m. The species has not been found in recent years and is now probably extinct. Assessor: World Conservation Monitoring Centre Refs: 3372</td>
</tr>
<tr>
<td><em>Melicope puberula</em></td>
<td>Rutaceae</td>
<td>EN B1+2c</td>
<td>USA (Hawaii)</td>
<td>A shrub or small tree reported to be scarce and restricted to rainforest above 1070m, from Kalalau and Puukila Look-outs. Assessor: World Conservation Monitoring Centre Refs: 3372</td>
</tr>
<tr>
<td><em>Melicope quadrangularis</em></td>
<td>Rutaceae</td>
<td>CR D1</td>
<td>USA (Hawaii)</td>
<td>Known only from the type material collected in 1909 from Wahiawa Bog on Kauai, the species had been presumed extinct when a small population of 13 individuals was discovered in 1991. Potential threats of overcollecting and invading alien plants are present. The species is protected by the US Endangered Species Act. Assessor: World Conservation Monitoring Centre Refs: 3372, 7274, 19038</td>
</tr>
<tr>
<td><em>Melicope saint-johnii</em></td>
<td>Rutaceae</td>
<td>EN C2a, D1</td>
<td>USA (Hawaii)</td>
<td>Endemic to Oahu, eight populations, containing fewer than 150 individuals, are found in an area between Puu Kaau and Puu Kanoea to Mauna Kapu in the Waianae and Koolau Mountains. The species grows to an elevation of 853m on forested ridges. Feral goats, pigs and invasive plants are continuing threats to the native flora. The species is protected by the US Endangered Species Act. Assessor: World Conservation Monitoring Centre Refs: 3372, 12359, 19168</td>
</tr>
<tr>
<td><em>Melicope sandwicensis</em></td>
<td>Rutaceae</td>
<td>EN C2a</td>
<td>USA (Hawaii)</td>
<td>A species confined to Oahu, where it is known from populations occurring in lowland rainforest in the Waianae Mountains and from Kahana Iki to Waimalu in the Koolau Mountains. Assessor: World Conservation Monitoring Centre Refs: 3372</td>
</tr>
<tr>
<td><em>Melicope sororia</em></td>
<td>Rutaceae</td>
<td>VU B1+2c</td>
<td>Malaysia (Sabah)</td>
<td>A shrub or small tree endemic to Sabah. It is restricted to forest between the altitudes of 1500 and 2400m. Assessor: World Conservation Monitoring Centre Refs: 19017</td>
</tr>
<tr>
<td><em>Melicope subunifoliolata</em></td>
<td>Rutaceae</td>
<td>VU B1+2c</td>
<td>Malaysia (Sabah)</td>
<td>Endemic to Sabah, this shrub or tree occurs in primary montane forest between 1200 and 2600m, descending occasionally to as low as 180m. Assessor: World Conservation Monitoring Centre Refs: 19017</td>
</tr>
<tr>
<td><em>Melicope tahitensis</em></td>
<td>Rutaceae</td>
<td>LR/nt</td>
<td>French Polynesia (Society Is.)</td>
<td>Populations are recorded from Moorea and Tahiti. Assessor: Florence, J. Refs: 14513</td>
</tr>
<tr>
<td><em>Melicope waialealae</em></td>
<td>Rutaceae</td>
<td>EN C2a</td>
<td>USA (Hawaii)</td>
<td>A many-branched shrub or tree which occurs in open...</td>
</tr>
</tbody>
</table>
bogs and bog hummocks, including Wahiawa Bog and an area ranging from Alakai Swamp to Mount Waialeale on Kauai.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 3372

**Melicope wawraeana**

**Rutaceae**

**VU D2**

**USA (Hawaii)**

A small forest tree known primarily from occurrences in the Koolau Mountains and an occasional appearance in the Waianae Mountains on Oahu. A single collection has also been made from Wahiawa Bog on Kauai.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 3372

**Melicope zahlbruckneri**

**Rutaceae**

**CR B1+2c, C2ab, D1**

**USA (Hawaii)**

To date the species has been found in three locations on Hawaii. Only one of them, a fenced site at Kipuka Pualu, still harbours an extant population, containing 30 to 35 individuals. Regeneration appears to be taking place. There are threats of leafhopper infestations, invasive plants and rat damage. The species is protected by the US Endangered Species Act.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 3372, 19037

**Melicytus flexuosus**

**Violaceae**

**LR/nt**

**New Zealand (North Is., South Is.)**

A shrub or small tree, occurring in scattered localities in the North and South Islands. It appears to be a poor competitor and has suffered from the lack of periodic disturbance and available sites to recolonise.

**Assessor: de Lange, P.J.**

**Refs:** 19133, 19134

**Meliosma cordata**

**Meliosmaceae**

**DD**

**Panama**

A poorly known species, recorded only from the original collection from Cerro Tute in Verguas. It is possible that a population still exists there.

**Assessor: Mitré, M.**

**Refs:** 7980, 15037, 16772

**Meliosma linearifolia**

**Meliosmaceae**

**EN C2a**

**Panama**

A species of lowland semi-evergreen rainforest, known from two geographically close locations: one in Santa Rita in Colón and the other in Cerro Azul in Panamá Province. The population in Santa Rita is threatened by increasing encroachment of the forest. More moderate pressures affect the larger Cerro Azul population.

**Assessor: Mitré, M.**

**Refs:** 7980, 15037, 16772

**Meliosma sirensis**

**Meliosmaceae**

**VU D2**

**Peru**

Known only from the type collection, the species occurs in *elfin* forest in Huánuco.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 1984

**Meliosma youngii**

**Meliosmaceae**

**VU D2**

**Peru**

Known only from the type collection, the species occurs in forest in the department of San Martín.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 1984

**Memecylon acuminatum var. acuminatum**

**Melastomataceae**

**LR/cd**

**Malaysia (Peninsular Malaysia), Singapore**

A primary hill forest species, which is not restricted in range and occurs in protective forest within the permanent forest estate.

**Assessor: Chua, L.S.L.**

**Refs:** 9199, 11647, 19073

**Memecylon arnottianum**

**Melastomataceae**

**CR B1+2c**

**Sri Lanka**

A tree occurring in lowland wet evergreen forest in south-west Sri Lanka. In the past it has been found in Kottawa, Hinidumkanda and Kanneliya Forest Reserves and in Sinharaja Biosphere Reserve. The recent forest surveys conducted for the National Conservation Review failed to find these or any other populations.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 9176, 17195, 19112

**Memecylon bequaertii**

**Melastomataceae**

**VU B1+2c**

**Democratic Republic of Congo, Uganda**

**Assessor: *MUIENR**

**Refs:** 1308, 9605, 9837, 10961, 16021

**Memecylon candidum**

**Melastomataceae**

**VU B1+2c**

**Cameroon, Nigeria**

Confined to an area extending from south-east Nigeria to Cameroon, this understory tree is not uncommon. It occurs and is protected in the Oban Hills in Cross River National Park. Outside protected areas deforestation has occurred on a large scale.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 4977, 11504

**Memecylon cinereum**

**Melastomataceae**

**VU B1+2c**

**Malaysia (Peninsular Malaysia), Singapore**

A species of lowland hill forest, occurring along streams throughout Peninsular Malaysia and Singapore. The habitat is under pressure from logging.

**Assessor: Chua, L.S.L.**

**Refs:** 9199, 19073

**Memecylon clarkeanum**

**Melastomataceae**

**VU A1c**

**Sri Lanka**

A tree scattered in the lowland wet evergreen forests of south-west Sri Lanka.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 17195

**Memecylon corticosum**

**Melastomataceae**

**LR/cd**

**Malaysia (Peninsular Malaysia)**

A hill forest species, which is not restricted in range and...
occurs in protected areas, such as national parks and forest reserves.
**Assessor:** Chua, L.S.L.
**Refs:** 8464, 19073

**Memecylon cuneatum**
Melastomataceae  
Sri Lanka
This rare species turned up in only four forest localities, including the Peak Wilderness wildlife sanctuary, during the comprehensive forest surveys conducted for the recent National Conservation Review.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19112

**Memecylon discolor**
Melastomataceae  
Sri Lanka
A rare species found in only two forest localities in the wet zone during the comprehensive forest surveys conducted for the recent National Conservation Review.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19112

**Memecylon elegani**
Melastomataceae  
Seychelles
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 16212, 17229

**Memecylon elegantulum**
Melastomataceae  
Sri Lanka
A species confined to lowland wet evergreen forest in south-west Sri Lanka. Although previously found at a single site in Sinharaja Biosphere Reserve, it was not found again during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 9176, 17195, 19112

**Memecylon ellipticum**
Melastomataceae  
Sri Lanka
Endemic to south-west Sri Lanka, this rare tree is scattered in the lowland wet evergreen forests. This species was found in only four of the National Conservation Review surveyed forest sites.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 8203, 17195, 19112

**Memecylon flavescens**
Melastomataceae  
India (Tamil Nadu)
A species of high-altitude evergreen shola forest known only from Kundha and Avalanche in the Nilgiri Hills. It appears to have become extremely scarce and has not been found in more recent decades despite repeated searches.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 4799, 16438

**Memecylon floridum**
Melastomataceae  
Malaysia (Peninsular Malaysia), Singapore
This species inhabits open and closed rainforest up to an altitude of 1200m, in Peninsular Malaysia and Singapore.
**Assessor:** Chua, L.S.L.
**Refs:** 9199, 19073

**Memecylon gardneri**
Melastomataceae  
Sri Lanka
An extremely rare tree, occurring in lowland wet evergreen forest in south-west Sri Lanka. In the past populations were known from Kanneliya and Gilimale Forest Reserves and Sinharaja Biosphere Reserve, but the species was not found in the recent forest surveys conducted for the National Conservation Review.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 9176, 17195, 19112

**Memecylon giganteum**
Melastomataceae  
Sri Lanka
A rare species which was found in only four wet zone forests during the extensive forest surveys conducted for the National Conservation Review.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19112

**Memecylon gracillimum**
Melastomataceae  
Sri Lanka
Only four trees of this species were discovered in a single forest site during the recent forest surveys conducted for the National Conservation Review.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 8203, 18796, 19112

**Memecylon grande**
Melastomataceae  
Sri Lanka
A rare tree confined to the lowland wet evergreen forests of south-west Sri Lanka. This species was found in eight forest sites during the extensive forest surveys conducted for the National Conservation Review.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 17195, 19112

**Memecylon hookeri**
Melastomataceae  
Sri Lanka
A species found in only 10 localities during the extensive forest surveys conducted for the National Conservation Review.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19112

**Memecylon hulletti**
Melastomataceae  
Malaysia (Peninsular Malaysia)
An endemic species of Peninsular Malaysia, where it is confined to the lowland and hill rainforests of Johore.
**Assessor:** Chua, L.S.L.
**Refs:** 17140, 19073
**Memecylon kunstleri**  
Melastomataceae  
VU B1+2c  
Malaysia (Peninsular Malaysia)  
An endemic tree of Peninsular Malaysia, inhabiting primary rainforest.  
Assessor: Chua, L.S.L.  
Refs: 8464, 19073

**Memecylon lawsonii**  
Melastomataceae  
VU B1+2c  
India (Kerala, Tamil Nadu)  
A small tree of submontane forest. It has been collected only seldom from localities in the Anamalai Hills, the Nilgiris and Wayanad area.  
Assessor: World Conservation Monitoring Centre  
Refs: 832, 19144

**Memecylon leucanthemum**  
Melastomataceae  
VU A1c, B1+2c  
Sri Lanka  
A species found in only eight localities in the districts of Kurunegala, Badulla and Monarangala during the extensive forest surveys conducted for the National Conservation Review.  
Assessor: World Conservation Monitoring Centre  
Refs: 19112

**Memecylon macrocarpum**  
Melastomataceae  
VU A1c, B1+2c  
Sri Lanka  
A tree occurring in tropical wet lowland and montane forest. In the extensive surveys conducted for the National Conservation Review, this species was discovered in eight localities.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 12129, 18796, 19112

**Memecylon macrophyllum**  
Melastomataceae  
EN B1+2c  
Sri Lanka  
During the extensive surveys conducted for the National Conservation Review between 1991 and 1996, this species was discovered in only three forest localities.  
Assessor: World Conservation Monitoring Centre  
Refs: 19112

**Memecylon orbiculare**  
Melastomataceae  
CR B1+2c  
Sri Lanka  
Only a single individual was found during the extensive forest surveys conducted for the National Conservation Review.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 18796, 19112

**Memecylon ovoidum**  
Melastomataceae  
VU A1c, B1+2c  
Sri Lanka  
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka. During the extensive National Conservation Review forest surveys, this species was recorded in seven localities.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 17195, 18796, 19112

**Memecylon revolutum**  
Melastomataceae  
EN B1+2c  
Sri Lanka  
A species apparently restricted to the wet zone. During the extensive National Conservation Review forest surveys, this species was recorded in five forest localities.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 18796, 19112

**Memecylon rhinophyllum**  
Melastomataceae  
CR B1+2c  
Sri Lanka  
A tree restricted to lowland wet evergreen forest in south-west Sri Lanka. It is apparently locally common but confined to a single forest reserve. Only nine individuals were discovered in at a single site during the extensive National Conservation Review forest surveys.  
Assessor: World Conservation Monitoring Centre  
Refs: 17195, 19112

**Memecylon rostratum**  
Melastomataceae  
VU A1c  
Sri Lanka  
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 9176, 17195

**Memecylon rotundatum**  
Melastomataceae  
VU A1c, B1+2c  
Sri Lanka  
During the extensive National Conservation Review forest surveys, this species was found in only six of the sites.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 18796, 19112

**Memecylon royenii**  
Melastomataceae  
VU A1c, B1+2c  
Sri Lanka  
A species found in only six forest localities in Ratnapura District and in a single locality in Kalutara District during the extensive forest surveys conducted for the National Conservation Review.  
Assessor: World Conservation Monitoring Centre  
Refs: 19112

**Memecylon sessilicarpum**  
Melastomataceae  
DD  
Mozambique  
Assessor: Bandeira, S.  
Refs: 5117, 18965

**Memecylon sispirensis**  
Melastomataceae  
CR B1+2c  
India (Tamil Nadu)  
The type locality is in Sispara in the Nilgiri Hills. The species has not been found there since it was first discovered. It is possible the population has been wiped out by the large-scale conversion of forest to plantation crops. Elsewhere there is an occurrence further south in submontane forest in the Palni Hills.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799, 19144

**Memecylon subramanii**  
Melastomataceae  
EN B1+2c  
India (Tamil Nadu)  
A small tree of submontane forest, collected only from the Agastyamalai range. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost

352
1000km² of forest are now under protection within sanctuaries.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19144

**Memecylon sylvaticum**
Melastomataceae
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 17195

**Memecylon teiense**
Melastomataceae
Kenya
A shrub or tree, endemic to forest at Ngangao and Mbololo in the Teita Hills.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1308, 6396, 13072

**Memecylon urceolatum**
Melastomataceae
Sri Lanka
This species was found in seven forest sites during the extensive forest surveys conducted for the National Conservation Review.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19112

**Memecylon varians**
Melastomataceae
Sri Lanka
A tree confined to the lowland wet evergreen forests of south-west Sri Lanka.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 17195

**Memecylon wallichii**
Melastomataceae
Malaysia (Peninsular Malaysia)
An endemic tree of Peninsular Malaysia, inhabiting primary rainforest up to 330m.

**Assessor:** Chua, L.S.L.
**Refs:** 8464, 19073

**Meriania ampla**
Melastomataceae
Ecuador
A tree endemic to the High Andes of Ecuador. Currently the species is known only from montane and upper montane cloud forest in Moronita-Santiago Province.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119, 19120

**Meriania campii**
Melastomataceae
Ecuador
An endemic of the High Andes of Moronita-Santiago Province in Ecuador. The habitat of this species is cloud forest between 1800 and 3350m.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119

**Meriania crassiramos**
Melastomataceae
Guyana, Venezuela
A tree restricted to upland rainforest on Mount Roraima on the Venezuela-Guyana border. The area is protected but affected to some extent by tourism.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5651, 9867

**Meriania cuneifolia ssp. cuneifolia**
Melastomataceae
Ecuador
This subspecies is endemic to Ecuador, where it inhabits cloud forest between 1100 and 2200m in Zamora-Chinchipe.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119

**Meriania cuneifolia ssp. subandina**
Melastomataceae
Ecuador
An endemic tree of Ecuador, occurring in montane cloud forest between 1100 and 2400m in Zamora-Chinchipe.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119

**Meriania drakei ssp. chontalensis**
Melastomataceae
Ecuador
An endemic of the Ecuadorean High Andes, this small tree inhabits montane cloud forest between 1600 and 2700m in Moronita-Santiago, Loja, and Zamora-Chinchipe.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119

**Meriania drakei ssp. drakei**
Melastomataceae
Ecuador
An endemic tree of the Ecuadorean High Andes. This subspecies inhabits montane cloud forest between 1600 and 2700m in Moronita-Santiago, Loja, and Zamora-Chinchipe.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119

**Meriania furvanthera**
Melastomataceae
Ecuador
A small tree of montane cloud forest, endemic to the Ecuadorean High Andes and currently only known from the provinces of Loja and Zamora-Chinchipe.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119

**Meriania grandiflora**
Melastomataceae
Costa Rica, Panama
A few collections have recently been made between 1800 and 2000m on the Cordillera de Talamanca, mostly within La Amistad National Park, Costa Rica. Elsewhere the species is known from Panama in the Cordillera Central in Cocle towards the west, where it occurs fairly commonly in cloud forest above 800m. A number of populations here are in reserves of various kinds. Where no protection exists the habitat is susceptible to clearance and conversion into agriculture.

**Assessor:** Mitré, M.
**Refs:** 16772

**Meriania lucanthera**
Melastomataceae
Jamaica
The species occurs in the eastern half of the island in
moist thickets and forested areas. A variety is reported in Cuba.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 6057, 7980

**Meriania panamensis**
Melastomataceae EN B1+2c Panama
Up to the present, the species has been found only in Chiriqui around Volcán Barú, where it occurs in the highest part of the country in cloud forest between 1800 and 3300m. There are tourism and agricultural developments in the area which may affect certain populations. Only part of the total population is contained within Barú National Park.

**Assessor: Mitre, M.**

**Refs:** 3913, 7272, 7980, 16772

**Meriania peltata**
Melastomataceae EN B1+2c Colombia
Endemic to Colombia, the species is recorded to Cundinamarca and Valle.

**Assessor: Calderon, E.**

**Refs:** 19069

**Meriania pichinchensis**
Melastomataceae VU B1+2c Ecuador
A small tree, up to 6m tall, endemic to Ecuador. This species inhabits cloud forest at an altitude of 2750m, and at present is only known from Sucumbios Province.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 2989, 19119

**Meriania rigida**
Melastomataceae VU B1+2c Ecuador
An endemic tree of montane and upper montane cloud forest in the High Andes of Ecuador. The species is currently known only from the provinces of Azuay, Loja and Zamora-Chinchipe.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 2989, 6986, 19119

**Meriania versicolor**
Melastomataceae CR B1+2c Colombia
Possibly now extinct, the species has been recorded only from Cundinamarca.

**Assessor: Calderon, E.**

**Refs:** 19069

**Merrillia caloxylon**
Rutaceae VU B1+2c Indonesia (Sumatra), Malaysia (Peninsular Malaysia (ex), Sabah), Thailand
Solitary trees of this monotypic genus are scattered in lowland moist primary and secondary forest on stream banks and hill sides. It has been collected only once, in Sabah from a stream bank in secondary forest in Sandakan. The durable, handsome wood has been used in the past in Peninsular Malaysia to make small implements. It is now presumed to be extinct in this region.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 1685, 5550, 17140, 19017

**Meryta brachypoda**
Araliaceae CR B1+2c, C2a French Polynesia (Tubuai Is.), Pitcairn Islands
A shrub or tree recorded from Raivavae, Tubuai and Rapa Iti in the Tubuai Group and Henderson Island in the Pitcairn Group. The Raivavae population is in a critical state and the population on Henderson consists of fewer than six adult plants in tall forest on the north-west beach. Henderson Island is a World Heritage Site.

**Assessor: Florence, J.**

**Refs:** 13604, 14513

**Meryta choistantha**
Araliaceae VU D2 French Polynesia (Tubuai Is.)
An endemic to Rapa Iti.

**Assessor: Florence, J.**

**Refs:** 14513

**Meryta drakeana**
Araliaceae DD French Polynesia (Society Is.)
An endemic to Tahiti.

**Assessor: Florence, J.**

**Refs:** 14513

**Meryta lanceolata**
Araliaceae LR/nt French Polynesia (Society Is.)
Populations are recorded from Moorea and Tahiti.

**Assessor: Florence, J.**

**Refs:** 14513

**Meryta lucida**
Araliaceae VU D2 French Polynesia (Society Is.)
An endemic to Raiatea.

**Assessor: Florence, J.**

**Refs:** 14513

**Meryta mauruensis**
Araliaceae DD French Polynesia (Society Is.)
An endemic to Tahiti.

**Assessor: Florence, J.**

**Refs:** 14513

**Meryta raiateensis**
Araliaceae DD French Polynesia (Society Is.)
Populations are recorded from Bora Bora, Huahine, Raiatea and Tahaa.

**Assessor: Florence, J.**

**Refs:** 14513

**Meryta salicifolia**
Araliaceae CR B1+2c French Polynesia (Society Is.)
An endemic to Tahiti.

**Assessor: Florence, J.**

**Refs:** 14513

**Meryta sinclairii**
Araliaceae VU D2 New Zealand (North Is.)
The species occurs in localised populations on the Three Kings Islands and Whatupuke Island.

**Assessor: World Conservation Monitoring Centre**

**Refs:** 902, 19133
Meryta sonchifolia
Araliaceae
VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Mesogyne insignis
Moraceae
VU B1+2b
São Tomé & Príncipe (São Tomé), Tanzania
The bulk of the population is found in areas of moist evergreen forest on the eastern mountains of Tanzania. Another population, which shows some morphological distinctness and was originally published under the name of M. henriquesii, occurs on the island of São Tomé. The population here is small and found in areas which were forest at the turn of the century but are now cultivated or secondary forest. The genus is monospecific.
Assessor: World Conservation Monitoring Centre
Refs: 8814, 10080, 11631

Mesua kochummenia
Guttiferae
VU B1+2c
Malaysia (Peninsular Malaysia)
Confined to lowland forest in south-east Johore and south-east Pahang, the species occurs in areas which are earmarked for development. It is also reported to be present in Endau Rompin National Park.
Assessor: Kochummen, K.M.
Refs: 17140, 19073

Mesua manii
Guttiferae
CR B1+2c
India (Andaman and Nicobar Is.; - Andaman Is.)
A small tree of evergreen rainforest, endemic to South Andaman Island. The habitat has been severely deforested and no living specimens have been found since the type collection. It is possible that a population exists in the relatively intact Jarwa Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 7147

Mesua persegloei
Guttiferae
VU D2
Malaysia (Peninsular Malaysia)
A montane forest tree known only from a single collection from 1500m in the Cameron Highlands, Pahang. The species is thought to be locally common. There are protected forests in the Cameron Highlands, but some areas are also given over to tea plantations.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Mesua rosea
Guttiferae
LR/ld
Malaysia (Peninsular Malaysia)
A lowland forest species, known from only a few localities in south-east Johore. Lowland areas in this state have largely been converted to agriculture. Protected populations are found in Gunong Panli Forest Reserve and Gunung Belumut. The genus is currently undergoing revision.
Assessor: Kochummen, K.M.
Refs: 17140, 19073

Mesua stylosa
Guttiferae
CR A1c, B1+2c, D1
Sri Lanka
Restricted to swamp forest in the western lowlands of Sri Lanka, this ironwood tree is threatened because its habitat is being converted for rice cultivation. In the recent National Conservation Review forest survey, only four individuals were discovered in a single locality.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 18796, 19104, 19112

Metaporana obtusa
Convulvulaceae
VU D2
Yemen (Socotra)
An unusually arborescent member of Convulvulaceae. Populations are confined to scattered individuals along wadis in the dry west side of the island. It is one of the only trees to remain green during the dry season and the leaves provide an important browse for livestock.
Assessor: Miller, A.G.
Refs: 2354, 19083

Metasequoia glyptostroboides
Taxodiaceae
CR A1c, C2a
China (Hubei, Hunan, Sichuan)
Confined to slightly waterlogged areas of open forest, the species is known from sites in Shizhu in Sichuan, Lichuan in Hubei and Longshan and Sangzhi in Hunan. The subpopulations appear to have been reduced to a few mature individuals. Surrounding areas are heavily cultivated and there are poor prospects for natural regeneration. All large trees are protected but the habitat is not.
Assessor: SSC Conifer Specialist Group
Refs: 1818, 11847

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Metrosideros bartlettii
Myrtaceae
EN D1
New Zealand (North Is.)
A large tree, first discovered in 1975 near Cape Reinga. At present, the entire known population comprises 30 trees at three sites. The species is associated with streamside or wetlands, a distribution which probably reflects land clearance patterns rather than a genuine preference. It favours dense forest, where it germinates in the the crowns of canopy trees such as Vitis lucens and Beilschmiedia tarairi. Further occurrences are expected to be discovered and recovery work is under way to ensure the survival of known populations. There is particular pressure from browsing pigs, possums and livestock. Although widely cultivated, most ex situ plantings are derived from a single tree.
Assessor: de Lange, P.J.
Refs: 902, 9800, 19133, 19134

Species Summaries
Metrosideros humboldtiana
Myrtaceae
New Caledonia
A bushy shrub or tree occurring in the high-altitude maquis of various ultramafic massifs in the south, including Mont Humboldt, Pic du Rocher, Montagne des Sources. The latter is a Strict Nature Reserve and provides effective protection for the population.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Metrosideros ochrantha
Myrtaceae
Fiji
This small tree is restricted to Mount Kasi and its vicinity, Vanua Levu. Only the type collection is known. It occurs in dense low forest between 300 and 430m.
Assessor: World Conservation Monitoring Centre
Refs: 18818

Metrosideros polymorpha var. newellii
Myrtaceae
USA (Hawaii)
This variety represents the most threatened of about eight varieties of this widely dominating and variable Hawaiian endemic. It is restricted to remaining forms of forest and shrubland, usually along watercourses, from low to middle elevation on Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Metrosideros punctata
Myrtaceae
New Caledonia
A bushy shrub or small tree which is well represented in the southern ultramafic massifs and also on isolated massifs in the north. It occurs in low forest or maquis. In many places the habitat is degraded and exposed to threats of mining, fires and clearance.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Metroxylon amicarum
Palmae
Federated States of Micronesia
A palm tree endemic to Ponape and Truk in the Caroline Islands. This scarce species is found in moist forest up to 550m in mountainous areas which are remote and unattactive for settlement.
Assessor: Johnson, D.
Refs: 19118

Mettleniusa cundinamarcensis
Icacinaceae
Colombia
Mettleniusa is a small genus of trees, endemic to north-west South America. This species is recorded from Cundinamarca.
Assessor: Calderon, E.
Refs: 19069

Mettleniusa edulis
Icacinaceae
Colombia
Mettleniusa is a small genus of trees, endemic to north-west South America. This species is recorded from Guajira.
Assessor: Calderon, E.
Refs: 19069

Mettleniusa huilensis
Icacinaceae
Colombia
Mettleniusa is a small genus of trees, endemic to north-west South America. This species is recorded from Huila.
Assessor: Calderon, E.
Refs: 19069

Mettleniusa santanderensis
Icacinaceae
Colombia
Mettleniusa is a small genus of trees, endemic to north-west South America. This species is recorded from Santander.
Assessor: Calderon, E.
Refs: 19069

Mezilaurus itauba
Lauraceae
Bolivia, Brazil, Ecuador, French Guiana, Peru, Suriname
Assessor: Americas Regional Workshop
Refs: 6493, 7957, 12109, 14291, 15478, 15714, 19179

Mezilaurus navallium
Lauraceae
Brazil
Assessor: Pedralli, G.
Refs: 19098, 19142

Mezzetta herveyana
Annonaceae
Malaysia (Peninsular Malaysia)
Known only from a single collection found in lowland rainforest in Malacca, it is uncertain if this species still exists.
Assessor: Kochummen, K.M.
Refs: 19073

Michelia aenea
Magnoliaceae
China (Yunnan), Viet Nam
Assessor: Sun, W.
Refs: 9274, 11530, 19174

Michelia coriacea
Magnoliaceae
China (Yunnan)
The species is known only from Xichou in the south-east.
Assessor: Sun, W.
Refs: 19138, 19174

Michelia hypolampra
Magnoliaceae
China (Guangdong - Hainan, Guangxi, Yunnan)
Scattered occurrences are known from Hainan Island, southern Yunnan and south-west Guangxi. They are restricted to remaining areas of lowland monsoon forest, which have been severely reduced by high rates of habitat clearance and logging. The species has some value as a source of medicine and condiment.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 9274, 11847
**Michelia ingrata**  
Magnoliaceae  
EN B1+2c  
China (Yunnan)  
Assessor: Sun, W.  
Refs: 19138, 19174

**Michelia odora**  
Magnoliaceae  
LR/nt  
China (Fujian, Guangdong, Guangdong - Hainan, Guangxi, Guizhou, Hunan, Jiangxi, Yunnan), Viet Nam  
Previously known under the monotypic genus *Tsengiodendron*, this species is relatively widespread in lowland moist forest within an area extending from southern China to northern Viet Nam. Population declines have occurred because of extensive logging and habitat clearance. Mature trees are said to be only rarely encountered.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11530, 11847

**Michelia panduanu**  
Magnoliaceae  
VU B1+2c  
India (Meghalaya, Nagaland)  
A species of open sunny places in moist forest in northeast India. There have been no recent collections and both the species and its habitat are in decline because of overexploitation of the timber resources.  
Assessor: World Conservation Monitoring Centre  
Refs: 2538

**Michelia wilsonii**  
Magnoliaceae  
EN B1+2c  
China (Hubei, Sichuan)  
A species restricted to mountainous areas on the south to west fringe of the Sichuan basin and Lichuan in western Hubei. It occurs in moist broadleaved forest between 700 and 1600m. Uncontrolled logging and habitat clearance are believed to have caused considerable population declines.  
Assessor: World Conservation Monitoring Centre  
Refs: 1818, 9274, 11242, 11847

**Michelia xanthantha**  
Magnoliaceae  
EN B1+2c  
China (Yunnan)  
An endemic to Xishuangbanna.  
Assessor: Sun, W.  
Refs: 19138, 19174

**Miconia abbreviata**  
Melastomataceae  
LR/nt  
Peru  
Relatively widespread, the species is endemic to lowland forests of Peru.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Miconia aligera**  
Melastomataceae  
VU B1+2c  
Peru  
This species appears to be confined to Andean cloud forest above 2000m in the department of Cuzco.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Miconia alpina**  
Melastomataceae  
VU B1+2c  
Peru  
Occurring above 3500m, the species is recorded from areas of forest in the departments of Ancash, Cuzco and Huánuco.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Miconia aspratilis**  
Melastomataceae  
VU B1+2c  
Ecuador  
This small tree is endemic to the High Andes of Ecuador, currently known only from areas of cloud forest, between 2700 and 3400m, in Azuay Province.  
Assessor: World Conservation Monitoring Centre  
Refs: 19119, 19120

**Miconia ayacuchensis**  
Melastomataceae  
VU B1+2c  
Peru  
A species which is known from *elfin forest in the department of Ayacucho.*  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Miconia bailloniana**  
Melastomataceae  
LR/nt  
Peru  
Endemic to Peru, the species occurs relatively widely in forest up to 2000m.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Miconia barbipilis**  
Melastomataceae  
VU B1+2c  
Ecuador  
A shrub or tree up to 3m tall, endemic to the High Andes of Ecuador and currently known from cloud forest, between 2250 and 3450m, in the province of Morona-Santiago.  
Assessor: World Conservation Monitoring Centre  
Refs: 2989, 6596, 19119

**Miconia beneolens**  
Melastomataceae  
VU B1+2c  
Ecuador  
An endemic tree to Loja Province in the Ecuadorean High Andes, inhabiting cloud forest between 1500m and 3000m.  
Assessor: World Conservation Monitoring Centre  
Refs: 2989, 6596, 19119, 19120

**Miconia bipartialis**  
Melastomataceae  
VU B1+2c  
Ecuador  
A shrub or tree endemic to Azuay Province in the High Andes of Ecuador, where it inhabits montane cloud forest between 2400 and 3000m.  
Assessor: World Conservation Monitoring Centre  
Refs: 2989, 6596, 19119, 19120

**Miconia brevistylis**  
Melastomataceae  
VU B1+2c  
Peru  
Presently known only from the department of Huánuco, the species occurs in forest and shrubland between 1500 and 2000m.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984
**Miconia caesariata**
Melastomataceae
Ecuador
A species of tree or shrub, endemic to the Ecuadorean Andes, where it is confined to the area of the Sangay National Park. The development of a road through the park threatens the integrity of the forest habitats.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 5651, 19119

**Miconia caudatum**
Melastomataceae
Ecuador
An endemic of the Ecuadorean High Andes, currently known to occur in areas of cloud forest, between 2200 and 3200m, in the provinces of El Oro, Loja and Zamora-Chinchipe.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119, 19120

**Miconia calophylla**
Melastomataceae
Peru
A species recorded from forest between 2000 and 2500m in the department of Pasco.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Miconia campii**
Melastomataceae
Ecuador
A shrub or tree endemic to the High Andes of Ecuador. Currently the species is known only from the montane and upper montane cloud forest of Morona-Santiago and Azuay.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119, 19120

**Miconia castellensis**
Melastomataceae
Ecuador
An endemic of the Ecuadorean High Andes, occurring in montane and upper montane cloud forest in Morona-Santiago, Azuay and Loja.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119, 19120

**Miconia castrensis**
Melastomataceae
Ecuador
A species of montane cloud forest, confined to Azuay Province in the Ecuadorean High Andes.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Miconia centrosperma**
Melastomataceae
Panama
Occurring in lowland forest or woodlands, the species is found in small localities along the road from El Llano to Carti-Tupile in Kunayala Indigenous Reserve. Other undetermined collections, suspected to be this species, come from the east, including some from Chagres National Park and Kunayala Indigenous Reserve. Within the confirmed range the forest continues to be destroyed by settlement, agriculture, farming and burning.
**Assessor:** Mitre, M.
**Refs:** 6626, 7980, 16772

**Miconia cuprea**
Melastomataceae
Ecuador
This endemic of Ecuador inhabits montane and upper montane cloud forest in the High Andean areas of Azuay Province.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Miconia demissifolia**
Melastomataceae
Peru
A tree of montane forest above 3000m, recorded in the departments of Cuzco and Pasco.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Miconia dissimilans**
Melastomataceae
Ecuador
An Ecuadorean endemic of the High Andes, inhabiting cloud forest between 2300 and 2800m in the provinces of Loja and Zamora-Chinchipe.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119, 19120

**Miconia didsonii**
Melastomataceae
Ecuador
A tree or shrub which is narrowly endemic to the southern High Andes of Ecuador.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119, 19120

**Miconia floccosa**
Melastomataceae
Peru
This species occurs in grassland areas between 2500 and 3500m in the departments of Junín and Pasco.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984

**Miconia glandulistyloa**
Melastomataceae
Ecuador
This Ecuadorean endemic inhabits cloud forest between 1600 and 3350m, in the High Andean areas of Morona-Santiago and Zamora-Chinchipe.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 2989, 6596, 19119, 19120

**Miconia glyptophylla**
Melastomataceae
Ecuador
An endemic tree of the Ecuadorean High Andes. The species can be found in cloud forest between 2550 and 2750m in the province of Azuay.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19119, 19120

**Miconia griffithii**
Melastomataceae
Peru
A species occurring in montane forest above 3500m in the departments of Huánuco and San Martín.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 1984
Miconia hexamera
Melastomataceae VU B1+2c
Ecuador
An endemic tree of the Ecuadorean High Andes, inhabiting cloud forest between 2550m and 3350m in Morona-Santiago, Cañar, Azuay and Zamora-Chinchipe. 
Assessor: World Conservation Monitoring Centre 
Refs: 19119, 19120

Miconia huigensis
Melastomataceae VU B1+2c
Ecuador
Endemic to Ecuador this species inhabits cloud forest between 1500m and 3400m. Currently it is known only from the High Andean areas of Bolivar, Chimborazo and Azuay. 
Assessor: World Conservation Monitoring Centre 
Refs: 2989, 6596, 19119, 19120

Miconia lachnoclada
Melastomataceae VU B1+2c
Peru
Known only from the department of Ayacucho, the species occurs in forest on rocky slopes above 3500m. 
Assessor: World Conservation Monitoring Centre 
Refs: 1984

Miconia mediocris
Melastomataceae VU B1+2c
Ecuador
An endemic of the Ecuadorean High Andes, inhabiting cloud forest between 1000 and 3350m in Pichincha and Azuay Provinces. 
Assessor: World Conservation Monitoring Centre 
Refs: 2989, 6596, 19119, 19120

Miconia monzioniensis ssp. cuzcoensis
Melastomataceae VU B1+2c
Peru
This subspecies occurs in forest roughly between 2500 and 3000m in the departments of Cuzco and Pasco. 
Assessor: World Conservation Monitoring Centre 
Refs: 1984

Miconia namandensis
Melastomataceae VU B1+2c
Ecuador
An endemic tree of the Ecuadorean High Andes, inhabiting cloud forest between 1500 and 3200m in Loja and Zamora-Chinchipe Provinces. 
Assessor: World Conservation Monitoring Centre 
Refs: 2989, 6596, 19119, 19120

Miconia nubicola
Melastomataceae EN B1+2c
Jamaica
A small tree or shrub of mossy montane woodland. It is recorded only from St Thomas Parish between 1830 and 2000m. 
Assessor: Kelly, D.L. 
Refs: 401, 5563, 7980, 19085

Miconia pausana
Melastomataceae VU B1+2c
Ecuador
A small tree, 5–6m tall, endemic to the High Andes of

Ecuador, where it is confined to cloud forest at 2400m in Azuay Province. 
Assessor: World Conservation Monitoring Centre 
Refs: 19119, 19120

Miconia penningtonii
Melastomataceae VU B1+2c
Ecuador
An endemic tree of the Ecuadorean High Andes, inhabiting cloud forest between 2800 and 3500m in Napo and Pichincha Provinces. 
Assessor: World Conservation Monitoring Centre 
Refs: 19119, 19120

Miconia perelegans
Melastomataceae VU B1+2c
Cuba
An uncommon endemic shrub or small tree, restricted to savanna in northern Isla de Pinos. Most of the original habitat in Pinus tropicalis forest has been converted to pastures. 
Assessor: Areces-Mallea, A.E. 
Refs: 11403, 18485, 19149

Miconia poecilantha
Melastomataceae EN B1+2c
Colombia
An endemic to Cundinamarca. 
Assessor: Calderon, E. 
Refs: 19069

Miconia poortmannii
Melastomataceae VU B1+2c
Ecuador
Endemic to Ecuador, this species is found in areas of cloud forest between 1000 and 2400m in the High Andes of El Oro Province. 
Assessor: World Conservation Monitoring Centre 
Refs: 2989, 6596, 19119, 19120

Miconia pseudorigida
Melastomataceae EN B1+2c
Jamaica
A very uncommon small tree or shrub of mossy woodlands on limestone, recorded only from Portland Parish between 450 and 760m. 
Assessor: Kelly, D.L. 
Refs: 5653, 19085

Miconia quadrangularis var. glandulosa
Melastomataceae EN B1+2c
Jamaica
The species is endemic to Jamaica. This variety is confined to Portland Parish, where it occurs in mossy woodland on limestone between 450 and 600m. 
Assessor: World Conservation Monitoring Centre 
Refs: 401, 5653, 7980

Miconia rimbachii
Melastomataceae VU B1+2c
Ecuador
Currently known to occur only in the High Andean areas of Bolivar Province, Ecuador. The habitat of this species is cloud forest between 2400 and 2600m. 
Assessor: World Conservation Monitoring Centre 
Refs: 2989, 6596, 19119, 19120

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**Miconia santaritensis**
Melastomataceae  VU A2c
Panama

Confined to the central region of Panama, extending a little to the east, the species occurs in lowland semi-deciduous rainforest. It appears to be fairly common in Santa Rita, Colón, becoming rarer in other localities. Parts of the range come under heavy pressure from increasing settlement of the area and related activities.

*Assessor:* Mitré, M.
*Refs:* 6626, 7980, 16772

**Miconia setulosa**
Melastomataceae  VU B1+2c
Peru

Apparently restricted to the departments of Cuzco and Puno, the species occurs in forest between roughly 2500 and 4000m.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 1984

**Miconia silicicola**
Melastomataceae  LR/nt
Guyana, Venezuela

Confined to south Venezuela and south Guyana, this species is found in scrub forest and on the summit of sandstone mountains in the vicinity of Roraima. The area is protected but under some pressure from tourism.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 9867

**Miconia sodiroi**
Melastomataceae  VU B1+2c
Ecuador

An endemic of Ecuador's High Andean region, at present known only to occur in Pichincha Province. The habitat of this species is cloud forest between 1800 and 2600m.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 2989, 6596, 19119, 19120

**Miconia superba**
Melastomataceae  LR/nt
Guyana, Venezuela

A montane species found in rainforest on the slopes of Mount Roraima on the border of Venezuela and Guyana. The area is protected but under some pressure from tourism.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 9867

**Miconia thaminantha ssp. thaminantha**
Melastomataceae  VU B1+2c
Peru

A subspecies of cloud forest to 2500m, known only from the department of Cuzco.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 1984

**Miconia villonacensis**
Melastomataceae  VU B1+2c
Ecuador

An endemic to Loja Province in the Ecuadorean High Andes, inhabiting cloud forest between 2600 and 2950m.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 2989, 6596, 19119, 19120

**Microberlinia bisulcata**
Leguminosae  CR A1c
Cameroon, Nigeria

A valuable timber species endemic to remaining areas of coastal evergreen forest in Cameroon, apparently extending to the Oban Hills in south-east Nigeria. Large-scale habitat decline and exploitation have caused population declines. Populations are protected in Korup National Park, Cameroon and Cross River National Park, Nigeria. The species has ectomycorrhizal properties.

*Assessor:* African Regional Workshop
*Refs:* 2773, 4977, 5595, 6718, 13013

**Microberlinia brazzavillensis**
Leguminosae  VU A1c
Cameroon, Congo, Gabon

A speciality timber tree, restricted to areas of coastal forest in Gabon, and neighbouring Congo. Populations in many places are small and scattered, with less than one individual per km². Logging is currently not heavy and populations appear to be stable in areas of Gabon. The Cameroon occurrence is doubtful.

*Assessor:* World Conservation Monitoring Centre
*Refs:* 1332, 7550, 15790, 17408, 19043

**Microbiota decussata**
Cupressaceae  DD
Former USSR (Khabarovsk, Primorski)

The present limited data suggest the species is endemic to an area near the Suchan River in Skihote Alin Province.

*Assessor:* SSC Conifer Specialist Group
*Refs:* 1956, 13041

**Micrococca scarrosa**
Euphorbiaceae  VU B1+2b
Kenya, Tanzania

Restricted to dry coastal forest in limestone areas, the species ranges from Pangani and Gongoni in south-east Kenya, through eastern Tanzania to Zanzibar.

*Assessor:* Lovett, J. & G.P. Clarke
*Refs:* 3356, 5654, 6396

**Microcos erythrocarpa**
Tiliaceae  VU D2
Malaysia (Peninsular Malaysia)

An uncommon tree in the lowland and hill forests of Fraser's Hill and the Genting Highlands. Both areas are threatened by the encroachment of settlements and tourism.

*Assessor:* Chung, R.C.K.
*Refs:* 19073

**Microcos globulifera**
Tiliaceae  VU B1+2c
Malaysia (Peninsular Malaysia)

Confined to lowland moist forest on the west coast from Perak to Johore, this tree is threatened by urban encroachment and habitat clearance.

*Assessor:* Chung, R.C.K.
*Refs:* 19073
**Microcos laurifolia**
Tiliaceae
Malaysia (Peninsular Malaysia)
A tree of lowland rainforest widespread within Peninsular Malaysia.
Assessor: Chung, R.C.K.
Refs: 19073

**Micropholis brochidodroma**
Sapotaceae
Peru
A newly described tree known only from Loreto, where it occurs in forest over white sand at altitudes between 150 and 200m.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Micropholis casiquiarensis**
Sapotaceae
Brazil (Amazonas, Pará), Venezuela
Only a few collections have been made of this species, which appears to be scattered sparsely from southern Venezuela to central Brazilian Amazonia in non-flooded forest over clay up to medium elevation.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Micropholis caudata**
Sapotaceae
Brazil (Amazonas)
A newly described species of non-flooded Amazonian forest, so far known only from the Manaus to Porto Velho road where the type was collected.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Micropholis compta**
Sapotaceae
Brazil (Bahia, Rio de Janeiro)
A tree known from a few scattered sites of coastal rainforest.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Micropholis crassipedicellata**
Sapotaceae
Brazil (Bahia, Espírito Santo, Rio de Janeiro, São Paulo)
A coastal forest species, ranging from Bahia southwards to São Paulo. The species habitat has suffered greatly from intensive logging. A population occurs in Linhares Forest Reserve.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Micropholis cylindrocarpa**
Sapotaceae
Brazil (Amazonas), Peru
Ranging from western Brazilian Amazonia to Loreto in Peru the species occurs in lowland forest, usually in areas which are not flooded.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Micropholis emarginata**
Sapotaceae
Brazil (Bahia)
A shrub or small tree, restricted in distribution to areas of *campo rupestre* on sandstone outcrops. Overcutting is a particular threat.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Micropholis garciniifolia**
Sapotaceae
Puerto Rico
Endemic to Puerto Rico, the species is a common upper storey component of old secondary and undisturbed submontane forest in the Sierra de Naguabo and Luquillo Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Micropholis gnaphaloclados**
Sapotaceae
Brazil (Bahia, Espírito Santo, Mato Grosso, Pernambuco)
A tree of submontane *cerrado, *caatinga and rocky outcrops. It ranges from Pernambuco to Mato Grosso but the populations appear to be highly fragmented.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Micropholis grandiflora**
Sapotaceae
Brazil (Amazonas)
A single collection of the species is known, originating from Neblina National Park on the Brazilian side.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

**Micropholis humboldtiana**
Sapotaceae
Brazil (Amazonas, Venezuela)
A species of *iguapó* forest and periodically flooded savanna from the lower Rio Negro in Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Micropholis macrophylla**
Sapotaceae
Peru
The type, which was collected in the first part of the century from an altitude of 1200m in Loreto, is the only record of this species.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Micropholis madeirensis**
Sapotaceae
Brazil (Amazonas), Peru
A lowland rainforest species distributed in central and western Amazonian Brazil and in Loreto in Peru.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

**Micropholis maguirei**
Sapotaceae
Brazil (Amazonas), Venezuela
Occurring in non-flooded lowland rainforest, the species is confined to a small area of southern Amazonas in Venezuela and neighbouring Brazil.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Species Summaries
**Micropholis polita**
Sapotaceae  
VU B1+2c  
Cuba  
A Cuban endemic confined to montane rainforests in Oriente Province. This species has suffered from overcutting.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980, 8816, 19149

**Micropholis resinifera**
Sapotaceae  
VU B1+2b  
Brazil (Amazonas)  
Possibly not distinct from *M. guianensis*, the species is known only from a few collections which have come from non-flooded highland and lowland forest. The wood is said to be good quality but in too small a quantity to be commercially valuable.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Micropholis retusa**
Sapotaceae  
EN B1+2b  
Brazil (Amazonas)  
A lowland rainforest tree, known only from the type collection from the north-west of the Brazilian Amazon.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Micropholis rugosa**
Sapotaceae  
LR/nt  
Jamaica  
Occurring in central and western parishes, the species has a sporadic distribution, mostly in open situations on limestone hills.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980, 8816

**Micropholis spectabilis**
Sapotaceae  
VU D2  
Venezuela  
So far this species has been recorded only from the site where it was first collected in submontane rainforest north-east of Luepa in Bolivar.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Micropholis splendens**
Sapotaceae  
LR/nt  
Brazil (Amazonas), Venezuela  
A species known only with certainty from southern Amazonas in Venezuela and adjacent Brazil. Tentative occurrences have been recorded from French Guiana and Amapá in Brazil.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Micropholis submarginalis**
Sapotaceae  
EN B1+2b  
Brazil (Amazonas)  
A newly described tree, so far known only from the type collection in non-flooded forest over sand in central Brazilian Amazonia.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Micropholis suborbicularis**
Sapotaceae  
LR/nt  
Venezuela  
In Bolivar and Amazonas, this small tree or shrub occurs in bush islands in the savanna or dwarf forest along watercourses between 1300 and 2000m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Micropholis venamensis**
Sapotaceae  
VU D2  
Venezuela  
This species is represented by two herbarium specimens, collected from wet montane mossy forest on or near Cerro Venamo in Bolivar.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Micropholis williamii**
Sapotaceae  
LR/ed  
Brazil (Amazonas, Pará)  
A species of scattered occurrence in non-flooded forest on clay soil. It is known to occur in the Ducke Forest Reserve.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 8816, 12109

**Microstrobos fitzgeraldii**
Podocarpaceae  
EN C2a  
Australia (New South Wales)  
A dwarf conifer, usually decumbent, confined to moist montane scrub in an area between Wentworth Falls and Katoomba Falls in the Blue Mountains. A count has been made of seven populations containing 455 individuals. Populations are declining because of a number of factors, including competition with invasive plants and poor recruitment prospects on the sheltered unstable cliffs and waterfall ledges where the species occurs. Urban development is also threatening the catchment area of the site. The genus contains only one other species, which is endemic to Tasmania.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 10808, 17200

**Microtropis argentea**
Celastraceae  
VU D2  
Malaysia (Sarawak)  
Found in *kerangas* forest on a plateau in Belaga, this small tree is known only from a single collection.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19017

**Microtropis borneensis**
Celastraceae  
VU D2  
Malaysia (Sarawak)  
A shrub or small tree locally abundant on Mount Kinabalu, Sabah, where it grows in *kerangas* and montane forest up to an altitude of 2400 m. In Sarawak, it is known only from a single collection found in the Lambir National Park.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19017

**Microtropis densiflora**
Celastraceae  
EN B1+2c  
India (Tamil Nadu)  
A small tree, known only from a single imprecisely recorded location in the Nilgiri Hills.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144
**Species Summaries**

**Microtropis fascicularis**
Celastraceae  
VU D2
Malaysia (Sarawak)
Known only from five collections, this uncommon small tree is found in mixed dipterocarp forest and *kerangas* forest, usually growing near streams, up to 500m.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Microtropis grandifolia var. grandifolia**
Celastraceae  
VU D2
Malaysia (Sarawak)
Endemic to Sarawak, this variety of lowland and hill forest is so far known from only two specimens, one collected from Bukit Panjo of Lundu and the other from Lubok Antu.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Microtropis grandifolia var. longipetiolatus**
Celastraceae  
VU D2
Malaysia (Sarawak)
A variety known from the type collection only.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Microtropis keningauensis**
Celastraceae  
VU D2
Malaysia (Sabah)
This uncommon shrub or small tree is known only from the lowland forest of Lanas, Keningau.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Microtropis rigida**
Celastraceae  
VU D2
Malaysia (Sarawak)
Endemic to Sarawak, this small tree of lowland and submontane forest is known only from Bako National Park, Gunung Santubong and Mulu National Park.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Microtropis sabahensis**
Celastraceae  
VU D2
Malaysia (Sabah)
Endemic to Sabah, this small tree is known only from the type specimen collected from Kinabatangan in lowland and seasonal swamp forest.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Microtropis sarawakensis**
Celastraceae  
VU D2
Malaysia (Sarawak)
Endemic to Sarawak, this small tree has been collected only once in lowland forest near streams.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Microtropis tenuis**
Celastraceae  
VU D2
Malaysia (Peninsular Malaysia)
Known from only a single collection, this small tree is confined to hill forest in Mount Tapis in the state of Pahang.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

**Mildbraedia carpinifolia**
Euphorbiaceae  
VU B1+2b
Kenya, Mozambique, Tanzania
A shrub or tree of dry coastal forest or open woodland, ranging from south-east Kenya to eastern Tanzania and Zanzibar Island and possibly Mozambique.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

**Milicia excelsa**
Moraceae  
LR/nt
Angola, Benin, Burundi, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea (Bioko), Ethiopia, Gabon, Ghana, Kenya, Malawi, Mozambique, Nigeria, Rwanda, São Tomé & Príncipe (São Tomé), Sierra Leone, Sudan, Tanzania, Togo, Uganda, Zimbabwe
Iroko, although common and widely distributed in different forest types throughout tropical Africa, suffers from heavy exploitation. East Africa was once a major source of the timber, which was used as a teak substitute until supplies became short. West Africa continues to export large quantities of it. Some populations suffer from gall attacks, especially in plantations, and its seed loses viability quickly. Trees are often left standing after land clearance and natural regeneration is good in open places.
Assessor: World Conservation Monitoring Centre
Refs: 2036, 2361, 4506, 6127, 6244, 6396, 6718, 7791, 9605, 15251, 16021, 17335, 17408, 19172

**Milicia regia**
Moraceae  
VU A1cd
Benin, Cameroon, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Senegal
Logging companies do not distinguish this species from *M. excelsa*. The rates of timber exploitation have a more serious impact on this species, with its narrower distribution within a region which has experienced large-scale forest destruction.
Assessor: African Regional Workshop
Refs: 2773, 12061, 15251

**Miliusa nilagirica**
Annonaceae  
VU B1+2c
India (Karnataka, Kerala, Tamil Nadu)
A poorly known species, which occurs in the understory of stunted evergreen forest between 900 and 1600m. Occurrences are sparsely scattered; three records have been made in the Agasthyamalai Hills and three from sites further north, including the Nilgiri Hills and the Karnataka and Kerala border.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Miliusa parviflora**
Annonaceae  
VU D2
Malaysia (Peninsular Malaysia)
A species known from four localities in the Langkawi Islands and Perlis State. It is restricted to forest on limestone hills. These areas are rapidly being developed and destroyed by urban expansion.
Assessor: Kochummen, K.M.
Refs: 19073

**Miliusa zeylanica**
Annonaceae  
VU A1c
Sri Lanka
Until recently this endemic tree had gone uncollected for
over a century. This species turned up in 13 forest sites during the extensive forest surveys conducted for the National Conservation Review.

Assessor: World Conservation Monitoring Centre
Refs: 15431, 16943, 18796, 19112

**Millettia aurea**

Leguminosae EN A1c
Madagascar
A deciduous woodland species that is restricted and uncommon. Its range extends 40,000 km² (*EOO*) but is highly fragmented as a result of agriculture and burning. Recent cotton plantations have had a strong impact and it is likely that at least 50% of the forest has been cleared or degraded in the last 100 years. This decline is continuing although this species is included within Anchafantsika Reserve.

Assessor: Du Puy, D. & H. Labat
Refs: 12353

**Millettia bussei**

Leguminosae VU B1+2b
Mozambique, Tanzania
This species is restricted to areas of dry coastal forest in Niassa Province, Mozambique, and south-east and east Tanzania.

Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

**Millettia capuronii**

Leguminosae VU D2
Madagascar
Known from only three localities, this coastal forest species is confined to eastern Madagascar. Its range is estimated to lie between 500 and 1000 km² (*AOO*), but it is uncommon and the habitat is almost entirely destroyed, with only small vestiges remaining.

Assessor: Du Puy, D. & H. Labat
Refs: 12353

**Millettia conraui**

Leguminosae VU A1c, B1+2c
Cameroon, Nigeria
A small forest tree, similar to *M. macrophylla*, with a range extending from south-east Nigeria into Cameroon. Unprotected forest has been heavily logged and cleared for agriculture.

Assessor: World Conservation Monitoring Centre
Refs: 11504

**Millettia decipiens**

Leguminosae VU D2
Malaysia (Peninsular Malaysia)
This lowland rainforest species is known from only two collections from Kuala Dipong, Perak. The area is under increasing conversion to agriculture.

Assessor: World Conservation Monitoring Centre
Refs: 17140, 19073

**Millettia elongistyla**

Leguminosae VU B1+2b
Tanzania
Two populations are known. One is restricted to Kimboza Forest Reserve, which covers 4 km² of moist semi-deciduous coastal forest within a densely populated area. The demand for land and wood is high but the forest is protected by two forest guards, employed in the Catchment Forest Project. The other is restricted to low elevations in the Udzungwa Mountains.

Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 5204

**Millettia eriocarpa**

Leguminosae VU B1+2b
Tanzania
A species of dry coastal forest endemic to south-east Tanzania.

Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5204, 10961

**Millettia galilifragrans**

Leguminosae VU B1+2c
Malaysia (Peninsular Malaysia)
A tree of lowland moist areas, confined to the Kluang Forest Reserve in the state of Johore. The principal threat to remaining populations is logging.

Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Millettia hitsikia**

Leguminosae EN B1+2abc
Madagascar
Recorded from only two sites, this eastern coastal forest species is confined to a forest remnant at Ambila-Lemaitsu which extends less than 500 km² (*AEO*) and suffers continual degradation.

Assessor: Du Puy, D. & H. Labat
Refs: 12353

**Millettia lacus-alberti**

Leguminosae VU B1+2c
Democratic Republic of Congo, Uganda
An endemic to the Albertine Rift, confined to upland forest margins along the Waki River in Uganda and Lake Albert in DR Congo.

Assessor: *MUIENR*
Refs: 1308, 9605, 10961, 16021

**Millettia laurentii**

Leguminosae EN A1cd
Cameroon, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon
A species of Central African semi-deciduous, sometimes swampy, forest. In much of its range it is threatened with overexploitation for its decorative timber.

Assessor: African Regional Workshop
Refs: 7142, 11449, 12509, 17408

**Millettia macrophylla**

Leguminosae VU A1c, B1+2c
Cameroon, Nigeria
A small forest tree which occurs in areas of remaining forest, ranging from south-east Nigeria to Cameroon. Unprotected forest has been heavily logged and cleared for agriculture.

Assessor: World Conservation Monitoring Centre
Refs: 11504

**Millettia micans**

Leguminosae VU B1+2b
Tanzania
A small tree restricted to remaining areas of dry coastal forest and open woodland in east and south-east Tanzania.

Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356
Milletia mossambicensis
Leguminosae DD
Mozambique
A poorly known species of Zanzibar-Inhambane woodland.
Assessor: Bandeira, S.
Refs: 5117, 7550

Milletia nataliae
Leguminosae EN B1+2abc
Madagascar
A deciduous woodland species known only from two localities restricted to the Ankaranana-Analamerana Massif of north Madagascar. It is uncommon, covering an estimated area of 500 km² (*AOO), within which the forests are declining. It is included within Ankaranana and Analamerana Reserves.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Milletia oblata ssp. intermedia
Leguminosae VU B1+2b
Tanzania
A montane taxon confined to moist forests on the West Usambara Mountains, Udzungwa Mountains and at Lupembe in the Kipengere range.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 7550

Milletia oblata ssp. oblata
Leguminosae VU B1+2b
Tanzania
A subspecies confined to moist evergreen forest at submontane altitudes in the East and West Usambara Mountains. A doubtful record also originates from the Udzungwa Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 7550

Milletia oblata ssp. stolzii
Leguminosae VU B1+2b
Tanzania
A tree of moist montane forest at altitudes of between 1400 and 1500m on Mount Rungwe and along Mkenja River. It is also apparently cultivated in Zambia.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 5204

Milletia oblata ssp. teitensis
Leguminosae VU B1+2bcd, D2
Kenya
This subspecies is known only from the Taita Hills, occurring in remnants of moist evergreen forest. The tree has many local uses and illegal exploitation of the wood continues. The habitat is also reduced through encroaching agriculture, settlement, the planting of commercial species and road building. Seed and living stocks are maintained under the Plant Conservation Programme in Kenya.
Assessor: World Conservation Monitoring Centre
Refs: 1308, 6396, 17859

Milletia orientalis
Leguminosae EN B1+2abc
Madagascar
A coastal forest species known only from two restricted sites: Nosy Mangabe & Antongil and Taolanaro. The southern population extends less than 500 km² (*AOO) and is threatened by mining.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Milletia pterocarpa
Leguminosae VU D2
Malaysia (Peninsular Malaysia)
A tree of primary lowland forest, confined to the state of Perak, from where it has been collected three times.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Milletia saulexii
Leguminosae VU B1+2b
Tanzania
A species that occurs in the lowland forests in the East Usambara and south Nguru Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 5204, 10961

Milletia schliebenii
Leguminosae VU B1+2b
Tanzania
A species endemic to south-east Tanzania, where it is confined to remaining areas of dry coastal forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 7550

Milletia sensei
Leguminosae VU B1+2b
Tanzania
A moist forest species of low elevation, endemic to east and south-east Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356

Milletia sericantha
Leguminosae VU B1+2b, D2
Tanzania
Two populations are known, both in moist lowland forest. One occurs at the foot of the Uluguru Mountains and the other at Turiani.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 5204, 10961

Milletia taolanaroensis
Leguminosae EN B1+2abc
Madagascar
A transitional forest species between dry and humid vegetation, it is confined to an area of less than 500 km² (*AOO) in south-east Madagascar. The area is under threat from development, exploitation and mining, and the remaining forest is already highly fragmented.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Milletia unifoliata
Leguminosae VU B1+2c
Malaysia (Peninsular Malaysia)
A lowland rainforest species, confined to the state of Perak, where it is principally threatened by encroaching settlements, agriculture and logging activities.
Assessor: Chua, L.S.L.
Refs: 8464, 19073
Milletia usaramensis var. parvifolia
Leguminosae VU B1+2b
Tanzania
A shrub or tree from two locations in south-east Tanzania, one in Kilwa and the other near Lindi. It is restricted to areas of dry coastal forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 5204

Milletia warneckeii
Leguminosae VU A1c
Ghana, Guinea, Liberia, Sierra Leone, Togo
More information is needed on this species to confirm the status. It is not common and occurs in dry forests only in the Upper Guinea region. This type of vegetation has suffered extensively from the effects of human population growth, agricultural expansion and fire.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Mimesis arboreus
Proteaceae VU D1+2
South Africa (Western Cape)
The species is confined to the Kogelberg range, where it occurs on the upper south slopes in seeps growing in wet mountain fynbos. It is usually encountered as single plants, although small subpopulations, never exceeding 100 individuals, are also known. There is a total of approximately 500 mature plants within an area of 10 km² (*AOO). Populations may have been more extensive in the past and declined because of frequent fires, to which the species is susceptible as it is a reseeder and takes eight years to reach maturity. All the present localities are now in a strictly protected conservation area, with a clear management policy which controls the occurrence of fire and presence of alien invasives. However, this deliberate exclusion of fire for many years may not have had a totally beneficial effect because periodic fires are needed to ensure recruitment.
Refs: 689, 19218

Mimosa caesalpiniaefolia
Leguminosae VU B1+2c
Brazil (Bahia, Ceará, Maranhão)
A xerophytic species found growing mainly in deep alluvial soils. It is suffering a slow decline through its use as a timber, fuelwood and charcoal and through habitat loss and degradation.
Assessor: World Conservation Monitoring Centre
Refs: 4506

Mimosa nothacacia
Leguminosae VU D2
Peru
Known only from the type collection, the species occurs in shrubland in the department of Piura.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Mimosa verrucosa
Leguminosae LR/nt
Brazil (Bahia, Ceará, Paraíba, Pernambuco, Rio Grande do Norte)
Common on hillsides, this shrubby tree is found on caatinga in north-east Brazil. It is slowly declining as a result of exploitation for timber and fuel.
Assessor: World Conservation Monitoring Centre
Refs: 4506, 7980, 9902

Mimusops acutifolia
Sapotaceae VU B1+2b
Tanzania
This small tree or shrub is mainly known from a dry forest habitat around Lake Lutamba. It may also be found in the East Usambara Mountains. The area around the lake has been completely cleared, with the exception of a 10km² patch of forest protected as Litipo Forest Reserve.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5204

Mimusops angel
Sapotaceae LR/nt
Somalia
A rare evergreen tree of dry and open riverine forest, restricted to the north-eastern tip of Somalia. Overexploitation and degradation of the forest threaten the species.
Assessor: Thulin, M.
Refs: 2361, 8697, 18665

Mimusops penduliflora
Sapotaceae EN B1+2d
Tanzania
The type specimen is the only record of this species. It was collected from the bank of the Mbakara River in the southern Uluguru Mountains. It could represent a form of a more widespread species.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Mimusops riparia
Sapotaceae VU B1+2b
Kenya, Tanzania
Two localities in Kenya are known, where the species occurs in forest along the Luma and Tana Rivers. The range extends to eastern Tanzania, where populations are restricted to remaining areas of moist forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 10961

Mimusops schellerianum
Sapotaceae VU D2
Seychelles
A once important timber tree now restricted to scattered stunted individuals in exposed rocky areas on the islands of Mahé, Praslin, Silhouette, Ile Longue and Felicite. The population on Curieuse is now extinct because of a fire. Seed predation by rats hampers regeneration in localised areas. The species is a good candidate for reforestation projects.
Assessor: World Conservation Monitoring Centre
Refs: 9859, 17229, 19023, 19062

Minquartia guianensis
Olacaceae LR/nt
Bolivia, Brazil, Colombia, Costa Rica, Ecuador, French Guiana, Guyana, Nicaragua, Panama, Peru, Suriname, Venezuela
A monotypic species, widespread in lowland moist forest types from Nicaragua to Bolivia and Peru. It is locally common in the Guianas and other countries but it has become rarer in some areas where the wood is
intensively harvested for local use, notably in Brazil and Colombia. Seed-producing trees are sometimes low in numbers but regeneration does not appear to be inadequate. The timber is scarce in international trade.

**Assessor:** Americas Regional Workshop  
**Refs:** 730, 6317, 9867, 14717, 15037, 15478, 19069, 19158, 19179

**Mitranthes clarendonensis**  
Myrtaceae VU B1+2c  
Jamaica  
Occurring in areas of wooded rocky limestone at about 760m, the species appears to be scarce and confined to Clarendon Parish.  
**Assessor:** Kelly, D.L.  
**Refs:** 401, 5653, 7980, 19085

**Mitranthes macrophylla**  
Myrtaceae CR B1+2c  
Jamaica  
A small tree or shrub, which appears to have been found in only two locations in Trelawny. One is near a road extension west of Troy and the other is in woodland on a rocky limestone hilltop.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980

**Mitranthes nivea**  
Myrtaceae EN B1+2c  
Jamaica  
A small tree or shrub found only in woodland areas on limestone hilltops in St Ann Parish.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980

**Mitraphora caudata**  
Annonaceae VU B1+2c  
Philippines  
This tree is found at low and medium altitudes in forest in Palawan. The main island is a biosphere reserve.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4986

**Mitraphora fragrans**  
Annonaceae VU B1+2c  
Philippines  
This tree is endemic to Palawan, found in forest at low altitudes. The main island is a biosphere reserve.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4986

**Mitraphora grandiflora**  
Annonaceae VU B1+2c  
India (Karnataka, Kerala)  
A poorly collected species, known from a few scattered localities of lowland evergreen forest. In Kerala records have been made to the north of the Agastya Malai Hills, near Trissur, and in the Vavumala Malai Hills. A single collection also originates from central Karnataka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Mitraphora lanata**  
Annonaceae VU A1cd  
Philippines  
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2072, 4919, 5651

**Milicia fragrans**  
Annonaceae VU B1+2b  
Kenya, Tanzania  
A species from a monotypic genus, commercially important for the fragrance of its flowers. The historical interest and trade in the species may have caused its range to be artificially expanded. In Kenya it occurs in evergreen forest in two separate localities along the coast. Populations also occur in north-east Tanzania and Zanzibar and Pemba Islands.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 2418, 3356, 6396, 8814

**Molinadendron hondurense**  
Hamamelidaceae CR C2b  
Honduras  
A tree of high-altitude mixed humid forest.  
**Assessor:** Nelson, C.  
**Refs:** 10147, 13995

**Mollia glabrescens**  
Tiliaceae VU D2  
Guyana  
Described in 1842, this species has not been recorded since the type collection from the Kwitaro River.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7951

**Mollinedia argyrogyyna**  
Monimiaceae LR/nt  
Brazil  
Although widely distributed in Atlantic forest in the south and south-east of Brazil, the species occurs sparsely and populations are in decline because of extensive habitat loss and degradation.  
**Assessor:** Peixoto, A.L.  
**Refs:** 19102

**Mollinedia butleriana**  
Monimiaceae CR C2b  
Honduras  
A rainforest tree of the Atlantic lowlands.  
**Assessor:** Nelson, C.  
**Refs:** 13995

**Mollinedia engleriana**  
Monimiaceae VU B1+2c  
Brazil (Rio de Janeiro, São Paulo)  
Occurring in areas of montane evergreen rainforest, the species is known from few localities and populations are believed to be small.  
**Assessor:** Peixoto, A.L.  
**Refs:** 19098, 19102

**Mollinedia gigliana**  
Monimiaceae CR B1+2c  
Brazil (Rio de Janeiro)  
An understorey species which is confined to Atlantic forest in Serra de Macaé in Nova Friburgo. It is believed to be naturally rare and only a few collections have been made, dating from the 1800s and more recently between 1987 and 1988. The locality is contained within a
Mollinedia glabra
Monimiaceae
Brazil (Espírito Santo, Rio de Janeiro)
A tree of potential horticultural interest. It occurs sparsely in remnant areas of *restinga* woodland. The habitat has been widely destroyed by urban expansion. The species is also suspected to suffer from habitat fragmentation because of its dioecious nature. It occurs on the official list of threatened Brazilian plants compiled by *IBAMA.*
Assessor: Varty, N.
Refs: 8815, 16123, 19102

Mollinedia lamprophylla
Monimiaceae
Brazil (Rio de Janeiro)
Formerly known along streamsides, this understory species appears to have become extremely scarce. Extensive searches have located only two female specimens restricted to forest in Corcovado. One specimen has, however, set seed, suggesting there is at least a pollen-producing male individual in the vicinity. The species is included in the official list of threatened Brazilian plants compiled by *IBAMA.*
Assessor: Varty, N.
Refs: 8815, 16123

Mollinedia longicuspidata
Monimiaceae
Brazil (Rio de Janeiro)
This rare understory species is confined to streamsides in areas of humid forest in Alto Macaé, in Nova Friburgo. The locality is now protected and the species is included in the official list of threatened Brazilian plants compiled by *IBAMA.*
Assessor: Varty, N.
Refs: 8815, 16123

Mollinedia marquetiana
Monimiaceae
Brazil (Bahia, Espírito Santo)
An Atlantic forest species which is restricted to localities in the Linhais Reserve in Espírito Santo and to forest on Massungu. The subpopulations are reported to be small.
Assessor: Peixoto, A.L.
Refs: 19102

Mollinedia ruoe
Monimiaceae
Honduras, Nicaragua
Assessor: Nelson, C.
Refs: 13995

Mollinedia stenophylla
Monimiaceae
Brazil (Rio de Janeiro)
Known from a restricted area of Atlantic forest in Nova Friburgo, this species has yet to be collected or recorded this century. The forest continues to be rapidly destroyed and recent surveys have failed to locate living populations. The species is on the official list of threatened Brazilian plants compiled by *IBAMA.*
Assessor: Varty, N.
Refs: 8815, 16123
Monopetalanthus compactus
Leguminosae
Côte d’Ivoire, Liberia, Sierra Leone
The largest part of the species' range lies in Liberia. It extends from the south-west tip of Côte d'Ivoire towards the Nimba region of Liberia extending into Sierra Leone.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 4979

Monopetalanthus durandii
Leguminosae
Galibon
Populations are known from Lopé Forest Reserve and the relatively isolated Cristal Mountains, possibly extending into the remnant coastal forest in Cameroon. The habitat is degraded where logging has taken place. A large part of Gabon's forest is now under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 1332, 7550, 14958, 15790

Monopetalanthus heitzii
Leguminosae
Cameroon
This is the most endangered member of the genus. Recorded from small localities at Muyuka, Eseka, Kribi, Maleke and Lohodorf in Cameroon, the species may already be extinct from most of these sites. One location is converted to agricultural land. Another remains forested but attempts to find the species have failed and the third location appears now have been planted with bananas. It is closely related to M. heitzii but appears to grow to larger proportions and at a relatively rapid rate. There is considerable interest in its potential as a plantation tree.
Assessor: World Conservation Monitoring Centre
Refs: 1332, 5595, 12597

Monopetalanthus heitzii
Leguminosae
Cameroon
A species confined to dry forest along the coast of Gabon following the Ogooué valley inland to Lopé Forest Reserve. Suggestions that it occurs in Cameroon have not been consolidated. It ranges over an area covering at least 70,000 km² in extent. The species is being felled for its timber, but the threat is not believed to be substantial at present. The long-term survival of the tree and its habitat is uncertain given the extent to which logging concessions have been made.
Assessor: World Conservation Monitoring Centre
Refs: 1332, 7550

Monotes lutambensis
Dipterocarpaceae
Tanzania
An African dipterocarp. It is cited as occurring at Lake Lutamba, where the only remaining forest is contained within Litipo Forest Reserve (10km²). Logging, clearing of the forest for agriculture and wood collection have taken place in the past and continue to put pressure on the reserve.
Assessor: Lovett, J. & G.P. Clarke
Refs: 10961, 16796

Monte Avisciera cauliflora
Guttiferae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Moratia cerifera
Palmae
New Caledonia
Restricted to north-east New Caledonia, the species occurs in wet forest on schistose soils between 500 and 800m.
Assessor: Jaffré, T. et al.
Refs: 10351, 19118

Morinda asterocephala
VU B1+2b
Malawi, Tanzania
From Nchisi forest in Malawi to eastern Tanzania, the species is restricted to areas of moist forest at medium elevations.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Morinda trimera
Rubaceae
USA (Hawaii)
Not an uncommon species. It is scattered, sometimes dominating lowland rainforest in the Wai'anae Mountains and Koolau Mountains on Oahu, and also Lanai and Maui.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Moringa arborea
Moringaceae
VU D2
Kenya
This species has been found only once in a site south-east of Malka Mari.
Assessor: World Conservation Monitoring Centre
Refs: 1308, 6396, 9198

Mouriea tonkinensis
Rubaceae
VU D2
Viet Nam
Apparently endemic to Viet Nam, where the species is restricted to a single locality in Ba Vi, Ha Tay Province.
Assessor: World Conservation Monitoring Centre
Refs: 848, 11530

Mouriea completens
Meliaceae
EN B1+2c
Colombia, Panama
Assessor: Caldecott, E.
Refs: 7980, 19069

Mouriea marginata var. rostrata
Meliaceae
EN B1+2c
Cuba
This variety occurs very occasionally in dry serpentine woodland, mostly on deeper soils near ravines in Holguín, Pinar del Río and Habana. Its habitat has been severely degraded in most places.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 19149
Mouriri panamensis  
Melastomataceae  
VU C1  
Colombia, Panama  
Originally known only from Cerro Jefe, to the north-east of Panamá city, the species has now been reported from Kunayala Indigenous Reserve and from Darién Province in Panama, and also Valle del Cauca and the Chocó in Colombia. It is sparsely scattered in lowland, often inundated, forest, mostly within protected areas. Unprotected forest is exposed to logging and development.  
Assessor: Mitré, M.  
Refs: 7588, 7980, 10218, 16772

Mozartia emarginata  
Myrtaceae  
EN B1+2c  
Cuba  
A rare shrub or small tree restricted to parts of the serpentine range, Sierra de Moas, in Holguín Province. Disturbance has been heavy in places.  
Assessor: Areces-Malla, A.E.  
Refs: 11403, 18485, 19149

Mozartia maestrensis  
Myrtaceae  
EN B1+2c  
Cuba  
A tree known only from montane rainforest on Sierra Maestra in eastern Cuba. It occurs mainly along creeks and watercourses.  
Assessor: Areces-Malla, A.E.  
Refs: 9522, 16327, 19149

Mozartia mancalensis  
Myrtaceae  
EN B1+2c  
Cuba  
Confined to the montane rainforests of Sierra Maestra range in eastern Cuba, this tree thrives on shallower soils and rocky outcrops.  
Assessor: Areces-Malla, A.E.  
Refs: 16327, 18485, 19149

Multidentia castaneae  
Rubiacaeae  
VU B1+2b  
Tanzania  
A shrub or small tree of dry coastal forest, endemic to eastern Tanzania.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

Multidentia sclerocarpa  
Rubiacaeae  
VU B1+2b, D2  
Kenya, Tanzania  
Two localities are known where the species occurs in moist forest. One is in Kenya in Mkomani North and the other is in the East Usambara Mountains.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 1308, 3356, 8814

Munroidendron racemosum  
Araliaceae  
CR C2a  
USA (Hawaii)  
Endemic to Kauai, the species, once widely scattered, is now confined to 15 populations mostly found on steep forested cliffs or slopes at low elevation. It is restricted to the Napali coast, Haupu range and Nounou Mountain, each population amounting to only one or two individuals, with the biggest one containing fewer than 50 individuals. Invasive plants and animals, including a longhorned beetle, rats and goats, pose serious threats to the survival of the species. There has been some success with propagation and plants have been reintroduced at Kauhao Ridge. The species is protected by the US Endangered Species Act.  
Assessor: World Conservation Monitoring Centre  
Refs: 19038

Mussaenda microdonta var. microdonta  
Rubiacaeae  
VU B1+2b  
Tanzania  
A small tree known from moist evergreen forest at medium elevations at Shagayu in the West Usambara Mountains and Binduki in the Uluguru Mountains.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

Mussaenda monticola var. glabrescens  
Rubiacaeae  
VU B1+2b  
Kenya, Tanzania  
The nominate variant of an East African endemic. Populations occur in moist forest in the Shimba Hills, Gongoni and Pangani rocks in Kenya. They extend into remaining forest patches in eastern Tanzania.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 6396, 8814

Myodocarpus angustralatus  
Araliaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

Myoporum rimatarenae  
Myoporaceae  
DD  
French Polynesia (Tubuai Is.)  
A species which has been recorded only from Rimatara Island in the Tubuai Group.  
Assessor: Florence, J.  
Refs: 14513

Myoporum stokesii  
Myoporaceae  
CR B1+2c  
French Polynesia (Tubuai Is.)  
The species has been recorded from Matotea and Maunganui on the island of Raivavae in the Tubuai Group.  
Assessor: Florence, J.  
Refs: 14513

Myrcceuogenia bracteosa  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O'Brien, J.  
Refs: 7980, 19097
Species Summaries

Myrceugenia brevipedicellata  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O’Brien, J.  
Refs: 7980, 19097

Myrceugenia campesiris  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O’Brien, J.  
Refs: 19097

Myrceugenia fernandeziana  
Myrtaceae  
VU D2  
Chile (Juan Fernández Is)  
A dominant species of lowland dry forest and lower montane forest on Masatierra Island. The extent of the forest has declined through the effects of grazing by feral animals, spread of introduced weeds and soil erosion. Trees were also cut in large numbers for lumber in the past. Preliminary data indicate the species is confined to less than 100km². More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.  
Assessor: World Conservation Monitoring Centre  
Refs: 3241, 5651, 7980, 14140

Myrceugenia franciscensis  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O’Brien, J.  
Refs: 7980, 19097

Myrceugenia kleinii  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O’Brien, J.  
Refs: 7980, 19097

Myrceugenia miersiana  
Myrtaceae  
LR/nt  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Barroso, G.M.  
Refs: 19097

Myrceugenia myrcioides  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Barroso, G.M.  
Refs: 19097

Myrceugenia piloiantha  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O’Brien, J.  
Refs: 7980, 19097

Myrceugenia rufescens  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O’Brien, J.  
Refs: 7980, 19097

Myrceugenia schulzei  
Myrtaceae  
VU D2  
Chile (Juan Fernández Is)  
A dominant species of lowland dry forest on Masafuera Island. The extent of the forest has declined through the effects of grazing by feral animals, spread of introduced weeds and soil erosion. Preliminary data indicate the species is confined to less than 100km². More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.  
Assessor: World Conservation Monitoring Centre  
Refs: 3241, 5651, 14140

Myrceugenia scutellata  
Myrtaceae  
VU B1+2acd  
Brazil  
The main centre of distribution of the genus is in Chile and Argentina. The Brazilian species are localised, 1000km further north, in the south-eastern states, where their occurrence is scarce.  
Assessor: Pires O’Brien, J.  
Refs: 7980, 19097

Myria albobrunnea  
Myrtaceae  
VU D2  
Peru  
Known only from the type collection, the species occurs in lowland rainforest in the department of Loreto.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

Myria almasensis  
Myrtaceae  
VU D2  
Brazil (Bahia)  
Endemic to Bahia in Brazil, the species is presently known from just two locations in *campo rupestre* or in
sandy grassland. Evidence suggests that the species is unusual for its family in possibly being dioecious.

Assessor: World Conservation Monitoring Centre
Refs: 849

Myrcia calcicola
Myrtaceae VU B1+2c
Jamaica
Reported to occur in abundance, the species is confined to areas of moist forest on limestone in Portland between 450 and 600m. Many areas have experienced logging and conversion to commercial plantations.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 6057, 7980

Myrcia crassimarginata
Myrtaceae VU D2
Peru
Apparently the species is known only from the type collection, which was taken from lowland Amazon forest near Yurimaguas in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984, 15371

Myrcia fosteri
Myrtaceae VU C2a
Panama
Ranging from the Canal area towards Darién National Park in the east, the species is very common in places, such as Barro Colorado Island and the forest around the Canal. There are almost no populations outside protected areas or in disturbed forest.
Assessor: Mitré, M.
Refs: 7980, 16772

Myrcia grandiflora
Myrtaceae VU B1+2acd
Brazil
A rare species of Brazilian Atlantic forest.
Assessor: Pires O'Brien, J.
Refs: 19097, 19098

Myrcia lineata
Myrtaceae VU B1+2acd
Brazil
A rare species of Brazilian Atlantic forest.
Assessor: Pires O'Brien, J.
Refs: 19098

Myrtia pagani
Myrtaceae CR D1
Puerto Rico
Only two populations, accounting for 10 individuals in total, are known from areas of moist limestone forest in the west. No evidence of flowering or fruiting is apparent. Both sites are on private land. Attempts at cultivation have been unsuccessful.
Assessor: World Conservation Monitoring Centre
Refs: 3786, 7980, 17124, 17540

Myrcia pentagona
Myrtaceae VU D2
Peru
Known only from the type collection, the species occurs in lowland rainforest species in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Myrcia skeldingii
Myrtaceae EX
Jamaica
A population was once located in streamside thickets along the Mason River on the Clarendon–St Ann border. No individuals have been seen or recorded since 1972 and the species is presently presumed extinct.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Myrcia splendid var. chrysocoma
Myrtaceae VU D2
Peru
This variety is known only from the type collection, which originates from lowland rainforest in the department of San Martin.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Myrcianthes callicoma
Myrtaceae VU B1+2c
Argentina (Tucumán), Bolivia
Originally thought to be endemic to Tucumán in Argentina, the species has recently been discovered in a small area in Bolivia.
Assessor: World Conservation Monitoring Centre
Refs: 5112, 19180

Myrcianthes oreophila
Myrtaceae VU B1+2c
Peru
A cloud forest species of the Peruvian Andes, recorded from disturbed areas in the departments of Apurímac and Cuzco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Myrcianthes pungens
Myrtaceae EN B1+2c
Brazil
Assessor: Barroso, G.M.
Refs: 19097, 19098

Myrciardia cuspidata
Myrtaceae VU B1+2acd
Brazil, Paraguay
A rare species of Brazilian Atlantic forest.
Assessor: Pires O'Brien, J.
Refs: 7980, 19097

Myrciardia pliniodes
Myrtaceae VU B1+2acd
Brazil
A rare species of Brazilian Atlantic forest.
Assessor: Pires O'Brien, J.
Refs: 19097, 19098

Myrciarria silveirana
Myrtaceae VU B1+2acd
Brazil
A rare species of Brazilian Atlantic forest.
Assessor: Pires O'Brien, J.
Refs: 19097

Myrica rivas-martinezii
Myrtaceae CR C2a
Spain (Canary Is.)
A dioecious species which is found scattered mainly as isolated individuals in cloud forest on the islands of La
Palma, Gomera and Hierro. The total population size is small and regeneration is poor. There is also evidence of hybridisation occurring with *M. faya*. The species is listed in government legislation of 1991.

**Assessor:** Bahares, A. et al.
**Refs:** 451, 16500, 19022

**Myristica agusanensis** ssp. **squamulosa**
- Myristicaceae
- VU D2
- Philippines
- This subspecies is newly described, based on three herbarium specimens. It is found in lower montane forest on the islands of Luzon and Sibuyan.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18022

**Myristica alba**
- Myristicaceae
- VU D2
- Indonesia (Moluccas)
- A small tree, found on limestone from four collections in Bacan, Obi and Buru Islands.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 8013

**Myristica ampliata**
- Myristicaceae
- VU D2
- Australia (Queensland)
- Known only from four collections, this small tree is found locally in the lowland rainforest of the Mission Beach area of north-east Queensland.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 10378

**Myristica andamanica**
- Myristicaceae
- VU B1+2c
- India (Andaman and Nicobar Is.- Andaman Is., Andaman and Nicobar Is. - Nicobar Is.)
- The only species in the genus to be found in the Andaman and Nicobar Islands. A handsome tree of evergreen hill forest, rainforest or mixed forest, it has been collected a total of eight times, three times in the 19th century.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18022

**Myristica arfakensis**
- Myristicaceae
- VU D2
- Indonesia (Irian Jaya)
- A small montane forest tree known only from two collections from the Arfak Mountains in north-east Vogelkop Peninsula.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1493

**Myristica atresens**
- Myristicaceae
- VU D2
- Papua New Guinea
- The type specimen is the only known collection of the tree. It was gathered from lowland forest near the border of Papua New Guinea in south-eastern Irian Jaya.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1493

**Myristica basilanica**
- Myristicaceae
- VU D2
- Philippines
- A newly described tree known only from the type collected from Basilan Island in 1912.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 18022

**Myristica beddomei** ssp. **sphaerocarpa**
- Myristicaceae
- EN B1+2c
- India (Kerala, Tamil Nadu)
- A small tree restricted to the eastern slopes of the Western Ghats in the Tinevelly District. This subspecies has been collected only twice, in areas of wet evergreen forest.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 10148, 18022

**Myristica beddomei** ssp. **ustulata**
- Myristicaceae
- EN B1+2c
- India (Kerala, Tamil Nadu)
- This tree is found in montane wet and relatively dry evergreen forest in Kerala and East Madras. Only five collections are known.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 10148, 18022

**Myristica bifurcata** ssp. **bifurcata**
- Myristicaceae
- LR/nt
- Indonesia (Irian Jaya, Moluccas)
- This subspecies is locally common in forest on Morotai Island of the Moluccas and is also known from the Vogelkop Peninsula, Irian Jaya. It has been collected five times. The wood of the species is likely to be traded as penarahan.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 8013, 11145

**Myristica bifurcata** ssp. **sulaica**
- Myristicaceae
- LR/nt
- Indonesia (Moluccas)
- This subspecies is locally common in lowland well-drained forest on the northern Moluccan Islands (Sula, Halmahera and Obi). The wood of the species is likely to be traded as penarahan.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 8013, 11145

**Myristica brachypoda**
- Myristicaceae
- VU D2
- Papua New Guinea
- The type species was gathered in 1955 in logged-over forest near the Seribi River in the Gulf Province. It is the only known collection of the species.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1493

**Myristica brevistipes**
- Myristicaceae
- VU D2
- Papua New Guinea
- A small tree collected only on one occasion in tall foothill forest in the Central Province.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1493

**Myristica buchneriana**
- Myristicaceae
- VU A1d
- Indonesia (Irian Jaya), Papua New Guinea
- Frequently found on ridge tops between 300 and 1300m, this tree is an important source of penarahan timber.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1493, 11145
Myristicabyssacea
Myristicaceae VU D2
Papua New Guinea
A small tree of montane forest, known from only two collections from the Northern Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristicaceylonica
Myristicaceae VU B1+2c
Sri Lanka
A rare tree confined to remnants of intermediate forest and in drier gallery forest. It has recently been found in seven forest sites during the extensive forest surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195, 19112

Myristicacoacta
Myristicaceae VU D2
Papua New Guinea
Known only from the type collection of 1968, this species occurs in degraded Fagaceous forest of West Sepik Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristicacolinirdsdaelii
Myristicaceae VU D2
Philippines
Endemic to the Palanan area of north-east Luzon, this recently described tree has been collected three times from lowland forest over ultrabasic soil.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristicacenspersa
Myristicaceae DD
Indonesia (Irian Jaya)
A species which provisionally units three collections until further material becomes available. So far its distribution is restricted to primary forest in the Vogelkop Peninsula.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica corticata
Myristicaceae VU D2
Brunei, Malaysia (Sabah)
A tree of lowland primary forest and logged-over forest, known only from a single collection from Brunei and four collections from Sabah.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristicacrassa
Myristicaceae LR/nt
Indonesia (Kalimantan), Malaysia (Peninsular Malaysia), Singapore
This species is uncommon in lowland and hill forest. The wood has been used as penarahan timber.
Assessor: World Conservation Monitoring Centre
Refs: 9199, 11145, 11647, 17140, 18022, 19073, 19078

Myristicacrassipes ssp. marronia
Myristicaceae VU D2
Papua New Guinea
This subspecies is found in open montane Araucaria forest near creeks on Mount Suckling, Milne Bay Province. It is known from only two collections.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristicadactyloides
Myristicaceae LR/cd
Sri Lanka
This Sri Lankan endemic is restricted to the wetter region of the island, where remaining rainforest covers an area of less than 1440km². The species is locally common in lowland and montane rainforest and has been collected many times. It is one of the dominant subcanopy species in Sinharaja Biosphere Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 17195, 17759, 18515, 19112

Myristicadasycarpa
Myristicaceae VU D2
Papua New Guinea
Known only from the type collection, this subcanopy tree was found growing on a ridge at approximately 50m in the Waskuk Hills, East Sepik Province. Another collection from Irian Jaya might belong to this recently described species.
Assessor: World Conservation Monitoring Centre
Refs: 19084

Myristicadepressa
Myristicaceae LR/nt
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A tree restricted to lowland primary mixed dipterocarp forest.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristicadevogelii
Myristicaceae VU D2
Indonesia (Sulawesi)
Endemic to forest on ultrabasic rock in central Sulawesi, this tree has been collected three times from the area north of Lake Matano.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristicaduplopunctata ssp. duplopunctata
Myristicaceae VU D2
Indonesia (Irian Jaya)
A primary forest subspecies, known only from three collections from the coastal mountains of northern Irian Jaya.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristicaduplopunctata ssp. verbsteeghi
Myristicaceae VU D2
Indonesia (Irian Jaya), Papua New Guinea
A tree of primary montane forest, occurring on the northern side of the main range. It is known from four collections.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristicextensa
Myristicaceae VU Alc
Brunei, Indonesia (Kalimantan), Malaysia (Sarawak)
A species of lowland primary forest. Five collections have been gathered from Sarawak, a single collection is
known from Brunei and two collections have come from central and east Kalimantan.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristica fasciculata
Myristicaceae  VU D2
Papua New Guinea
Collected three times, this species is locally common in primary and secondary forest in the upper Sepik River region of Sepik Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493, 19084

Myristica filipes
Myristicaceae  DD
Papua New Guinea
This tree is locally endemic to the Buso River area of the Morobe Province. It has been collected six times in coastal swamp forest, river flat forest and lowland secondary forest.
Assessor: World Conservation Monitoring Centre
Refs: 8013

Myristica fissurata
Myristicaceae  VU D2
Indonesia (Moluccas)
A lowland forest tree, known only from three collections from Baca Island.
Assessor: World Conservation Monitoring Centre
Refs: 8013

Myristica flavivirens
Myristicaceae  VU D2
Indonesia (Irian Jaya)
This tree, found in old primary forest, is known only from the type collection taken from the Kebar Valley in the Vogelkop Peninsula.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica fragrans
Myristicaceae  DD
Indonesia (Moluccas)
The original source of nutmeg. It is thought to occur naturally in the lowland forests of Banda Island in the Moluccas, but it is now widely cultivated in the tropics, becoming naturalised in many areas.
Assessor: World Conservation Monitoring Centre
Refs: 3738, 8915, 18022

Myristica frugifera
Myristicaceae  VU A1c
Philippines
An understorey tree, of primary and disturbed lowland forest, found on the islands of Luzon, Leyte and Mindoro. It is known from five collections.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristica fugax ssp. fugax
Myristicaceae  VU D2
Papua New Guinea
A subspecies of primary and secondary montane forest, collected four times from localities near Isuarava and Lala, Central Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica fugax ssp. septentrionalis
Myristicaceae  VU D2
Papua New Guinea
A tree occurring in foothill and montane forest in East Sepik, Gulf and Madang Provinces, known only from four collections.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica fusiformis ssp. fusiformis
Myristicaceae  VU D2
Indonesia (Irian Jaya)
A small tree found only once in Nothofagus forest in west Irian Jaya.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica fusiformis ssp. pseudostipitalata
Myristicaceae  VU D2
Indonesia (Irian Jaya)
This subspecies is known only from the type specimen, collected from the lower Lorentz River in south-west Irian Jaya.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica gigantea
Myristicaceae  LR/nt
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A large tree found on flat land and hillside up to 700m altitude. The wood is used as penarahan timber.
Assessor: World Conservation Monitoring Centre
Refs: 11145

Myristica globosa
Myristicaceae  LR/nt
Papua New Guinea (North Solomons, Papua New Guinea), Solomon Islands
Confined to evergreen rainforest up to 1200m, this tree is cut for its penarahan timber.
Assessor: World Conservation Monitoring Centre
Refs: 11145

Myristica guadalcanalensis
Myristicaceae  LR/nt
Solomon Islands (South Solomons)
A tree found in well-drained primary and secondary forest endemic to the islands of Guadalcanal, Rennell and Malaita.
Assessor: World Conservation Monitoring Centre
Refs: 18252

Myristica inaequalis
Myristicaceae  VU D2
Indonesia (Irian Jaya)
A recently described species of ridge forest, known only from the type specimen gathered in the Arfak Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 19082

Myristica incredibilis
Myristicaceae  VU D2
Papua New Guinea
A tree known only from the type specimen collected on Rossel Island. This island has a fragile ecosystem, with
very poor soils, which is possibly threatened by gold and
copper mining and logging.
Assessor: World Conservation Monitoring Centre
Refs: 1493, 19032

Myristica inunda
Myristicaceae VU D2
Papua New Guinea
Known only from the type specimen, this species occurs in
seasonally inundated swamp forest in Kiunga, Western Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica kajewski ssp. kajewski
Myristicaceae LR/nt
Solomon Islands (South Solomon)
A tree locally common in well-drained forest, restricted
to Guadalcanal and San Cristóbal.
Assessor: World Conservation Monitoring Centre
Refs: 18252

Myristica kajewski ssp. robusta
Myristicaceae VU D2
Solomon Islands (South Solomon)
A primary forest tree, possibly restricted to ultrabasic
soils. It is known from only two collections, both from
Choiseul.
Assessor: World Conservation Monitoring Centre
Refs: 18252

Myristica kjellbergii
Myristicaceae VU D2
Indonesia (Sulawesi)
A primary forest tree found in central and south-west
Sulawesi, known only from four collections.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristica laevis ssp. badia
Myristicaceae VU D2
Philippines
A small tree known only from the type collection found
in hillside forest from south Surigao, north-east
Mindanao.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristica laevis ssp. laevis
Myristicaceae VU D2
Philippines
This subspecies is known from only two collections
from forest on Mount Sohoton, Samar Island.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristica lanceifolia ssp. australiana
Myristicaceae VU D2
Australia (Northern Territory)
A locally common subspecies, described recently, found
in lowland rainforest, monsoon forest and riparian
evergreen vine forest of the north-west Northern
Territory, including Melville Island.
Assessor: World Conservation Monitoring Centre
Refs: 18251

Myristica lanceifolia ssp. kutubuensis
Myristicaceae VU D2
Papua New Guinea
A tentative new subspecies described from one
specimen. It occurs in primary forest over limestone in
Southern Highlands Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica lasiocarpa
Myristicaceae VU D2
Papua New Guinea
A subcanopy species, occurring as solitary trees in
Notothofagus forest. It has only been collected only twice
from the Kuper range area of the Morobe Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica lepidota ssp. lepidota
Myristicaceae DD
Indonesia (Irian Jaya, Moluccas)
This subspecies, known from five collections, is found
in lowland rainforest in south-west New Guinea and in
Aru and Pulau Wokam Islands of the Moluccas.
Assessor: World Conservation Monitoring Centre
Refs: 8013, 11145

Myristica leptophylla
Myristicaceae VU D2
Papua New Guinea
Known only from the type locality, near Busilmin, West
Sepik Province, the species occurs in secondary
regrowth at medium elevation.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica longipetiolata
Myristicaceae VU D2
Philippines
This forest tree is known only from three collections
from the islands of Luzon and Biliran.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristica lowiana
Myristicaceae LR/nt
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular
Malaysia, Sabah, Sarawak), Singapore
This tree is mainly found in peat-swamp forest; it is
rarely found on dry land. Trees are cut for penarahan
timber.
Assessor: World Conservation Monitoring Centre
Refs: 9199, 11145, 12937, 18022

Myristica magnifica
Myristicaceae EN B1+2c
India (Karnataka, Kerala)
A large tree and dominant component of a restricted area
of lowland evergreen swamp forest in the Agasthyamalai
Hills. There are also two records of the species occurring
in northern Kerala and North Kanara in Karnataka. Very
little of the habitat remains.
Assessor: World Conservation Monitoring Centre
Refs: 10148, 18022, 19144

Myristica maingayi
Myristicaceae LR/nt
Malaysia (Peninsular Malaysia), Singapore
This lowland species is found on hillsides and crests in
Peninsular Malaysia up to 300m. Trees are cut for penarahan timber. There is also a single deviating collection from Sumatra.
Assessor: World Conservation Monitoring Centre
Refs: 9199, 11145, 17140

*Myristica malabarica*
Myristicaceae VU B1+2c
India (Karnataka, Kerala, Maharashtra, Tamil Nadu)
A tree of swamp forest and other lowland forest types, occurring in scattered localities in the Western Ghats. The swamp habitat has been extensively drained for agriculture. There is additional evidence of low seed viability because of unfavourable soil conditions and pollination difficulties. The seed was once used as an adulterant of nutmeg and the plant is often grown as an ornamental.
Assessor: CAMP Workshops on Medicinal Plants in India
Refs: 561, 18022, 18325, 19144

*Myristica malaccensis ssp. papillosa*
Myristicaceae VU D2
Malaysia (Sarawak)
A newly described subspecies, known only from three collections from Sarawak.
Assessor: World Conservation Monitoring Centre
Refs: 11145, 18022

*Myristica mediiovibex var. kosteriana*
Myristicaceae VU D2
Indonesia (Irian Jaya), Papua New Guinea
A variety known from two collections, occurring in primary forest along the Bodem River, Irian Jaya and East Sepik Province, Papua New Guinea.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica mediiovibex var. mediiovibex*
Myristicaceae VU D2
Indonesia (Irian Jaya)
A single locality exists on mainland Irian Jaya and three collections come from Japen Island. The species is reported to be locally common in primary forest.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica mediterranea*
Myristicaceae VU D2
Indonesia (Irian Jaya), Papua New Guinea
Known only from three collections from the southern border between Irian Jaya and Papua New Guinea, this small tree occurs in disturbed forest or semi-swamp in valley forest.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica millepunctata*
Myristicaceae VU D2
Indonesia (Irian Jaya)
A large tree known from two collections from montane forest in south-east Irian Jaya.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica nana*
Myristicaceae VU D2
Papua New Guinea
A small tree, known from four collections, locally endemic to forest in the Central and Milne Bay Provinces.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica olivacea*
Myristicaceae VU D2
Papua New Guinea
An understorey rainforest tree known only from four collections from near Amazon Bay, Central Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica ornata*
Myristicaceae VU D2
Papua New Guinea
Known only from the type specimen, the tree was discovered in lowland rainforest in the Kiunga area, Western Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica oivicarpa*
Myristicaceae VU D2
Papua New Guinea
This tree is known only from the type collection. It was found in lowland hill forest on Mount Don of Rossel Island. Rossel Island has quite a fragile ecosystem with very poor soils; possible threats include mining and logging.
Assessor: World Conservation Monitoring Centre
Refs: 1493, 19032

*Myristica pachycarpidia*
Myristicaceae VU D2
Papua New Guinea
A tree known only from the type locality in oak forest on Mount Dayman, Milne Bay Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica papillatifolia*
Myristicaceae VU D2
Indonesia (Irian Jaya), Papua New Guinea
A small tree found only once in valley forest near Ingambit in the Western Province, near the border with Irian Jaya.
Assessor: World Conservation Monitoring Centre
Refs: 1493

*Myristica perlaevis*
Myristicaceae VU D2
Indonesia (Malouucas)
Discovered in 1990, this tree is known only from the type collection found in the Ruwa catchment area of Ceram.
Assessor: World Conservation Monitoring Centre
Refs: 18022

*Myristica petiolata*
Myristicaceae VU D2
Solomon Islands (South Solomon)
A forest tree known only from two collections: Santa Ysabel and Big Nggela Island.
Assessor: World Conservation Monitoring Centre
Refs: 18252
**Myristica philippensis**  
Myristicaceae, VU A1c, Philippines  
A small tree restricted to the lowlands of Luzon. No recent collections of this species have been made.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 11145, 19078

**Myristica pilosella**  
Myristicaceae, VU D2, Papua New Guinea  
A small tree known only from a site of *Castanopsis* forest at the junction of the Ugat and Mayu Rivers in Milne Bay Province.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1493

**Myristica pilosigemma**  
Myristicaceae, VU A1c, D2, Philippines  
A tree restricted to Samar and Mindanao and known from only two herbarium specimens.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18022

**Myristica polyantha**  
Myristicaceae, VU D2, Papua New Guinea  
A canopy or subcanopy tree restricted to Goodenough Island, where it has been collected twice. The D’Entreresaux Islands harbour many locally endemic species and require botanical investigation.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1493, 19032

**Myristica psilocarpa**  
Myristicaceae, VU D2, Papua New Guinea  
An endemic to Manus Island, this tree has been collected twice in areas of lowland rainforest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1493

**Myristica pubicarpa**  
Myristicaceae, VU D2, Indonesia (Moluccas)  
So far the species is known from four collections, all from Halmahera and Obi. Solitary trees are found in both open and dense primary forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8013

**Myristica pygmaea**  
Myristicaceae, VU D2, Papua New Guinea  
A small tree, endemic to Morobe Province, where it has been collected twice in lowland rainforest and logged forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1493

**Myristica robusta**  
Myristicaceae, VU D2, Indonesia (Moluccas)  
A distinctive solitary tree, known only from the type collection, found in disturbed lowland forest with little undergrowth. The lowland forest in Bacan is rapidly disappearing.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8013

**Myristica roselsensis ssp. minutiflora**  
Myristicaceae, VU D2, Papua New Guinea  
A tree occurring in rainforest on ridge crests between 100 and 300m. It is known from two collections, one from Sudest Island and the other from Rossel Island.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19082

**Myristica rubrinervis var. duplex**  
Myristicaceae, VU A1c, D2, Philippines  
A newly described variety found in rainforest, montane and ridge forest on the islands of Palawan, Mindoro and Leyte. It is known from a total of only five collections.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18022

**Myristica rubrinervis var. rubrinervis**  
Myristicaceae, VU D2, Philippines  
So far this variety is known only from three collections from Palawan, where it occurs in stunted montane rainforest, sometimes on ultrabasic rock. The main island is a biosphere reserve.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18022

**Myristica rumphii var. florentis**  
Myristicaceae, VU B1+2c, Indonesia (Lesser Sunda Is.)  
This variety is confined to montane forest on Flores Island. It has been collected a total of nine times.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8013

**Myristica sarcantha**  
Myristicaceae, VU D2, Indonesia (Irian Jaya)  
An understory tree known only from the type collection from mixed primary lowland forest in Sarmi, northern Irian Jaya.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3641, 19084

**Myristica schlechteri**  
Myristicaceae, VU D2, Papua New Guinea  
The only specimen of this understory tree was collected in 1908 in forest near Pema, Morobe Province.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1493

**Myristica simiarum ssp. calcarea**  
Myristicaceae, VU D2, Indonesia (Kalimantan), Malaysia (Sarawak)  
A forest tree, usually found on limestone; to date it is known from west and north-east Kalimantan and west Sarawak.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18022
Myristica simulans
Myristicaceae VU D2
Papua New Guinea
The sole collection of this tree was gathered from riverine rainforest at Modewa Bay, Milne Bay Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica sinclairii
Myristicaceae VU D2
Papua New Guinea
A total of five collections of this understorey tree have been gathered from Castanopsis forest, restricted to Morobe Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica sageriensis
Myristicaceae VU D2
Papua New Guinea
Endemic to the Sogeri region of Central Province, this shrub or small tree has been collected twice in foothill forest.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica subalulata var. hagensis
Myristicaceae VU D2
Papua New Guinea
This variety is found in montane Nothofagus or Castanopsis forest. It is known from five collections.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica subalulata var. leptantha
Myristicaceae VU D2
Indonesia (Irian Jaya), Papua New Guinea
A variety known from three disjunct localities of forest in the Vogelkop Peninsula, Irian Jaya, and Western and Sepik Provinces, Papua New Guinea.
Assessor: World Conservation Monitoring Centre
Refs: 1493, 19084

Myristica subalulata var. pedunculata
Myristicaceae VU D2
Papua New Guinea
A small tree, known only from the type locality at a streamside in lowland rainforest in the Gulf Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493, 19084

Myristica subcordata var. rimoso
Myristicaceae VU D2
Indonesia (Irian Jaya)
This variety is known from only four collections, gathered in forest on bedrock on the Vogelkop peninsula.
Assessor: World Conservation Monitoring Centre
Refs: 3641

Myristica succadanea
Myristicaceae LR/nt
Indonesia (Moluccas)
A small tree of lowland and montane primary forest, found on the islands of Ternate, Tidore and Bacan.
Assessor: World Conservation Monitoring Centre
Refs: 8013, 17232

Myristica tamrauensis
Myristicaceae VU D2
Indonesia (Irian Jaya)
A small tree restricted to the Tamrau range of the northern Vogelkop Peninsula, where it has been collected twice in primary oak forest.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica teisemannii
Myristicaceae EN B1+2c
Indonesia (Java)
From Pacitan to Kawi the species occurs in mixed lowland forest up to 700m. The habitat has been almost completely cleared at this altitude and there is intense pressure on remaining forested areas. There have been no recent collections.
Assessor: de Wilde, W.J.J.O.
Refs: 9078, 18022, 19078

Myristica tenuivenia ssp. lignosa
Myristicaceae VU D2
Papua New Guinea
A subspecies of hill forest, known only from a single collection from Fergusson Island and a single collection from Rossel Island.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica trianthera
Myristicaceae VU D2
Indonesia (Irian Jaya)
Restricted to the Jayapura area, this small tree has been collected twice from lowland periodically flooded forest.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica tristis ssp. ingambienense
Myristicaceae VU D2
Indonesia (Irian Jaya), Papua New Guinea
This subspecies is known from two collections from two localities of secondary forest, one in south-east Irian Jaya and the other in south-west Papua New Guinea.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica tristis ssp. louisiadensis
Myristicaceae VU D2
Papua New Guinea
A subcanopy tree of lowland forest, known from a single collection from Sudest (Tagula) Island and from one or two collections from Rossel Island.
Assessor: World Conservation Monitoring Centre
Refs: 1493

Myristica tristis ssp. sessilifructa
Myristicaceae VU D2
Indonesia (Moluccas)
A solitary species, known from a single collection from lowland forest on Bacan Island.
Assessor: World Conservation Monitoring Centre
Refs: 18022

Myristica ultrabasica
Myristicaceae VU D2
Indonesia (Sulawesi)
A tree restricted to forest over ultrabasic (nickel) soils of

Species Summaries
central Sulawesi. It has been collected four times.
Assessor: World Conservation Monitoring Centre
Refs: 18022

**Myristica velutina ssp. breviflora**
Myristicaceae  VU D2
Papua New Guinea
This subspecies is restricted to the West Sepik and Western Provinces, where it has been collected five times in montane forest.
Assessor: World Conservation Monitoring Centre
Refs: 1493

**Myristica verruculosa**
Myristicaceae  VU D2
Indonesia (Irian Jaya)
Known from five collections, this tree occurs in secondary forest on limestone from the Vogelkop and Bombarai Peninsulas.
Assessor: World Conservation Monitoring Centre
Refs: 3641

**Myristica warburgii ssp. hybrida**
Myristicaceae  VU D2
Papua New Guinea
This subspecies is restricted to mixed primary montane forest in the East Highlands Province, where it has been collected twice, and possibly Sepik Province.
Assessor: World Conservation Monitoring Centre
Refs: 1493

**Myristica warburgii ssp. siphonantha**
Myristicaceae  VU D2
Indonesia (Irian Jaya), Papua New Guinea
This subspecies has been collected five times from the northern slopes of New Guinea.
Assessor: World Conservation Monitoring Centre
Refs: 1493

**Myristica xylocarpa**
Myristicaceae  LR/nt
Solomon Islands (South Solomon)
A tree that occurs in well-drained forest and ridge forest up to 250m on the islands of Santa Ysabel, San Cristóbal and Guadalcanal.
Assessor: World Conservation Monitoring Centre
Refs: 18252

**Myristica yunnanensis**
Myristicaceae  CR D1
China (Yunnan)
A species recorded from four small localities in Mengla, in Xishuangbanna, where it occurs in low-elevation humid monsoon forest. The species is extinct from two of these localities and approximately 20 trees have been recorded in remaining populations. They appear to be unhealthy and rarely set seed.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 19055

**Myrocarpus frondosus**
Leguminosae  DD
Argentina (Corrientes, Misiones), Brazil (Minas Gerais, Paraná, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, São Paulo), Paraguay
A good-quality commercial timber tree, which is widely occurring within an area of seasonally dry forest extending from the south-east coast of Brazil to Paraguay and northern Argentina. The expansion of agriculture has caused severe habitat loss in Argentina.
Assessor: Prado, D.
Refs: 1262, 5112, 7906, 9173, 12837

**Myrrhinium atropurpureum var. atropurpureum**
Myrtaceae  CR B1+2c
Brazil
A monotypic genus which is divided into two varieties. This variety is restricted to *restinga* vegetation in Rio de Janeiro. It does not appear to have been collected recently. This habitat is in serious danger of disappearing. The other variety is widespread in temperate and subtropical South America.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

**Myrsine adamsonii**
Myrsinaceae  DD
French Polynesia (Marquesas Is.)
An endemic to Nuku Hiva.
Assessor: Florence, J.
Refs: 14513

**Myrsine andersonii**
Myrsinaceae  CR B1+2c
French Polynesia (Tubuai Is.)
Although little is known about the populations on Rapa, the species is in a critical state on the islands of Raivavae and Tubuai.
Assessor: Florence, J.
Refs: 14513

**Myrsine brownii**
Myrsinaceae  CR B1+2c
French Polynesia (Tubuai Is.)
Little is known about the population on Tubuai, but the species is critically threatened on the island of Raivavae.
Assessor: Florence, J.
Refs: 14513

**Myrsine bullata**
Myrsinaceae  VU D2
Peru
A cloud forest species, known only from the department of San Martin, occurring roughly between 3000 and 3500m.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Myrsine degeneri**
Myrsinaceae  VU D2
USA (Hawaii)
A small rainforest tree restricted to populations in Puakeahiakahoe and Kawai Nui on the summit of Koolau Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 3372

**Myrsine diazii**
Myrsinaceae  VU D2
Peru
Known only from the type collection, this cloud forest species occurs in the department of Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 1984
Myrsine fernseei
Myrsinaceae
USA (Hawaii)
This is a shrub or small tree of bogs and streamsides endemic to Kauai and known from several localities, Wahiawa, Powerline Trail, the headwaters of Hanalei River and Kaloko Reservoir.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Myrsine fossbergii
Myrsinaceae
USA (Hawaii)
An uncommon species confined to Oahu, where it is known from populations in cloud-swept forest along the crest of the Koolau Mountains from the south-eastern end to Castle Trail.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Myrsine gracilissima
Myrsinaceae
French Polynesia (Marquesas Is.)
The species is known only from Hiva Oa.
Assessor: Florence, J.
Refs: 14513

Myrsine grantii var. lobifolia
Myrsinaceae
French Polynesia (Marquesas Is.)
The species is known only from Nuku Hiva.
Assessor: Florence, J.
Refs: 14513

Myrsine hartii
Myrsinaceae
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Myrsine hosakae
Myrsinaceae
Pitcairn Islands
One of the least common of the Henderson Island endemics. Up to 7000 individuals may exist, scattered in the plateau forest. The species is dioecious and may be suffering from the heavy predation of fruits, often before they are ripe, by doves. Ex situ germination tests have failed so far as many seeds appear to lack embryos. Henderson Island is a World Heritage Site.
Assessor: Waldren, S.
Refs: 12900, 13604

Myrsine knudsenii
Myrsinaceae
USA (Hawaii)
Endemic to Kauai, the species occurs in rainforest between 1060 and 1220m in altitude in Kokee and Hanapepe Valley.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Myrsine longifolia
Myrsinaceae
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Myrsine mezii
Myrsinaceae
USA (Hawaii)
A small tree known from the ridge west of Hanapepe River on Kauai. It has been postulated that the species represents a hybrid between Myrsine mezii and Myrsine grantii, although the distribution of the latter does not coincide closely with that of Myrsine mezii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Myrsine obovata
Myrsinaceae
French Polynesia (Society Is.)
The species is known only from Raiatea.
Assessor: Florence, J.
Refs: 14513

Myrsine oliveri
Myrsinaceae
New Zealand (North Is.)
An endemic to the Three Kings Islands. Information from the Red Data Book in 1981 indicated that very few individuals remained in coastal forest on Great Island. Current population figures are not available but are no longer believed to be at a critical low.
Assessor: World Conservation Monitoring Centre
Refs: 902, 17637, 19133

Myrsine oreohenensis
Myrsinaceae
French Polynesia (Society Is.)
The species is known only from Tahiti.
Assessor: Florence, J.
Refs: 14513

Myrsine ovalis var. ovalis
Myrsinaceae
French Polynesia (Society Is.)
Populations are recorded from Huahine, Raiatea and Tahiti.
Assessor: Florence, J.
Refs: 14513

Myrsine pearce
Myrsinaceae
Peru
This cloud forest species is endemic to Cuzco, where it occurs within the altitudinal range of 2500 to 4000m.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Myrsine petiolata
Myrsinaceae
USA (Hawaii)
Normally a shrub but occasionally a small tree the species mainly occurs in boggy shrubland and forest in the eastern half of Kauai and along Alakai Swamp Trail.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Myrsine raiateensis
Myrsinaceae
French Polynesia (Society Is.)
An endemic to Raiatea.
Assessor: Florence, J.
Refs: 14513
**Myrsine reynelii**
Myrsinaceae  
Peru  
A cloud forest species, known only from the department of Piura.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Myrsine rivularis**
Myrsinaceae  
Peru  
Recorded only from the type collection, the species occurs in forest up to about 2000m in the department of Puno.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Myrsine ronuiensis**
Myrsinaceae  
French Polynesia (Society Is.)  
The species is known only from Tahiti.  
Assessor: Florence, J.  
Refs: 14513

**Myrsine sodiroana**
Myrsinaceae  
Ecuador  
An endemic tree of Ecuador currently known only to occur in Pichincha and Cotopaxi. The habitat of this species is High Andean cloud forest between 1500 and 3500m.  
Assessor: World Conservation Monitoring Centre  
Refs: 19119, 19120

**Myrsine tahuatensis**
Myrsinaceae  
French Polynesia (Marquesas Is.)  
An endemic to Tahuata.  
Assessor: Florence, J.  
Refs: 14513

**Myrtus claraensis**
Myrtaceae  
Cuba  
Very uncommon, this shrub, sometimes a small tree, is confined to the coastal areas of Casilda in Sancti Spiritus Province. Housing development and the expansion of tourism have caused extremely severe habitat decline.  
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

**Nageia maxima**
Podocarpaceae  
Malaysia (Sarawak)  
An understory tree of peat-swamp forest. Present information suggests the species is confined to the Mujong River drainage and Bako National Park, but it is possible other populations exist in nearby localities. The area is vulnerable to disturbance from logging and habitat clearance for agriculture.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 2226, 6851, 19192

**Nageia nagi**
Podocarpaceae  
DD  
China, Japan (Japan, Ryukyu Is.), Taiwan  
An important timber species occurring in moist forest at various elevations in southern China, Taiwan and the southern islands of Japan. There is concern for populations on Shikoku and Kyushu Islands in Japan because of the levels of exploitation. In Taiwan the species is known under the name *N. formosensi*. It is also known under the name of *N. nagi*, the species appears in populations in the northern end and southern tip of Taiwan, separated by the central range of mountains. Occurring in lowland mixed evergreen forest, the species has come under threat from habitat declines. Whole plants are also dug up for the horticultural trade. The species is recorded in Kenting and Yangmingshan National Parks.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 6469, 11380, 18751, 19050, 19051

**Napoleaonaea lutea**
Lecythidaceae  
CR A1c, B1+2c  
Nigeria  
This species, along with *N. reptans*, is poorly documented and apparently confined to Eket in south-east Nigeria. Oil exploration operations in the area are causing extensive damage, to the habitat, if not its complete destruction.  
Assessor: World Conservation Monitoring Centre  
Refs: 450, 2773, 11504

**Napoleaonaea reptans**
Lecythidaceae  
CR B1+2c  
Nigeria  
This species, along with *N. lutea*, is poorly documented and confined to the Eket area in south-east Nigeria. Oil exploration operations are causing extensive damage, if not complete destruction of the habitat.  
Assessor: World Conservation Monitoring Centre  
Refs: 450, 2773, 11504

**Nargedia macrocarpa**
Rubiaceae  
VU A1c  
Sri Lanka  
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 17195

**Nauclea diderrichii**
Rubiaceae  
VU A1cd  
Angola, Cameroon, Central African Republic, Congo, Côte d’Ivoire, Democratic Republic of Congo, Gabon, Ghana, Liberia, Mozambique, Nigeria, Sierra Leone, Uganda  
A widespread species which is found in low densities in the wild. It is heavily exploited for its timber, which is used in general construction work. Regeneration is good in large canopy gaps but the species is outcompeted by other pioneers after clear-felling.  
Assessor: African Regional Workshop  
Refs: 2773, 6718, 10961, 12061, 14667, 17408

**Nauclea gageana**
Rubiaceae  
CR B1+2c  
India (Andaman and Nicobar Is. - Andaman Is.)  
A large tree collected from Middle and South Andaman Islands in the 19th century. No record of the species has been made since and little is known of its present status, if it still exists.  
Assessor: World Conservation Monitoring Centre  
Refs: 4799, 7147
Naucleopsis oblongifolia  
Moraceae  
VU B1+2bc  
Brazil  
Assessor: Carauta, J.P.P.  
Refs: 15117, 19101

Necesia castaneifolia ssp. chirindica  
Euphorbiaceae  
EN D1  
Zimbabwe  
Endemic to Chirinda forest, this subspecies occupies an area of just 0.5km². The forest has been logged in the past and is most heavily disturbed at the perimeter, where it is at risk from invasive species, drought and fire. It is otherwise well protected and the population is healthy. Other subspecies of this taxon are known from Tanzania and Madagascar.  
Assessor: World Conservation Monitoring Centre  
Refs: 6725

Necesia castaneifolia ssp. kimboensis  
Euphorbiaceae  
EN C2b, D1  
Tanzania  
The East African form of a taxon also occurring as a distinct subspecies in Chirinda forest, Zimbabwe, and thereafter only in Madagascar. This subspecies is confined to a 4km² patch of moist forest on limestone contained within Kimboza Forest Reserve. The surrounding area is densely populated but two forest guards are employed by the Tanzanian Catchment Forest Project to prevent illegal activities.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 10961

Nectandra angusta  
Lauraceae  
VU D2  
Bolivia  
A species known from just three locations on the eastern slopes of the Andes from central and southern parts of Bolivia. One of the most important timber trees in the area, it is being heavily exploited in at least one of these sites. It is closely related to N. longifolia, a more widespread species in the same region.  
Assessor: Rohwer, J.G.  
Refs: 7980, 9262, 12663

Nectandra apiculata  
Lauraceae  
VU D2  
Bolivia  
Restricted to cloud forest, this species has been collected from just one site on the Cochabamba to Santa Cruz road. More material is needed to ascertain whether similar collections nearby are the same species.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 9262

Nectandra astyla  
Lauraceae  
VU D2  
Peru  
A montane species, which is known only from the type collection near Moyobamba.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 9262

Nectandra aurea  
Lauraceae  
LR/nt  
Venezuela  
A gallery forest tree from the banks of the Orinoco. Its range covers an area greater than 20,000 km². It is possible that this will increase as additional undetermined material is studied.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 9262

Nectandra baccans  
Lauraceae  
LR/cd  
Venezuela  
An evergreen species known from a few locations in dry forest or cloud forest, between 750 and 2400m. Although there is considerable population pressure in much of its range, it is well represented in protected areas.  
Assessor: Rohwer, J.G.  
Refs: 9262, 12663

Nectandra barbellata  
Lauraceae  
VU B1+2c, D2  
Brazil (Espírito Santo, São Paulo)  
This forest species is known from just a few collections in south-east Brazil, where the rates of deforestation have been considerable. Doubts as to its being a separate entity from the variable species N. puberula have been expressed.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 9262

Nectandra bartlettiana  
Lauraceae  
LR/nt  
Venezuela  
A relatively wide-ranging tree from lowland moist forest on both sides of the Cordillera de Mérida in Venezuela. This includes records from forest reserves, Ticoporo and Caparo.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 9262

Nectandra bicolor  
Lauraceae  
EN B1+2c  
Panama  
The species is known from just a small population confined to a unique low-altitude cloud forest on the Cerro Jefe. The area is well protected and essential as a watershed. Very little is actually known about the species.  
Assessor: Mitré, M.  
Refs: 7950, 7980, 9262, 16772

Nectandra britanii  
Lauraceae  
VU D2  
Bolivia, Peru  
An understory species, which occurs in disjunct populations. The 1886 type collection is from La Paz. In Peru, the tree has been collected in pastures and in tall forest.  
Assessor: Rohwer, J.G.  
Refs: 7980, 9262, 12663

Nectandra brochidodroma  
Lauraceae  
VU D2  
Peru  
A striking species on account of the leaf venation. It is known only from the type collection in Manu National Park. The park protects 15,328 km² of forest, although there are threats from oil exploitation.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 9262
Nectandra canaliculata
Lauraceae VU D2
Ecuador
A tree which is known only from the type collection from Limonococha.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra caudatotumacumata
Lauraceae CR B1+2c
Haiti
This species is even less well collected than its close relative _N. pulchra_. It is known only from the type collection, which was made in 1929 on the Massif de la Hotte. These forests are under considerable pressure from local exploitation and encroaching agriculture. Fieldwork is needed to confirm whether the population is still intact.
_Assessor: World Conservation Monitoring Centre
_Refs: 197, 7980, 9262

Nectandra cerifolia
Lauraceae VU D2
Ecuador
A collection in *elfin forest on the western slopes of the Cordillera de Cutucú was made in 1976. No other record of the small tree species is known.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra coeloclada
Lauraceae VU D2
Ecuador
An unusual _Nectandra_ species on account of its hollow twigs. It occurs in humid forest in Jauá Sacha Biological Reserve. Collections from Morona Santiago also seem to concur with this species.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra cordata
Lauraceae DD
Peru
A tree known only from the type specimen, which was collected in 1933. Information on its ecology and habitat are lacking.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra crassiloba
Lauraceae VU D2
Ecuador
Occurring as a tall tree in primary and secondary rainforest, this species is apparently confined to two adjacent localities.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra crassifrons
Lauraceae VU D2
Ecuador
A species which is known only from the type collection in the Alexander von Humboldt National Forest, which extends to 5708km². Its inflorescence and pedicels are unlike any other in the genus.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra cufodontisii
Lauraceae LR/nt
Costa Rica, Nicaragua, Panama
A distinctive tree found only in montane and cloud forests from Palmito and Potosi through the Cordillera de Talamanca to the Chiriquí highlands in Panama. It also recently been collected from the Central Cordillera of Nicaragua. Much of its distribution lies in protected areas but there is still some threat of deforestation. It yields a hard yellow-wood.
_Assessor: World Conservation Monitoring Centre
_Refs: 9262, 12587

Nectandra dasystyla
Lauraceae VU C2a
Bolivia, Ecuador? (Ecuador?), Peru
Occurring in moist lowland forest, this large-flowered and conspicuous species is known from only a few locations in Loreto, including Alexander von Humboldt National Forest, and in Beni and Pando. A collection of doubtful identity has also been found in Manabí in Ecuador.
_Assessor: Rohwer, J.G.
_Refs: 9262, 12663

Nectandra deblis
Lauraceae CR A1c
Brazil (Espírito Santo, Rio de Janeiro)
An Atlantic forest species, which hasn't been collected for over 100 years. A tiny fraction of these forests has survived the past centuries of deforestation.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra embirensis
Lauraceae DD
Brazil (Amazonas), Ecuador, Peru
So far only three locations are known where the species occurs in *várzea* forest or rainforest at the mouth of rivers. These include Río Zunibeta in Loreto, Peru, and Río Envira in Amazonas, Brazil. Each population in each country is notably distinct.
_Assessor: Rohwer, J.G.
_Refs: 9262, 12663

Nectandra filiflora
Lauraceae VU D2
Peru
A species which is known only from the type collection in the Alexander von Humboldt National Forest, which extends to 5708km². Its inflorescence and pedicels are unlike any other in the genus.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra fragrans
Lauraceae VU D2
Ecuador
A species known only from a collection, in 1989, from the Cordillera de Cutucú.
_Assessor: World Conservation Monitoring Centre
_Refs: 7980, 9262

Nectandra fulva
Lauraceae VU D2
Venezuela
Only one population is known. It occurs on the Río Mawarinuma near the Nebilna Base Camp. The area is protected within a national park but disturbances have
been caused by gold mining, and pressures also exist from the influx of people.

Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

Nectandra gracilis
Lauraceae
LR/nt
Ecuador, Peru
A newly described Amazon tree species, occurring in seasonally inundated forest. The number of sites where it is found continues to increase.
Assessor: Rohwer, J.G.
Refs: 7980, 9262, 12663

Nectandra impressa
Lauraceae
DD
Brazil
This species is known only from the type specimen collected in the last century. It has not been found since and its locality in the wild remains unknown.
Assessor: Rohwer, J.G.
Refs: 7980, 9262, 12663

Nectandra guadariensis
Lauraceae
VU D2
Brazil (Amazonas), Peru
Not known from any locality. Known from the banks of Rio Japurá, this species occurs in *várzea* forest.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

Nectandra hirtella
Lauraceae
VU D2
Peru
A newly described species which has been recorded from two sites in subtropical forest.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

Nectandra hypoleuca
Lauraceae
VU D2
Costa Rica
A Central American *Nectandra* species which is most closely related to Amazonian species. This tree is known with certainty from La Selva Biological Station from secondary woodlands and alluvial forest along the Rio Puerto Viejo. The area is protected but occupies a small corridor of forest now surrounded by pastureland and crops. More material is needed to confirm the species' occurrence in the Sirena Field Station in Puntarenas.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

Nectandra krugii
Lauraceae
EN A1cd+2c, B1+2cd
Antigua and Barbuda, Dominica, Dominican Republic, Guadeloupe, Martinique, Netherlands Antilles, Puerto Rico
This Caribbean forest tree ranges from Dominica (and possibly Martinique) to western Dominican Republic. The forest in most of these areas has been heavily exploited. The species was noted in 1896 as becoming rare as a result of excessive exploitation and in the last 70 years it has only been collected in Puerto Rico.
Assessor: Rohwer, J.G.
Refs: 197, 7424, 7980, 9262, 12663

Nectandra latissima
Lauraceae
VU D2
Bolivia
Occurring as a small tree or shrub, this species is confined to islands of forest in savanna in the province of Beni.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

Nectandra leucocome
Lauraceae
EN B1+2c
Mexico (Chiapas)
A seriously restricted species, which with the more widespread *N. ambigua*, is the only species of the genus to produce pink flowers. It is recorded only from tall evergreen forest in Chiapas. These forests, in particular, have suffered dramatic declines in extent, largely because of land settlement and cattle ranching.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

Nectandra longipetiolata
Lauraceae
EN B1+2cd
Costa Rica
This small tree is known from three collections from...
lower ridges in remnant primary forest near Limón. There has been large-scale conversion of these forests over the last 50 years into pastureland.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1970, 1980, 9262

*Nectandra matogrossensis*

**Lauraceae**

**VU D2**

Brazil (Bahia, Mato Grosso)

Closely related to *N. globosa*, this species is known from southern coastal Brazil and adjacent Mato Grosso in gallery forest and also in secondary vegetation and cocoa plantations, where it is used as a shade tree. A disjunct and doubtful locality also exists 1800 km inland.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 9262, 12663

*Nectandra matudai*

**Lauraceae**

**VU B1+2c**

Mexico (Chiapas, Oaxaca)

Restricted to deciduous or secondary forests. There have been considerable declines in the extent of the forest, largely because of land settlement and cattle ranching.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7950, 1980, 199262

*Nectandra micranthera*

**Lauraceae**

**VU A1c+2c**

Brazil (Bahia)

This tree species is restricted to the remnants of coastal rainforest and the cocoa plantations which have taken the place of forest. With more up-to-date information a more serious threat category might apply.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1970, 1980, 9262

*Nectandra microcarpa*

**Lauraceae**

**LR/nt**

Colombia, Peru

Occurring in lowland rainforest often along rivers, this shrubby tree is known from the edges of Río Huallaga in Peru and from a more doubtful collection in Colombia. A record which may be erroneous has also been made in Argentina.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1954, 19780, 199262

*Nectandra minima*

**Lauraceae**

**CR B1+2c**

Cuba

The only collections of this shrub or small tree, from Isla de Pinos and the adjacent mainland, were made over 50 years ago. Natural vegetation remains only where land is unsuitable for agriculture. Fieldwork is necessary to determine how many individuals exist.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 1950, 19780, 199262, 19149

*Nectandra mirifloris*

**Lauraceae**

**VU D2**

Nicaragua

A tree which is known solely from montane and cloud forests in Nicaragua.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1980, 9262, 15719

*Nectandra obtusata*

**Lauraceae**

**LR/nt**

Colombia, Ecuador

A tree species collected from southernmost Colombia to Ecuador in Andean cloud and montane forests. The number of collections in Ecuador appears to be increasing and part of the population is in Río Guajalito Floristic Reserve.

**Assessor:** Rohwer, J.G.

**Refs:** 1970, 9262, 12663

*Nectandra olida*

**Lauraceae**

**VU B1+2c**

Ecuador, Peru

A rainforest tree restricted to a fairly small range from southern Ecuador to northern Peru on the eastern slopes of the Andes. Threats exist from fires and encroaching farming activities.

**Assessor:** Rohwer, J.G.

**Refs:** 1970, 9262, 12663

*Nectandra paranaensis*

**Lauraceae**

**VU A1c+2c**

Brazil (Paraná, São Paulo)

A tree which is confined to primary rainforest in southeast Brazil. In São Paulo it is restricted to Carlos Botelho State Park.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1970, 1980, 9262

*Nectandra parviflora*

**Lauraceae**

**VU D2**

Ecuador, Peru?

This is a primary forest species, which is largely known from the region of Río Pastaza. Another slightly different collection has been made in Loreto. Despite intensive collecting in Ecuador the species has not been found to be more widespread.

**Assessor:** Rohwer, J.G.

**Refs:** 1970, 9262, 12663

*Nectandra psammophila*

**Lauraceae**

**EN A1c**

Brazil (Bahia, Espírito Santo, Minas Gerais, Rio de Janeiro)

The *restinga* vegetation to which the species is confined is being rapidly destroyed, especially in the region of Rio de Janeiro. Only four collections have been made in the last 50 years.

**Assessor:** Rohwer, J.G.

**Refs:** 1970, 9262, 12663

*Nectandra pseudococca*

**Lauraceae**

**VU A1c+2c**

Peru

This species is restricted to forest in the foothills of the Peruvian Andes where fires are frequent. It is one of the most distinctive species of its genus on account of the pattern of glands in the stamens and staminodes.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1970, 9262

*Nectandra pulchra*

**Lauraceae**

**CR B1+2c**

Haiti

The species has not been collected since 1927, when it occurred in the vicinity of Miragoane on limestone crags. Forest areas in Haiti have declined rapidly in the
past century and the demand for land to cultivate continues to put pressure on remaining areas.

Assessor: World Conservation Monitoring Centre
Refs: 197, 7980, 9262

**Nectandra ramonensis**
Lauraceae  VU B1+2c
Costa Rica, Panama
This tree species is confined to drier montane forests from central Costa Rica to Coclé in Panama. Much of the area is covered by La Amistad Biosphere Reserve but forest destruction in the past decades has been considerable and pressures are still exerted by various activities: expanding agriculture, logging, industrial plantations, oil exploration, hydroelectric projects.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra reflexa**
Lauraceae  VU D2
Ecuador, Peru
This species is known from a few collections, each so different that they may be worthy of distinction. Populations are found in pastureland or primary forest. In Ecuador the species is found in the Cordillera de Cutucu. In Peru it has been collected from a location near Quebrada, from Cajamarca and from three locations in Pasco.
Assessor: Rohwer, J.G.
Refs: 9262, 12663

**Nectandra rudis**
Lauraceae  VU A1c+2c
El Salvador, Guatemala, Mexico (Chiapas)
This species occurs in montane forests, which have declined in extent and continue to be under serious threat of deforestation.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra ruforumula**
Lauraceae  LR/nt
Venezuela
A tree species which is restricted to the lowland link between the Orinoco and Amazon basins in Venezuela. Its extent of occurrence covers in the region of 50,000km².
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra salicina**
Lauraceae  LR/nt
Costa Rica, Panama
In Costa Rica and Panama the species is confined to montane forests, between 370 and 2000m. One collection made in Mexico is probably a new species. This species does not appear to be rare where it occurs but the dramatic declines in the habitat may qualify it for a threat category. It occurs in Rincón de la Vieja National Park.
Assessor: Rohwer, J.G.
Refs: 7950, 8100, 9262, 12663

**Nectandra smithii**
Lauraceae  VU A1c, B1+2c
Costa Rica, Panama
Originally recorded only from Costa Rican cloud forest, this tree may now have been found in Panama. It occurs in submontane forest.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra sordida**
Lauraceae  VU A1c+2c
Peru
This species is relatively widespread, but restricted to remnant primary forest, mostly in coffee plantations. The potentially unbalanced structure of the populations and their location put the species at risk.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra spicata**
Lauraceae  DD
Brazil (Rio de Janeiro)
A species known only from the surroundings of Rio de Janeiro city, where it is under serious threat from habitat destruction. Additional material is required to confirm its taxonomic status as separate from *N. hihua* and *N. leucantha*.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra subbullata**
Lauraceae  VU D2
Venezuela
A tree species which is known only from the type taken on the road from Mérida to La Azulita in 1982. It is very closely related to the more widespread *N. cissiflora*.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra truxillensis**
Lauraceae  LR/nt
Venezuela
A small tree known from several locations on the Cordillera de Mérida in Venezuela.
Assessor: World Conservation Monitoring Centre
Refs: 9262

**Nectandra utilis**
Lauraceae  EN B1+2cd
Peru
This tree occurs in Andean forests in northern Peru. It is known from only two locations and has not been collected again for some years, which may indicate that there has been a serious decline in the population. It apparently has the reputation of being the most-used general-purpose timber in the Chachapoya area.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262, 12663

**Nectandra venulosa**
Lauraceae  DD
Brazil (Minas Gerais)
This is a poorly known tree species from Serra do Frio in Minas Gerais. It is known from only herbarium specimens, the most recent of which is from 1864.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9262

**Nectandra warmingii**
Lauraceae  LR/nt
Brazil (Bahia, Minas Gerais)
An easily overlooked tree of gallery forest and dry forest

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in the savanna regions of central Brazil. It is planted in Brasilia Federal District.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9262

**Nectandra weddellii**  
Lauraceae  
EN B1+2c  
Brazil (Rio de Janeiro)  
A species collected only from within a 250km radius of Rio de Janeiro city.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 9262

**Nectandra wurackii**  
Lauraceae  
VU D2  
Peru  
A little-known species with only one recorded location, in Amazon rainforest along Rio Marañon near Teniente Pingo in Loreto.  
**Assessor:** Rohwer, J.G.  
**Refs:** 7980, 9262, 12663

**Nectandra yarinensis**  
Lauraceae  
DD  
Peru  
A species known solely from two collections in the Rio Ucayali, one being in the Iparfa National Forest. More material would help determine its taxonomic position.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 9262

**Neea acuminatissima**  
Nyctaginaceae  
EN C2a  
Guatemala, Honduras  
Confined to the wet Caribbean lowlands, the species is scattered in sparse populations, including a rare occurrence in Lancetilla Biological Reserve.  
**Assessor:** Nelson, C.  
**Refs:** 13995

**Neea amplexicaulis**  
Nyctaginaceae  
EN C2a  
Panama  
Known only from a few records, the species is endemic to areas of lowland rainforest in Darién Province. It appears to be uncommon and only in Darién National Park is it relatively well protected. Elsewhere the threats of habitat clearance are great. There are no recent records of the species but much of the forest remains under-studied.  
**Assessor:** Mitré, M.  
**Refs:** 7980, 14453, 16772

**Neea darianensis**  
Nyctaginaceae  
VU A2c  
Panama  
Originally known from just Darién Province, the species now appears to have a sparse occurrence in lowland rainforest, ranging from Darién National Park up to the Canal area. Its distribution extends very close to the border with Colombia. Most populations are contained within protected areas, outside which habitat loss has been extensive.  
**Assessor:** Mitré, M.  
**Refs:** 7980, 14453, 16772

**Neea ekmanii**  
Nyctaginaceae  
EN B1+2c  
Cuba  
A tree up to 5m tall confined to Hanabanilla River valley in south-central Cuba; this area is severely degraded by logging, agriculture, settlement and the construction of a river dam.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 11403, 18485, 19149

**Neisosperma brevitubus**  
Apocynaceae  
VU D2  
New Caledonia  
A species occurring in the north-east of Grand Terre.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 12630

**Neisosperma brownii**  
Apocynaceae  
EX  
French Polynesia (Marquesas Is.)  
A species originally known from Nuku Hiva.  
**Assessor:** Florence, J.  
**Refs:** 14513

**Neisosperma sevenetii**  
Apocynaceae  
EN B1+2c  
New Caledonia  
This species is known from two recorded sites, one on the summit of Mont Tiébaghi and the other from an unknown locality labelled Wagap on the east coast. Both sites are unprotected and exposed to fires and encroaching activities.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 12630

**Neisosperma thiollierei**  
Apocynaceae  
CR B1+2c  
New Caledonia  
Found only in a small area of forest on Mont Kohgi in the south-west of Grand Terre the species is unprotected and exposed to various threats, including tourist activities.  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351, 12630

**Neobalanocarpus heimii**  
Dipterocarpaceae  
VU A1c,d  
Malaysia (Peninsular Malaysia), Singapore (ex), Thailand (ex?)  
A large tree now only extant in Peninsular Malaysia. Populations in the southernmost part of Thailand and Singapore are believed to be extinct. Chengal is a valuable timber species. The export of logs has been banned. The species is found in numerous protected areas.  
**Assessor:** Chua, L.S.L.  
**Refs:** 5550, 7673, 9169, 9199, 13857, 17140

**Neoboutonia mammii**  
Euphorbiaceae  
LR/nt  
Cameroon, Equatorial Guinea, Nigeria  
The species ranges from south-east Nigeria to Equatorial Guinea. Although habitat clearance and logging have caused declines in the extent of lowland forest throughout its range, the species appears to be abundant in secondary and disturbed forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 11504, 12597
**Neocallitropsis pantheri**
Cupressaceae VU A1c, B1+2b
New Caledonia
A useful tree prone to overexploitation and confined to a few populations in southern maquis, with a single northern location on Mont Paoua. Most populations occur in areas which are officially although frequently not effectively protected. Fire is a constant threat and the population on Mont Paoua is also threatened by mining exploits.
Assessor: Jaffré, T. et al.
Refs: 9631, 12630, 14508

**Neoharmsia baronii**
Leguminosae CR B1+2abc
Madagascar
An important coastal forest species known from only two highly restricted localities in the northern tip of Madagascar near Irodo village. Its entire range is estimated to be just 10 km² (*AOO*) and only one site has been confirmed recently, on a small patch of highly specialised vegetation that is threatened by disturbance and exploitation. The site is not protected.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

**Neoharmsia madagascariensis**
Leguminosae VU D2
Madagascar
A deciduous species known only from the Bemaraha Massif and Namoroka in west Madagascar, where it occurs on exposed limestone. It is confined to this very specialised habitat, which is of little interest for agriculture or exploitation. Both areas are reserves.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

**Neohemsleya usambarensis**
Sapotaceae VU B1+2b
Tanzania
Known from the West Usambara Mountains and also sighted in the South Nguru Mountains, this species is locally common within a 200m altitudinal range in moist forest. A monotypic genus.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814, 11631

**Neolemonniera ciliandraefolia**
Sapotaceae EN B1+2c
Ghana, Liberia, Nigeria, Sierra Leone
From an unusual genus of five species, this tree is found at low densities in a few localities from Upper and Lower Guinea. In Ghana, it occurs in Atewa and also Cape Three Points and Ankasa Game Park Reserves. Much of its habitat has been lost to agriculture, mining and logging. Population numbers have been observed to decline rapidly.
Assessor: Hawthorne, W.
Refs: 8369, 12061

**Neolitsea daibuenensis**
Lauraceae EN C2a
Taiwan
A shrub to small tree, which occurs in the understory of broadleaved forest between 1100 and 1300m in Nanfengshan and Chinshuixing. The populations are small and unprotected, in areas which are susceptible to housing developments. Regeneration is poor.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 19050, 19051

**Neolitsea fischeri**
Lauraceae VU B1+2c
India (Kerala, Tamil Nadu)
Occurring from 1000m to 2500m, the species is endemic to the Anamalai and Palni Hills.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Neolitsea kedahensis**
Lauraceae LR/cd
Malaysia (Peninsular Malaysia)
Confined to Gunung Terai in Kedah, this tree is scattered in montane forest at 1000m.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Neolitsea mollissima**
Lauraceae VU D2
Malaysia (Peninsular Malaysia)
Known only from Gunong Batu Puteh in Perak, this montane forest tree is known from a single collection. The locality is within a protected forest.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Neolitsea vidalii**
Lauraceae VU A1cd
Philippines
An endemic species to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.
Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919, 4986

**Neomiramthanes cordifolia**
Myrtaceae VU B1+2accd
Brazil (Santa Catarina)
Assessor: Pires O'Brien, J.
Refs: 19097, 19098

**Neomiramthanes langsdorffii**
Myrtaceae VU B1+2accd
Brazil (Santa Catarina)
Assessor: Pires O'Brien, J.
Refs: 19097

**Neoprospeca sararensis**
Tiliaceae EN B1+2c
Colombia
A Colombian endemic, found in Cundinamarca and Norte de Santander.
Assessor: Calderon, E.
Refs: 7980, 19069

**Neostenanthera hamata**
Annonaceae VU A1c, B1+2c
Côte d'Ivoire, Ghana, Liberia, Sierra Leone
Ranging from Sierra Leone to Ghana, this species is largely confined to lowland wet evergreen forest. Loss of its habitat over the past decades has been caused by mining, logging and the establishment of commercial plantations.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061
Neostenanthera robsonii
Annonaceae  LR/nt  Gabon
Collections are known from Lopé Forest Reserve, Lastoursville and Mouma. Logging has taken place in these areas and is expected to continue over the large areas of forest which are now under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 14958, 15790

Neovietclisia sterculii
Palmae  EN A1c  Fiji
Endemic to Viti Levu, the species is reduced to a small area of secondary forest in Naitasiri Province. Over the past few decades the decline in population numbers has been rapid as the habitat has been logged and cleared for cultivation of commercial crops, such as bananas. It is the only species in the genus.
Assessor: Fuller, D.
Refs: 6053, 19118

Nephelium costatum
Sapindaceae  VU B1+2c  Malaysia (Peninsular Malaysia)
A late secondary and primary species found in the lowland open rainforest of Perak, Pahang, Selangor, Negeri Sembilan and Malacca.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Nephelium hamulatum
Sapindaceae  VU B1+2c  Malaysia (Peninsular Malaysia)
A species of lowland open and closed rainforest on sandy soils. This tree can be found in Kedah, Perak, Pahang, Selangor, Negeri Sembilan, Malacca and Johore. Some localities lie within the wildlife sanctuary in the Cameron Highlands.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Nephrosperma vanhoutteanum
Palmae  LR/nt  Seychelles
A palm tree endemic to Mahé, Silhouette, Praslin, Curieuse and Ste Anne, where it grows abundantly in lowland moist forest. Presently there is no threat to the species.
Assessor: Murugaiyan, P.
Refs: 19118

Neradua melastomifolia
Urticaceae  VU A1ce  USA (Hawaii)
A genus endemic to the Hawaiian Islands. This is the most common of the species and the only one that attains the stature of a tree. Populations are found in rainforest up to an altitude of 1160m on Kauai, Oahu, and in Olowalu and Lao Valley on Maui. A single collection was also taken from Ololuki Plateau on Molokai.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Neradua ovata
Urticaceae  CR C2a, D1  USA (Hawaii)
Originally occurring from North Kona to Kau on Hawaii, this dry forest species is now known from two populations of five and six individuals on privately owned land in Kaloko and a US Army training area at Pohakuloa. There are persistent threats from browsing and habitat damage by feral goats and sheep, and invasions of introduced plants. The species is classified as endangered on the US Federal Register.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19037

Nesiota elliptica
Rhamnaceae  EW  St Helena
A small tree, once known from localised populations on the highest parts of the eastern central ridge. It became noticeably rare in the 19th century, when the population was recorded as consisting of only 12 to 15 trees on the northern side of Diana's Peak. A single tree was discovered on a precipitous cliff near Diana's Peak but died in 1994. Of the many attempts to propagate cuttings from the tree, all but one have failed. The one cutting is now a tree of 2m high in Scotland. It is suffering from a fungal infection but has provided a limited source of seed for further propagation. In St Helena, the species was known to be pollinated by an endemic syrphid fly, which also visits other endemic trees. The genus is monotypic.
Assessor: Cronk, Q.C.B.
Refs: 11891, 19081

Nesogordonia papaverifera
Sterculiaceae  VU A1cd  Benin, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Gabon, Ghana, Liberia, Nigeria, Sierra Leone
A timber species, which grows in dense stands, commonly in areas where savanna has been replaced by forest. Regeneration is good in disturbed forest but genetic impoverishment is reported in outlying parts of the species' range. Exploitation is moderate. Sometimes large individuals are left after logging.
Assessor: African Regional Workshop
Refs: 2036, 2773, 4506, 6127, 6718, 12061, 17408

Nesohedyotis arborea
Rubiaceae  EN D1  St Helena
One of the commoner and keystone endemic trees of St Helena, with 132 adult trees growing in damp tree-fern thickets on the central ridge. The 24 subpopulations are small and clumped because of human land-use patterns. The species is dioecious, although males can set seed occasionally, and a small part of the population is currently reproductively isolated. It is pollinated by an endemic syrphid fly, which is also known to visit other endemic trees. The genus is monotypic.
Assessor: Cronk, Q.C.B.
Refs: 5556, 11891, 16700, 19081
**Neoloma nadeaudii**
Sapotaceae  
French Polynesia (Society Is.)
The genus is made up of the three poorly defined species. This represents the taxon endemic to Tahiti.
**Assessor:** Florence, J.
**Refs:** 14513

**Neoloma polyneicum**
Sapotaceae  
VU A1ce
Cook Islands, French Polynesia (Tubuai Is.,) USA (Hawaii)
Populations, which are sometimes recognised as separate varieties, have been recorded in the Tubuai Group, on Raivavae, Rurutu and Rapa, apparently on Maupke in the Cook Islands and on all the main Hawaiian Islands with the exception of Niihau and Kaho'olawe. On Raivavae and Rurutu populations are in a critical state, but on Rapa they are unthreatened. In Hawaii the species once formed a significant component of lowland dry forest. It has become rare because of habitat loss, and is now restricted to remnant patches of forest on lava flows and slopes which are less attractive for cultivation or grazing.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 434, 3372, 14513, 16551

**Neoloma st.-johnianum**
Sapotaceae  
VU D2
Pitcairn Islands
A common tree endemic to Henderson Island and co-dominant in the plateau forest with *Xyloma suaveolens*. It also occurs in scrub vegetation and on cliff slopes. The total population is estimated to number between 20,000 and 40,000 individuals and is under no threat at present. Henderson Island is a World Heritage Site.
**Assessor:** Waldren, S.
**Refs:** 12900, 13604

**Neuburgia alata**
Loganiaceae  
LR/nt
Fiji
Occurring within a restricted area of south-east Viti Levu, the species is found in dense or secondary forest up to 400m.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 5515, 18818

**Neuburgia macrocarpa**
Loganiaceae  
LR/nt
Fiji
A tree with a compact crown, occurring in dense or open forest or forest edges up to 400m. So far populations are known only from Vunou Levu at the type locality and Viti Levu.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 5515, 18818

**Neuburgia macroloba**
Loganiaceae  
EN D1
Fiji
A dense forest species, endemic to Taveuni. Small populations of about 20 plants are known from each of six sites.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 5515, 6053, 18818

**Neuburgia tubiflora**
Loganiaceae  
VU D2
Papua New Guinea
A shrub or small tree, so far known only from two collections taken in the Vogelkop District. It is reported to be common in young secondary lowland forest.
**Assessor:** World Conservation Monitoring Centre
**Refs:** 19031

**Newtonia erlangeri**
Leguminosae  
LR/nt
Kenya, Somalia, Tanzania
A tree of riverine or groundwater forest, extending into periodically flooded bushland. A few localities are known in southernmost Somalia and from the Tana River in Kenya, where it can be locally dominant. It also extends into north-east Tanzania. The habitat is reduced and degraded through overcutting. The timber of this species is used for construction work.
**Assessor:** Thulin, M.
**Refs:** 9151, 12067, 18665

**Newtonia paucijuga**
Leguminosae  
VU B1+2b
Kenya, Tanzania
Fairly common in places, e.g. Shimba Hills, this tree is restricted to pockets of moist coastal forest from south-east Kenya to south Tanzania.
**Assessor:** Lovett, J., & G.P. Clarke
**Refs:** 3356, 6396, 10961

**Nicotiana africana**
Solanaceae  
VU D1+2
Namibia
An unusual wild tobacco species confined to the Brandberg, Erongo and Spitzkuppe Mountains in northern Namibia. It occurs as a shrub or small tree of 2.5m in very arid karroid shrubland in a semi-desert-desert environment, usually in inaccessible, shady areas between huge granite boulders where there is some protection from human activities and browsing by livestock. The subpopulations are so small that any natural disaster or human impact like mining could easily wipe them out. Nothing is known about its reproductive strategy and few young plants have been seen. Cross-pollination between the isolated localities appears to be impossible, but there are no signs of any genetic decline. Research is being carried out to assess the potential of the species to improve cultivated tobacco forms. Although not used today, it may have been used as tobacco by early inhabitants.
**Assessor:** Hilton-Taylor, C. et al.
**Refs:** 689, 19218

**Normanbya normanbyi**
Palmae  
VU A1c
Australia (Queensland)
An ornamental palm tree of coastal rainforest up to 300m, restricted to north-east Queensland. This uncommon species is in decline because of land clearance. It is listed in the Nature Conservancy Act (Queensland) 1994.
**Assessor:** Dowd, J.L.
**Refs:** 19118

**Northea hornei**
Sapotaceae  
VU D2
Seychelles
A common component of forest areas on Mahé, Praslin,
Silhouette, Curieuse and Felicite Islands. It occurs in Morne Seychelloise National Park and seedlings are being used in a reforestation programme. The timber is of high quality and diverse use. The main threat to populations comes from the pervasive spread of introduced plants. The genus is monotypic.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9859, 16212, 17229, 19023

**Notholachma crassifolia**  
Rubiaceae EN B1+2c  
India (Kerala, Tamil Nadu)  
A small tree of submontane forest, known only from a few collections and field records in the Anamalai Hills and an imprecisely recorded location in the Agasthyamalai Hills.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Nothaphoebe condensa**  
Lauraceae VU B1+2c  
Malaysia (Peninsular Malaysia)  
Endemic to Langkawi Island, this species is known only from a single collection found in lowland seasonal forest. Langkawi Island is being rapidly developed as a tourist resort.  
**Assessor:** Kochummen, K.M.  
**Refs:** 8464, 19073

**Nothaphoebe javonica**  
Lauraceae CR C2b, D1  
Indonesia (Java)  
A species known from a single specimen, collected from Mount Payung in Ujung Kulon National Park. It is not known whether the species is now extinct.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9078

**Nothaphoebe pahangensis**  
Lauraceae LR/cd  
Malaysia (Peninsular Malaysia)  
A montane forest species confined to the Cameron Highlands in Pahang. Mountain forests are protected forests in Peninsular Malaysia.  
**Assessor:** Kochummen, K.M.  
**Refs:** 8464, 19073

**Nothocestrum breviflorum**  
Solanaceae CR C2a, D1  
USA (Hawaii)  
A stout tree which occurs only rarely, generally confined to dry forest up to an altitude of 1830m in the southern part of the Kohala Mountains, the northern slopes of Hualalai and Mauna Loa on Hawaii. Fewer than 50 individuals remain in six populations. Habitat conversion for residential and recreational purposes, the invasion of introduced plants, fire and grazing have all contributed to the decline in the species. It is protected by the US Endangered Species Act. The genus consists of four species, all endemic to the Hawaiian Islands.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372, 19039

**Nothocestrum latifolium**  
Solanaceae EN C2a  
USA (Hawaii)  
This small tree occurs in various forest types between 460 and 1530m on Kauai, Oahu, Molokai, Lanai and Maui. The genus consists of four species, all endemic to the Hawaiian Islands.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372

**Nothocestrum longifolium**  
Solanaceae LR/nt  
USA (Hawaii)  
A small tree or shrub, the commonest in the genus, occurring in rainforest up to 1620m on all the main islands except Niihau and Kahoolawe. The genus consists of four species, all endemic to the Hawaiian Islands.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372

**Nothocestrum pellatum**  
Solanaceae CR C2a, D1  
USA (Hawaii)  
A species of montane rainforest endemic to Kauai, where it is known from seven populations located at Kalalau Lookout, Awaawapuhi and Makaha Valleys, Nualolo, Kawaiulu and Waimea Canyon. The number of individuals has declined to about 23 in total, largely because of the impact of invasive plants, feral goats, pigs, deer and jungle fowl. It is protected by the US Endangered Species Act. The genus consists of four species all endemic to the Hawaiian Islands.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3372, 19038

**Nothofagus alessandri**  
Fagaceae EN A1cde, B2cd  
Chile (Maule)  
Endemic to Maule region, the species was once more widespread but is now restricted to eight scattered localities in a small area of deciduous forest in the Coastal Cordillera. These stands all represent secondary growth from stump sprouts and between 1983 and 1991 their extent of occurrence was reduced by almost 60% as a result of the establishment of plantations of Pinus radiata. About 13% of the species range is covered by protected areas. It is recognised as a very primitive member of the genus.  
**Assessor:** González, M.  
**Refs:** 4893, 11147, 16328, 19153

**Nothofagus alpina**  
Fagaceae LR/nt  
Argentina (Neuquén), Chile (Bíobío, Maule)  
The species occurs in moist seasonal forest up to 1900m in both the Coastal Cordillera and Andes in Chile, extending into Argentina. Most of the lower elevation forest has been logged and converted to agriculture, especially in the northern part of the range, and also to Pinus radiata plantations. There are still extensive areas of intact forest. The species is little represented in Chilean protected areas.  
**Assessor:** González, M.  
**Refs:** 331, 5112, 16328

**Nothofagus baumanniae**  
Fagaceae LR/cd  
New Caledonia  
This species is a dominant component of stunted cloud forest on ultramafic soils, restricted to three mountain peaks. The species' range is not believed to have been
any more extensive in the past. It is effectively protected within Rivière Bleue National Park.
Assessor: Jaffré, T. et al.
Refs: 5300, 10351

**Nothofagus discoides**
Fagaceae VU D2
New Caledonia
This species is confined to a few small populations on ultramafic soils in the lowlands of the far south.
Assessor: Jaffré, T. et al.
Refs: 5300, 10351

**Nothofagus glauca**
Fagaceae VU A1cd, B1+2c
Chile (Biobío, Maule, O'Higgins, Santiago, Valparaiso)
The species is endemic to central Chile, occurring on thin or rocky soils up to 1500m in both the Coastal Cordillera and the Andes. Almost all the pure stands in the coastal range, known as Maule forest, have been logged and converted into *Pinus radiata* plantations. The Andean populations are presently under conversion. Since 1985 the woodchip industry has increased the demand for timber. Regeneration in old growth stands is very good. The species is rarely contained within protected areas.
Assessor: González, M.
Refs: 4893, 11147, 16328, 19153

**Nothofagus x leonii**
Fagaceae EN A1cd, B2c
Chile
A hybrid between *N. obliqua* and *N. glauca*. It is found only in areas where the two parent species meet in the Coastal Cordillera and the Andes in Chile. Its occurrence in protected areas is rare and most areas have experienced logging and clearing.
Assessor: González, M.
Refs: 4893, 11147, 16328

**Nothofagus nuda**
Fagaceae CR D1
Papua New Guinea
A tree known from a single collection found in mixed lower montane forest near the Tauri River in the Gulf Province, which is outside the general range of *Nothofagus* in New Guinea. A future taxonomic revision may change the status of this species.
Assessor: Eddowes, P.J.
Refs: 5300, 19114

**Nothofagus stylosa**
Fagaceae VU D2
Indonesia (Irian Jaya)
A species known from a single locality in the central mountain range of Irian Jaya.
Assessor: World Conservation Monitoring Centre
Refs: 5300, 7154

**Nothofagus womersleyi**
Fagaceae EN B1+2c
Indonesia (Irian Jaya)
A locally common species, restricted to a single locality of primary rainforest on Bukit Irau in the Kebar Valley of the Vogelkop Peninsula. Its restricted occurrence and narrow genetic base place the species in a precarious state.
Assessor: Eddowes, P.J.
Refs: 5300, 19114

**Nothopegia aureo-fulva**
Anacardiaceae CR B1+2c
India (Tamil Nadu)
Recorded only from the Tirunelveli Hills, this small tree has not been found this century despite botanical surveys of the area. Various developments have encroached upon and degraded the forest but there is still a possibility that the species may be rediscovered.
Assessor: World Conservation Monitoring Centre
Refs: 14276, 19144

**Nothopegia beddomei var. wynaadica**
Anacardiaceae EN B1+2c
India (Kerala)
This taxon is poorly recorded, known only from a single site of submontane forest in Wynaad near the border with Karnataka.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Nothopegia castanoefolia**
Anacardiaceae CR B1+2c
India (Maharashtra)
A poorly known tree from an imprecisely recorded locality on the border between Karnataka and Maharashtra.
Assessor: World Conservation Monitoring Centre
Refs: 7147, 19144

**Nothopegia heyneana**
Anacardiaceae LR/nt
India (Karnataka, Kerala, Orissa, Tamil Nadu)
A widely but sparsely scattered species, occurring in areas of low- to medium-altitude forest in the Western Ghats.
Assessor: World Conservation Monitoring Centre
Refs: 7147, 19144

**Nothospandias staudtii**
Simaroubaceae VU B1+2c
Cameroon, Côte d'Ivoire, Gabon, Ghana, Nigeria
Extending from Côte d'Ivoire to Gabon, the species is relatively widespread but rare within a rapidly declining habitat. It occurs in semi-deciduous forest, which has been heavily logged everywhere. It is the sole member of the genus.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061, 12590

**Nothotsuga longibracteata**
Pinaceae EN A1c
China (Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi)
Although the species is widespread, it appears to be very rare and poorly collected. Deforestation is a threat in most of its range.
Assessor: SSC Conifer Specialist Group
Refs: 374, 1818, 11242, 13041, 18751

**Notospartium carmichaeliae**
Leguminosae LR/nt
New Zealand (South Is.)
A small tree, known only from Marlborough, where it occurs in valleys between the Wairau and Awatere Rivers. The genus consists of three species, endemic to New Zealand.
Assessor: de Lange, P.J.
Refs: 902, 17637, 19133
**Notospartium glabrescens**
Leguminosae  LR/nt
New Zealand (South Is.)
A small tree, confined to Marlborough, where it is found between Awatere and Kowhai Rivers. The genus consists of three species endemic to New Zealand.
Assessor: de Lange, P.J.
Refs: 19133

**Notospartium torulosum**
Leguminosae  LR/nt
New Zealand (South Is.)
Confined to Canterbury, this small tree is found in one main population near Peel forest and a few smaller populations, occurring on steep rocky slopes in riparian scrub or on forest margins. An increase in farming has caused a retraction of the species'. The total population consists of a few hundred individuals. Reproduction is sufficient in the main population. The genus consists of three species endemic to New Zealand.
Assessor: de Lange, P.J.
Refs: 17637, 19133

**Nouelia insignis**
Compositae  LR/nt
China (Sichuan, Yunnan)
Shrubs or small trees are found singly or in small clumps, restricted largely to the lower reaches of the Anning and Yanglong Rivers and Jinsha River Valley between 900m and 2800m. The main threat comes from firewood collection, but populations frequently occur in inaccessible places in rock crevices and on steep cliffs.
Assessor: World Conservation Monitoring Centre
Refs: 18118, 11847

**Nuxia glomerulata**
Buddlejaceae  LR/nt
South Africa (Guateng, North-West Province)
A straggling shrub or small tree which occurs on ridges and hills between Pretoria and Zeerust in mixed savanna. There may have been some decline in numbers and the extent of occurrence because of agricultural activities and other developments. Its restricted distribution also renders it vulnerable to any future developments in the area. It occurs in a privately owned nature reserve and a local authority reserve.
Refs: 689, 19218

**Nyssa yunnanensis**
Cornaceae  CR B1+2c, C2a
China (Yunnan)
A species known from a small population restricted to Jinghong County in the region of Xishuangbanna. It occurs infrequently as a component of the upper canopy of monsoon forest between 540 and 850m. Logging has contributed significantly to the decline in the extent of the species' range. The area is now under protection.
Assessor: Sun, W.
Refs: 1818, 11847, 19055

**Ochanchostachys amentacea**
Olacaceae  DD
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Singapore
A monotypic genus found scattered in the understorey, occasionally reaching the canopy, of primary and secondary lowland rainforest, often mixed dipterocarp forest. Natural regeneration is sparse and scattered, but it can be good under favourable conditions. The tree is slow-growing; taking about 150 years to reach a diameter of 50 cm. The petaling timber is too scarce to be of commercial importance. However, it is often traded with other medium and hard woods in mixed consignments. The wood is used for house posts and heavy construction.
Assessor: Asian Regional Workshop
Refs: 5550, 9199, 9328, 11145, 12937, 17140, 19017

**Ochna augustata**
Ochnaceae  DD
Mozambique
A species confined to central coastal areas of Mozambique. More fieldwork is required to consolidate the status of the population.
Assessor: Bandeira, S.
Refs: 5117, 18965

**Ochna beirensis**
Ochnaceae  DD
Mozambique
Along with O. augustata, this species is confined to the central coastal area of Mozambique. More fieldwork is required to consolidate the status of the species.
Assessor: Bandeira, S.
Refs: 5117, 18965

**Ochna rufescens**
Ochnaceae  CR B1+2cd
Sri Lanka
A tree restricted to lowland rainforest in south-west Sri Lanka. This species was previously found in Kottawa and Kannelliya Forest Reserves. However, it was not again found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct.
Assessor: World Conservation Monitoring Centre
Refs: 17195, 19112

**Ochreinauclea missionis**
Rubiacaeae  VU B1+2c
India (Kerala)
Endemic to the Western Ghats in Kerala, the species occurs in scattered pockets of evergreen forest along stream sides. It is believed to have been wiped out from several locations where there has been logging, clearing for commercial agriculture or other projects. The bark has medicinal value and the leaves are fed to livestock.
The genus is monotypic.
Assessor: CAMP Workshops on Medicinal Plants in India
Refs: 561, 4799, 19144

**Ochrosia borbonica**
Apocynaceae  EN A1c+2ce
Mauritius, Reunion
Less than 50 individuals are known on Mauritius. The species is also rare and scattered in forest on Reunion. More information may indicate Critically Endangered is a more appropriate category.
Assessor: Strahm, W.
Refs: 9120, 12470, 16426, 19208
Ochrosia fatuhivensis
Apocynaceae
French Polynesia (Marquesas Is.)
The species has been recorded only from Fatu Hiva.
Assessor: Florence, J.
Refs: 14513

Ochrosia grandiflora
Apocynaceae VU B1+2c
New Caledonia
Occurring in lowland gallery forest on schist or calcareous substrates, the species is known from four main localities in the regions of Koumac, Néavin and Col d’Amien, and also on the Ile de Pins. All sites are unprotected and exposed to threats, such as fire and agricultural encroachment.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Ochrosia haleakalae
Apocynaceae EN C2a
USA (Hawaii)
A tree scattered in dry to moist forest, often on lava, between 700 and 1200m on East Maui. Two collections have also been made, from Pololu Valley and Kalopa Gulch on Hawaii. It is reported to be in cultivation on Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 15251

Ochrosia kauaensis
Apocynaceae EN C2a
USA (Hawaii)
This tree is uncommon and confined to Kauai Island, where it is found in lowland moist forest up to 350m on the Nāpali coast and on the slopes of Mount Kahili.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Ochrosia kilaeueensis
Apocynaceae CR B1+2c, C2b, D1
USA (Hawaii)
Originally collected only from Puuwaawaa and Kipuka Puaulu on Hawaii, the species has not been recorded since the 1940s. It is possible that a population remains in the former site but recent surveys in the latter failed to uncover any remnant of a population. The montane rainforest habitat has been degraded by introduced plants, goats and fire. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19039

Ochrosia nukuhivensis
Apocynaceae EX
French Polynesia (Marquesas Is.)
The species has been recorded only from Nuku Hiva.
Assessor: Florence, J.
Refs: 14513

Ochrosia tahitensis
Apocynaceae EX
French Polynesia (Society Is.)
The species has been recorded only from Tahiti.
Assessor: Florence, J.
Refs: 14513

Ochrothallus blanchoii
Sapotaceae EN B1+2c
New Caledonia
The genus is now included in Niemeyeria.
Assessor: Jaffré, T. et al.
Refs: 10351

Ochrothallus franzei
Sapotaceae VU B1+2c
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Ocotea argylei
Laureaceae VU D2
Kenya
The species is possibly synonymous with O. kenyaensis. It is endemic to areas of moist forest above 2200m at Posta Hill, Mau.
Assessor: Varty, N.
Refs: 8815, 16123

Ocotea basicordatifolia
Laureaceae EN B1+2c
Brazil (São Paulo)
This species is confined to a restricted area of Atlantic forest on the Serra de Paranapiacaba in Santo André. There is a biological reserve here within the Serra do Mar State Park. However, it is under serious threat from uncontrolled industrial pollution. The species is included in the official list compiled by *IBAMA of threatened Brazilian plants.
Assessor: Varty, N.
Refs: 8815, 16123

Ocotea benthamiana
Laureaceae VU B1+2c
Ecuador
An endemic tree of Ecuador, inhabiting montane cloud forest, between 2000 and 3000m in the High Andes.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Ocotea catharinensis
Laureaceae VU A1cd
Brazil (Paraná, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, São Paulo)
Formerly abundant, this slow-growing species has become rare because of the levels of exploitation of its timber. Essential oil is also harvested from the bark for the perfume industry. Its habitat also continues to decline, although several localities are protected within state parks and biological reserves. The species is included in the official list compiled by *IBAMA of threatened Brazilian plants. There is also a suggestion that populations exist in Misiones in Argentina and in Paraguay.
Assessor: Varty, N. & D.L. Guadagnin
Refs: 8815, 15539, 16123

Ocotea clarkii
Laureaceae LR/cd
Mexico (Chiapas)
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 8553

Species Summaries

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Refs: 8553

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**Ocotea foetens**
Lauraceae
Portugal (Madeira), Spain (Canary Is.)
One of the major components of *laurisilva*. Populations in both island groups are scattered and fragmented as a result of past habitat loss and timber exploitation. The most serious threat in the present day is fire. The population in the Canary Islands has not been properly censored but probably contains fewer than 10,000 individuals in total. It is listed in government legislation of 1991. In Madeira it is possible that population numbers are increasing with the expansion of laurisilva.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 1512, 19022, 19131

**Ocotea gabonensis**
Lauraceae
LR/nt
Gabon
A Gabon endemic, so far found at Lopé Forest Reserve and near Lastoursville. The habitat is degraded where logging has taken place. The species may be more widespread, given that Gabon’s forests are relatively unexplored. These areas, however, are now largely under concession to logging companies.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 14958, 15790

**Ocotea glaucescens**
Lauraceae
LR/nt
Costa Rica, Panama
Occurring in montane forest, this species is found only in the Cordillera de Talamanca in Costa Rica and in the Chiriquí Highlands in Panama, where it is fairly abundant.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 8381, 12587

**Ocotea harrisii**
Lauraceae
CR B1+2c
Jamaica
A species known only from the type locality in Peckham Woods. Much of the area is degraded by cutting and lower slopes are planted with *Pinus caribaea*.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 401, 5653, 7980

**Ocotea jorge-escobarri**
Lauraceae
EN C2a
Honduras, Nicaragua
A species of mixed dry forest, occurring at middle elevations.
*Assessor:* Nelson, C.
*Refs:* 1080, 6703, 7534

**Ocotea kenynesis**
Lauraceae
VU A1cd
Democratic Republic of Congo, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, South Africa (Eastern Cape, KwaZulu-Natal, Mpumalanga, Northern Province), Sudan, Swaziland, Tanzania, Uganda, Zimbabwe
A timber species found in areas of moist forest in East and South Africa extending into Central Africa. In some areas the populations are very small, e.g. the Zimbabwean population consists of four immature individuals. The populations in South Africa are all contained within protected areas, but usually comprise of only isolated individuals or small groups of trees. It yields a superior hardwood which is heavily exploited through most of its range.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 689, 2361, 6396, 6725, 10536, 10961, 16021, 19218

**Ocotea langsdorffii**
Lauraceae
VU A1cd
Brazil (Minas Gerais)
This species occurs in low densities in a restricted area of *campo rupestre* in the Serra do Cipó. Trees are indiscriminately cut for timber resources, at levels of exploitation that are unsustainable. Laws to set up the Serra do Cipó State Botanical Park and to protect the species are not yet well established. This species is included on the official list of threatened Brazilian plants compiled by *IBAMA*.
*Assessor:* Varty, N.
*Refs:* 7144, 8815, 16123

**Ocotea ouzczensis**
Lauraceae
VU D2
Peru
A cloud forest species, which is known only from the type collection from the department of La Libertad.
*Assessor:* World Conservation Monitoring Centre
*Refs:* 1984

**Ocotea porosa**
Lauraceae
VU A1cd
Argentina? (Misiones?), Brazil (Paraná, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, São Paulo), Paraguay?
One of the dominant species of *Araucaria* forest, also occurring in various other habitat types. The largest populations occur in south Paraná and north Santa Catarina, where the species occurs in almost pure stands. Although present in large numbers, the species is slow-growing and declining in numbers through timber exploitation. In rates of extraction, the species is second only to Paraná pine. Several localities are protected and the species occurs on the official list of threatened Brazilian plants compiled by *IBAMA*. Suggestions that populations exist in Argentina and Paraguay need verification.
*Assessor:* Varty, N. & D.L. Guadagnin
*Refs:* 4506, 8815, 14355, 15539, 16123, 19179

**Ocotea pretiosa**
Lauraceae
VU A1cd
Argentina? (Misiones?), Brazil (Bahia, Minas Gerais, Paraná, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, São Paulo), Paraguay?
Commonly known under the name of *O. odorifera*, the species is an important source of timber and essential oil. The species’ distribution is discontinuous, occurring in coastal forests which continue to be cleared despite legislative measures, and also in small woods and forest formations on the southern Brazilian plateau. There is also some indication that it may be found in Misiones in Argentina and also Paraguay. Exploitation of the species as a source of sassafras oil has been uncontrolled but largely confined to Santa Catarina, which is the only area to contain trees with sufficiently high safrole content. Remaining stands are no longer capable of sustaining high levels of utilization and no replanting has taken place. Natural sources of safrole are still the preferred source and it is likely that the market will turn
to alternative plant species to replace O. pretiosa. The species is included in the official list of threatened Brazilian plants compiled by *IBAMA.*

**Ocotea raimondii**

Lauraceae VU D2

Peru

Known only from the type collection, the species occurs in the department of Cajamarca.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1984

**Ocotea rivalaris**

Lauraceae VU D2

Costa Rica

A lowland rainforest species, known from the type locality near Esquinas, where it was once said to be common, and also from Rincón.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 12587, 14311

**Ocotea robertsoniae**

Lauraceae VU B1+2c

Jamaica

The species is found in St Ann, St Elizabeth and Clarendon Parishes in areas of woodland on limestone.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 6057, 7980

**Ocotea rotundata**

Lauraceae VU B1+2c

Ecuador

A tree, growing up to 8m, endemic to the High Andes of Ecuador. It inhabits cloud forest between 2640 and 3200m in Loja and Zamora-Chinchipe Provinces.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 19119

**Ocotea staminoides**

Lauraceae EN B1+2c

Jamaica

An uncommon species found only in St Ann Parish.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 401, 5653, 7980

**Ocotea xupanapana**

Lauraceae VU A1c, B1+2c

Mexico (Veracruz)

A common tree of riparian forest in the regions of Uxpanapa and Los Tuxtlas. Half of the forest in Uxpanapa has disappeared through resettlement projects in the 1970s. The forests of Los Tuxtlas are rapidly disappearing and are considered to be extremely threatened.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 5651, 5993, 7980

**Ocotea viridisflora**

Lauraceae VU D2

Costa Rica?, Panama

Confined to the Chiriqui Highlands in cloud forest, this species is poorly understood. Undetermined specimens from Costa Rica may also represent this taxon.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7144, 7980, 13228

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**Octoknema orientalis**

Olacaceae VU B1+2b

Tanzania

This species is restricted to moist evergreen forest between 1000 and 1200m in the South Nguru Mountains, North Udzungwa Mountains and Mahenge.

**Assessor:** Lovett, J. & G.P. Clarke

**Refs:** 3356, 5204, 10961, 11631

**Oenocarpus circumtextus**

Palmae VU B1+2c

Colombia

This endemic Colombian palm is found in lowland scrub in Amazonas, often in white sand areas or on rocky outcrops. The species is restricted to two remote localities, where few pressures are evident.

**Assessor:** Bernal, R.

**Refs:** 19118

**Oenocarpus makeru**

Palmae DD

Colombia

A palm of lowland rainforest, bordering areas of white sand. The species is known only from one location in a remote area of north-western Amazonia.

**Assessor:** Bernal, R.

**Refs:** 19118

**Oenocarpus simplex**

Palmae DD

Colombia

An understory species of lowland rainforest, known only from an undisturbed remote area in the north-west Amazon.

**Assessor:** Bernal, R.

**Refs:** 19118

**Olax psittacorum**

Olacaceae CR C2a

Mauritius, Réunion

In Mauritius occurrences are known in seasonal forest in Simonet and Morne Seche. Around 50 individuals have been counted and regeneration is observed to be occasional. Information on the Réunion population is required. The fruits of the tree are believed to be a food for a rare endemic parrot.

**Assessor:** Page, W.

**Refs:** 1411, 9120, 12470, 16426, 19199

**Oldenburgia grandis**

Compositae LR/nt

South Africa (Eastern Cape)

A shrub or small tree of potential ornamental interest, found along the Suurberg inland from Port Elizabeth to the mountains around Grahamstown. The species always occurs on outcrops of quartzite in grassy *fynbos.* Its extent of occurrence is only about 500 km². Although there are threats from invasive alien species, especially *wattles,* and agricultural activities in places, there is no evidence of population declines. Most of the subpopulations occur on privately owned farms. Some plants are found in a national park and a few provincial and private nature reserves.

**Assessor:** Hilton-Taylor, C. *et al.*

**Refs:** 689, 19218
Olea chanimanini
Oleaceae VU D2
Mozambique, Zimbabwe
A species known only from the Chanimanini Mountains on the Zimbabwe-Mozambique border. It occurs fairly commonly on quartzite soils within a well-protected area of 600 km².
Assessor: World Conservation Monitoring Centre
Refs: 18965

Olea europaea ssp. cerasiformis
Oleaceae LR/nt
Portugal (Madeira), Spain (Canary Is.)
This taxon now includes subspecies from both the Canary Islands and Madeira, the latter previously being known as ssp. maderensis. It is relatively abundant at low and medium elevation in dry woodland on most Canary Islands, on the south coast and some areas of north Madeira and on Desertas and Porto Santo Islands, where it is rare. The species is covered in regional legislation and occurs in protected areas, but the habitat continues to experience general degradation and declines through increasing house-building, fires and invasive species.
Assessor: World Conservation Monitoring Centre
Refs: 6729, 19022, 19131

Olearia angulata
Compositae DD
New Zealand (North Is.)
The taxonomic status of this species is dubious.
Assessor: World Conservation Monitoring Centre
Refs: 902, 9800, 19134

Olearia chathamica
Compositae LR/nt
New Zealand (Chatham Is.)
The coastal forests of the Chatham Islands were once dominated by this small tree. The comprehensive destruction of the forest type has reduced populations to scrubland on exposed cliffs, largely confined to the south shore of Chatham Island, and on Pitt and South East Islands.
Assessor: de Lange, P.J.
Refs: 902, 19133, 19134

Olearia fragrantissima
Compositae LR/nt
New Zealand (South Is.)
Occurring in lowland forest and scrub in the east of South Island, this small tree appears to be common in most areas but is showing little regeneration. In the southern parts of its range it occurs on high-fertility soils, which are highly sought-after by agriculturists and colonised by aggressive pasture grass.
Assessor: de Lange, P.J.
Refs: 902, 9800, 19133, 19134

Olearia hectorii
Compositae EN C2a
New Zealand (North Is., South Is.)
Approximately 1000 individuals remain of this small tree, occurring in isolated populations in forest and scrub on fertile soils. Regeneration is almost absent.
Assessor: de Lange, P.J.
Refs: 902, 9800, 19133, 19134

Olearia polia
Compositae EN C2b
New Zealand (South Is.)
A tree restricted to a population of about 500 trees in lowland beech forest in Nelson.
Assessor: World Conservation Monitoring Centre
Refs: 902, 9800

Olearia traversii
Compositae LR/nt
New Zealand (Chatham Is.)
Once one of the major components of forest on the Chatham Islands. Complete destruction of the forest type has led to the species becoming rare and largely confined to paddocks. There is evidence of some regeneration.
Assessor: de Lange, P.J.
Refs: 902, 5563, 19133, 19134

Omalanthus stokesii
Euphorbiaceae LR/nt
French Polynesia (Tubuai Is.)
An endemic to Rapa.
Assessor: Florence, J.
Refs: 14513

Oncosperma fasciculatum
Palmaceae LR/nt
Sri Lanka
A palm tree of the wet lowlands, endemic to Sri Lanka.
Assessor: Johnson, D.
Refs: 19118

Oncosperma platyphyllum
Palmaceae VU A1c
Philippines
A species of primary forest at low to medium elevations, confined to the island of Negros.
Assessor: Madulid, D.
Refs: 19118

Ophrypetalum odoratum ssp. longipedicellatum
Annonaceae EN B1+2d, C2b, D1
Tanzania
An endemic to the Kimboza Forest Reserve, which covers 4 km² of moist coastal forest on limestone. The surrounding area is densely populated and there is a strong demand for land for cultivation. Two forest guards are employed by the Tanzanian Catchment Forest Project to prevent illegal activities or encroachment. The type subspecies is the only other member of the genus and is similarly restricted.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5204, 9302

Ophrypetalum odoratum ssp. odoratum
Annonaceae VU B1+2b
Kenya, Tanzania
Ranging more widely than ssp. longipedicellatum, this small tree is often locally dominant within pockets of dry coastal forest, often on coral. Populations are known from Diani, Jadini and Vipingo in south-east Kenya as well as further south in eastern Tanzania. The genus is monotypic.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 8814
Orania decipiens
Palmae
Philippines
A primary forest species, endemic to Mindoro.
Assessor: Madulid, D.
Refs: 19118

Orania longisquama
Palmae
LR/nt
Madagascar
A rare palm endemic to Madagascar, known only in the north-west and east. This species inhabits lowland and submontane rainforest between 40 and 550m.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 19118

Orania ravaka
Palmae
VU B1+2c
Madagascar
This Madagascan endemic is known only from lowland rainforest at three sites in the north-east. The total population is estimated to consist of 500 individuals.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Orania sylvicola
Palmae
LR/nt
Indonesia (Java, Sumatra), Malaysia (Peninsular Malaysia, Sarawak), Singapore (ex)
This palm tree is confined to coastal rainforest up to 200m. The population in West Java has been reduced to fewer than 200 individuals in a single locality. The species is extinct in Singapore.
Assessor: Johnson, D.
Refs: 9199, 19118

Orania trisptha
Palmae
CR A1cd
Madagascar
Fewer than 50 individuals are known from three locations of lowland rainforest, all of which are under threat of destruction.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Oreomunnea pterocarpa
Juglandaceae
EN C2a
Costa Rica, Mexico, Panama
Although previously considered to be a Costa Rican endemic, it appears the species is also recorded in Mexico and Chiriqui in Panama and hence could be distributed throughout Central America. It is sparse in occurrence, usually found as isolated individuals in areas of moist and wet evergreen forest. Little is known of the regenerative capacity of the species, although it does not appear to be strong. The timber is not heavily exploited, although it is traded to some extent domestically. The species is listed in Appendix II of *CITES.*
Assessor: Americas Regional Workshop
Refs: 7980, 14487, 14717, 19179, 19185, 19186

Oreopanax arcuatus
Araliaceae
VU A1c
Guatemala, Mexico (Chiapas)
Occurring in montane forest in oak and mesophyllous formations, the species is found in the Chiapas Highlands in Mexico, between 2000 and 2300m, and in mountainous parts of Guatemala. The population in Mexico is considered endangered.
Assessor: World Conservation Monitoring Centre
Refs: 4974, 19161

Oreopanax candamoanus
Araliaceae
VU D2
Peru
Known only from the type collection, this species occurs in forest between roughly 2000 and 3500m in the department of Cajamarca.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Oreopanax cissoides
Araliaceae
VU D2
Peru
Recorded only from the type collection, the species occurs in forest above 2500m in the department of Cajamarca.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Oreopanax echinops
Araliaceae
VU A1c
Guatemala, Honduras, Mexico
A species of oak forest occurring at medium elevations. Its distribution extends from Sierra Madre in Chiapas, Mexico to Honduras.
Assessor: World Conservation Monitoring Centre
Refs: 19161

Oreopanax ischnolobus
Araliaceae
VU D2
Peru
A species of forest above 2500m, known only from the type collection from the department of Junin.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Oreopanax jelskii
Araliaceae
VU D2
Peru
Recorded only from the type collection, the species occurs in forest above 2500m in Cajamarca.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Oreopanax klugii
Araliaceae
DD
Peru
A lowland forest species which is recorded only from the department of Loreto. There are doubts over its taxonomic status and it is not included in the Flora of Peru
Assessor: World Conservation Monitoring Centre
Refs: 1984

Oreopanax lempiranus
Araliaceae
CR C2b
Honduras
Endemic to Honduras, the species is, so far, known only from an area of wet montane forest in Celaque National Park.
Assessor: Nelson, C.
Refs: 2935, 10147
Oreopanax oerstediana  
Araliaceae  
VU C2a  
Costa Rica, Panama  
A species of cloud forest, occurring between 1000 and 2500m in small, restricted populations. Despite the entire range coinciding with protected areas, there are increasing threats of habitat logging and clearance.  
**Assessor:** Mitré, M.  
**Refs:** 7272, 14487, 15037, 16772

Oreopanax pellatus  
Araliaceae  
VU A1c  
Guatemala, Mexico  
Occurring from the Gulf region of Mexico to Guatemala, the species is found in areas of moist seasonal forest from medium to high elevations.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5993, 19161

Oreopanax raimondii  
Araliaceae  
VU D2  
Peru  
Recorded only from the type collection, the species occurs in forest above 2500m in the department of La Libertad.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

Oreopanax sanderianus  
Araliaceae  
VU A1c  
Guatemala, Honduras, Mexico  
A scarce species of pine-oak forest and mesophyllous montane forest.  
**Assessor:** Ramirez-Marcial, N. & M. González-Espinosa  
**Refs:** 19161

Oreopanax stenophyllus  
Araliaceae  
VU B1+2c  
Peru  
This cloud forest species occurs in forest between 3000 and 3500m, in the departments of Cuzco and Puno.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

Oricia suaveolens  
Rutaceae  
LR/nt  
Côte d'Ivoire, Democratic Republic of Congo, Ghana, Guinea, Nigeria, Sierra Leone  
Widely occurring from Sierra Leone to DR Congo, this species is confined to the more restricted wetter evergreen forests, which in certain areas have been heavily logged and destroyed by oil exploration, mining and commercial forestry operations.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2773, 8369, 11504, 12061

Oricia trifoliolata  
Rutaceae  
VU B1+2c  
Cameroon  
A small forest tree confined to Korup National Park and the Mount Cameroon area. It is sparsely scattered and the habitat is declining through logging and the expansion of areas under cultivation.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 12597

Oricopsis glaberrima  
Rutaceae  
Cameroon  
Endemic to Cameroon, this small understory tree occurs locally in some abundance in lowland swamp forest at Bertona, Doume, Lomie, Akonolinga and Sangmelima. The habitat is being lost to agricultural development in places.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 12597

Ormocarpopsis aspera  
Leguminosae  
LR/nt  
Madagascar  
Widespread in central and west Madagascar, this lowland or submontane woodland species is uncommon and the remaining native vegetation is very fragmented and continuing to decline.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353

Ormocarpopsis calicicola  
Leguminosae  
EN B1+2abc  
Madagascar  
A deciduous woodland species restricted to limestone outcrops in the Ankara Plateau of west Madagascar. Although it occurs within the protected Namoroka Reserve its range is restricted to an estimated 400 km² (*AOO*) and areas outside the reserve are declining. It may now be restricted to a single locality within the reserve.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353

Ormocarpopsis iremoensis  
Leguminosae  
CR B1+2abc  
Madagascar  
A sclerophyllous woodland species that is known only from the small marble outcrops to the south of Amatofinandrahana on the eastern margin of the Iremo Massif in central Madagascar. These areas are being actively mined for marble and the forest remnants are also being rapidly degraded. Its range is estimated to be less than 10 km² (*AOO*). No protection exists in this area.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353

Ormocarpopsis mandrarensis  
Leguminosae  
VU B1+2abc  
Madagascar  
Known from only two localities, this deciduous woodland species occurs in the upper Mandrare River basin and Ihosy River valley of south-central Madagascar. Its range is restricted to an estimated 1500 km² (*AOO*), where the vegetation is highly fragmented and decreasing.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353

Ormocarpopsis parvifolia  
Leguminosae  
VU B1+2abc  
Madagascar  
A xerophytic scrub and woodland species confined to a small area of south and south-east Madagascar. Its range is estimated to be 15,000 km² (*EOO*) and includes
Andohahela Reserve (Parcelle 2). All vegetation in this area is fragmented and declining.

**Assessor:** Du Puy, D. & H. Labat
**Refs:** 12353

**Ormocarpopsis tulearensis**

*Leguminosae* EN B1+2abc

Madagascar

This scrubland species is confined to the Mahafaly Plateau between the Manombo River and Itambino Corridor, with an estimated range of 5000 km² (+EOO). The vegetation is fragmented, often disturbed and declining as a result of felling for charcoal and grazing.

**Assessor:** Du Puy, D. & H. Labat
**Refs:** 12353

**Ormocarpum caeruleum**

*Leguminosae* VU D2

Yemen (SoCoTr)

A small tree or shrub which is relatively common in lowland and submontane woodland. It is an important cattle browse.

**Assessor:** Miller, A.G.
**Refs:** 19083

**Ormocarpum dhofarensense**

*Leguminosae* VU B1+2c

Oman, Yemen

A regional endemic from a small area of escarpment woodlands in Dhofar, Oman, and neighbouring Mahra, southern Yemen. Since 1975 the area in Oman has seen an influx of people and their livestock. There has been a subsequent rapid increase in the cutting of wood and grazing. Trees are also browsed by livestock.

**Assessor:** Ghazanfar, S.A.
**Refs:** 16380, 17281

**Ormocarpum sennodes ssp. zanzibaricum**

*Leguminosae* VU B1+2b

Kenya, Tanzania

A small tree found only in areas of dry coastal forest from the vicinity of the Shimba Hills in south-east Kenya, through eastern Tanzania to Zanzibar Island.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 6396, 8814

**Ormosia cruenta**

*Leguminosae* DD

Panama

Collected only twice from the provinces of Chiriqui and Cocle, the species and its status are very poorly known.

**Assessor:** Mitre, M.
**Refs:** 7272, 7980, 14630, 16772

**Ormosia gracilis**

*Leguminosae* LR/ed

Malaysia (Peninsular Malaysia)

A species of submontane primary rainforest, occurring up to 2000m. Some parts of the range are affected by increasing settlement and agriculture, but a sufficient part of the total population is believed to be contained in protective forests within the permanent forest estate.

**Assessor:** Chua, L.S.L.
**Refs:** 19073

**Ormosia grandistipulata**

*Leguminosae* VU D2

Malaysia (Peninsular Malaysia)

This small tree or shrub is confined to rainforest in the state of Terengganu, in Peninsular Malaysia. It has been collected only once and little is known about its altitudinal range. The area is under some pressure from increasing settlement.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 19073

**Ormosia hosiei**

*Leguminosae* LR/nt

China (Fujian, Guans, Guizhou, Hubei, Jiangsu, Jiangxi, Shaanxi, Hubei, Zhejiang)

Populations are wide-ranging, but large individuals are reduced to areas around temples and houses. The natural habitat of this species is in low-elevation broadleaved forest. Habitat conversion to agriculture and overexploitation of the species for its timber are the main causes of population declines.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 1818, 11847

**Ormosia howii**

*Leguminosae* EX

Jamaica

The species is known from a small range in Hanover in woodland on limestone hillsides.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 5653, 7980

**Ormosia polita**

*Leguminosae* VU B1+2c

Malaysia (Peninsular Malaysia)

An endemic tree of Peninsular Malaysia, inhabiting primary lowland rainforest.

**Assessor:** Chua, L.S.L.
**Refs:** 19073

**Oropeha palawanensis**

*Annonaceae* VU B1+2c

Philippines

This tree is endemic to Palawan, found in forests at low and medium altitudes. The main island is a biosphere reserve.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4986

**Oropeha submaculata**

*Annonaceae* VU B1+2c

Philippines

A lowland forest species, confined to Palawan between 200 and 450m. The main island is a biosphere reserve.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 4986, 5651

**Oropeha thomsoni**

*Annonaceae* EN B1+2c

India (Kerala, Tamil Nadu)

Four scattered occurrences are recorded, in two cases
imprecisely, from the Anaimalai area and the Agastymalai Hills. The species occurs in the understory of evergreen forest between approximately 500 and 1000m.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Orofhea uniflora
Annonaceae
India (Karnataka, Kerala, Tamil Nadu)
An understory tree of evergreen forest, ascending to altitudes of 1200m. It appears to be scattered sparsely in the southern end of the Western Ghats, including Wynaad in the Nilgiri Hills Biosphere Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 14276, 19144

Orphanodendron bernalii
Leguminosae
Colombia
An endemic to Antioquia.
Assessor: Calderon, E.
Refs: 19069

Osmoxylon arthricum
Araliaceae
Papua New Guinea (North Solomons)
Endemic to Santa Isabel, this species is known only from the site where it was first collected in steep hill forest at 700m.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Osmoxylon chrysanthum
Araliaceae
Papua New Guinea (North Solomons)
A small tree, known only from the type collection. It was found in a riverine community on the debris banks of a deep gorge at 300m on Guadalcanal Island.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Osmoxylon corneri
Araliaceae
Papua New Guinea (North Solomons)
Endemic to Guadalcanal, this small tree is known only from the type specimen collected at 1470m.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Osmoxylon ellipsioidum
Araliaceae
Papua New Guinea (North Solomons)
A many-branched tree, presently known only from areas of secondary or disturbed lowland hill forest in the Milne Bay District.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Osmoxylon lancealatum
Araliaceae
Papua New Guinea (Bismarck Archipelago)
An understory tree, endemic to central and south New Ireland where it occurs in ridge-top forest on limestone between 750 and 850m.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Osmoxylon mariannense
Araliaceae
Northern Marianas
Endemic to the island of Rota, the species is scattered in moist forest on limestone. There have been no recent surveys but the population certainly contains fewer than 100 or possibly 50 trees, confined to an area of 15km². Lack of regeneration is a serious problem but the causes are unknown.
Assessor: Wiles, G.
Refs: 2474, 16676, 19175

Osmoxylon miquelli
Araliaceae
Indonesia (Irian Jaya)
A sparsely branched tree, known from only a single imperfect collection of no precise locality. It is likely to come from Triton Bay, Fakfak District.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Osmoxylon reburrum
Araliaceae
Papua New Guinea (North Solomons)
A small tree, so far known only from the type collection from the Malaita District.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Osmoxylon whitmorei
Araliaceae
Papua New Guinea (North Solomons)
A small tree endemic to coastal forest in Guadalcanal; it is known only from the type collection.
Assessor: World Conservation Monitoring Centre
Refs: 19031

Ostodes minor
Euphorbiaceae
Sri Lanka
A tree restricted to lowland wet evergreen forest in south-west Sri Lanka. The species was previously found in the Haycock (Hinidiunanda) Biosphere Reserve. However, it was not found again during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either rare or possibly extinct.
Assessor: World Conservation Monitoring Centre
Refs: 17195, 19112

Ostrya rehderiana
Corylaceae
China (Zhejiang)
The wild population is now apparently confined to five damaged individuals on Xitianmu Mountain. The trees are protected but they do not appear to be regenerating naturally.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11725, 11847

Otoba acuminata
Myristicaceae
Costa Rica, Ecuador, Panama
The species is fairly common in lowland forest in Bocas del Toro in Panama and more scarce in Limón in Costa Rica. It is hoped that populations exist in La Amistad National Park in between these two sites and TROPICOS also records the species in Ecuador. Although this suggests the species' range is wide, the
known populations are not large and the habitat is greatly threatened.
Assessor: Mitré, M.
Refs: 7'980, 15037, 16772

**Otophora unilocularis**  
Sapindaceae  
China (Guangdong - Hainan)  
The species is now presumed to be extinct from its only known location in thorny scrub on the seashore in Foiou, Ledong County, south-west Hainan. It was last seen in 1935.
Assessor: World Conservation Monitoring Centre  
Refs: 1'818, 4246, 11847

**Ouratea amplexens**  
Ochnaceae  
VU A1c, B1+2c  
Ghana, Liberia  
A species which occurs commonly but only within a restricted and reduced area of wet evergreen forest. This habitat has experienced significant pressure from mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

**Ouratea caeoleanis**  
Ochnaceae  
VU C2a  
Costa Rica, Panama  
A species of mid-elevation rainforest, which has been collected from Valle de Antón in Cocle and more recently from the province of Panamá, including Altos de Campana National Park, where the population is well protected. Further investigation may reveal the species to be more widespread. There are several undetermined herbarium specimens, which may, prove identifiable to this species and a new record from Puntarenas indicates the species range extends into Costa Rica.
Assessor: Mitré, M.
Refs: 7'272, 7'980, 16772

**Ouratea elegans**  
Ochnaceae  
CR D1  
Jamaica  
A single individual, which has not been satisfactorily identified, is the only currently known specimen of the species. It is found in Copse Woods which is conserved by the landowners. Disturbance has been limited to hurricane damage.
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 7'980

**Ouratea insulae**  
Ochnaceae  
EN C2a  
Guatemala, Honduras, Mexico  
The species occurs in moist lowland thickets, often in secondary growth.
Assessor: Nelson, C.
Refs: 13995

**Ouratea jamaicensis**  
Ochnaceae  
LR/nt  
Jamaica  
A tree with an occasional distribution in central and western parishes in woodland and pasture margins on limestone.
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7'980

**Ouratea patelliformis**  
Ochnaceae  
Panama  
Known only from Pacora, in Panamá Province, the species has not been collected since it was first discovered, despite the area being relatively well explored. A revision of the genus suggests that the taxon is just a form of *O. lucens*.
Assessor: Mitré, M.
Refs: 7'272, 7'980, 16772

**Ouratea quintai**  
Ochnaceae  
VU D2  
São Tomé & Príncipe (São Tomé)  
This small tree is known from coastal areas in Angolares and Diogo Vaz. The island remains unexplored in places, although most of the forest below 1'500m was cleared in the first half of the century.
Assessor: World Conservation Monitoring Centre
Refs: 2724

**Ouratea schusteri**  
Ochnaceae  
VU B1+2c  
Kenya, Tanzania  
A species of moist forest with populations in the Taita Hills, Kasigau, the Usambura and Uluguru Mountains.
Assessor: World Conservation Monitoring Centre  
Refs: 6396, 12067

**Ouratea tumacensis**  
Ochnaceae  
VU B1+2c  
Colombia  
An endemic of Nariño.
Assessor: Calderon, E.
Refs: 19069

**Oxandra leucodermis**  
Annonaceae  
LR/nt  
Venezuela  
Occurring in seasonally flooded evergreen forest, the species has been found in localities along Río Casiquiare and Río Negro in Amazonas.
Assessor: World Conservation Monitoring Centre  
Refs: 19128

**Oxanthera aurantiun**  
Rutaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.
Refs: 10351

**Oxanthera brevipes**  
Rutaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.
Refs: 10351

**Oxanthera fragrans**  
Rutaceae  
EN B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.
Refs: 10351

**Oxanthera neocaledonica**  
Rutaceae  
EN B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.
Refs: 10351
Oxanthera undulata
Rutaceae
New Caledonia
The species was last seen and collected in the vicinity of the upper Dothio. It is questionable whether it should now be considered extinct.
Assessor: Jaffré, T. et al.
Refs: 4492, 10351

Oxera cauliflora
Verbenaceae
New Caledonia

Oxera crassifolia
Verbenaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Oxera macrocalyx
Verbenaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Oxera nuda
Verbenaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Oxymathus lepidus ssp. kigogoensis
Rubiaceae
Tanzania
A small tree with a very restricted range, occurring within a 50m altitudinal belt in moist montane forest in Kigogo.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Oxymathus pyriformis ssp. brevitubus
Rubiaceae
Kenya, Tanzania
In Kenya this taxon is recorded from dry forest on Emali and the Mutito Hills at medium elevations. It is also known from a similar habitat in northern Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 6396, 10351, 12607

Oxymathus pyriformis ssp. longitubus
Rubiaceae
Kenya
This small tree is known only from areas of moist forest in the Shimba Hills, Gongoni and Pangani. Only the Pangani site is unprotected.
Assessor: CAMP Workshop in Kenya
Refs: 6396, 19181

Oxymathus pyriformis ssp. tanganyikensis
Rubiaceae
Tanzania
A shrub or small tree from east and south-east Tanzania, restricted to moist forest or open woodland ranging from low to medium elevations.
Assessor: Lovett, J. & G.P. Clarke
Refs: 8814, 10351

Oxystigma msoo
Leguminosae
Kenya, Tanzania
This large tree is restricted to small areas of remaining moist or riverine forest from south-east Kenya to north-east Tanzania. The only records from Kenya are from Pangani and the Tana Delta.
Assessor: Lovett, J. & G.P. Clarke
Refs: 6396, 10351, 12607

Ozoroa namuagensis
Anacardiaceae
Namibia, South Africa (Northern Cape)
A poorly known multi-stemmed species apparently confined to the lower Orange River Valley in the Goodhouse area of southern Namibia and the Northern Cape. It is recorded from at least three localities in karroid shrubland in a semi-desert environment on non-perennial tributaries leading down to the Orange River. At one locality only a few plants were seen, but all were healthy and flowering profusely. Mining activities in the area could pose a threat. One locality was beside a former main road between South Africa and Namibia. It is likely that this species occurs elsewhere and a field assessment is required to determine its conservation status.
Refs: 689, 19218

Ozoroa reticulata var. nysica
Anacardiaceae
Malawi
This is a variant of a very polymorphic species. The taxonomy may need further confirmation. It is apparently confined to patches of montane woodland on Mount Mulanje. There have been considerable declines in the extent of forest and woodland on the mountain in the past, mainly through timber exploitation and also fires, but there is now some degree of protection. The conservation of remaining resources and prevention of illegal activities are now a high priority.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 15477, 18963

Pachyanthus pedicellatus
Melastomataceae
Cuba
Occurring in montane rainforest especially along creeks, this endemic shrub or tree is restricted to the Sierra Maestra mountain range in eastern Cuba. It is still fairly common although in many places the species is becoming scarce.
Assessor: Areces-Mallea, A.E.
Refs: 16327, 18485, 19149

Pachypodanthium barteri
Annonaceae
Cameroon, Gabon, Nigeria
A swamp forest tree, which appears to be rare. It is known to occur from south-west Nigeria to Gabon. Most parts of the range have suffered large-scale declines in its habitat because of logging and the demand for land for cultivation.
Assessor: World Conservation Monitoring Centre
Refs: 4108, 11504
**Pachypodium namaquanum**  
Apocynaceae  
Namibia, South Africa (Northern Cape)  
A spiny succulent tree recorded in karroid shrubland along both sides of the lower Orange River Valley from the Tantali Valley and Pella mountain range in the east to the Richtersveld, Huib-Hoch and Huns Mountains in the west. It has been recorded from more than 50 localities within an extent of occurrence of approximately 15000 km². The subpopulations on the Namibian side of the Orange River are inaccessible and therefore generally secure. They are fairly large, with an average density of between 625 and 1100 individuals per hectare. Similar densities, with a range of ages, are also found on Pella Mountain. The species has been subjected to much illegal collecting, especially in the Richtersveld, as plants are highly sought-after on both the domestic and international markets. Artificially propagated plants are now widely available and the demand for wild-collected plants has effectively been reduced. There are further threats from mining activities in Namibia and intense grazing and trampling of the surrounding vegetation by domestic livestock in the Richtersveld, although this subpopulation is contained within a national park and provincial nature reserve. There are also low levels of recruitment in the latter subpopulation, apparently because of insect parasitism of the seeds. The species is also protected by law in both South Africa and Namibia and it is listed in *CITES Appendix II.

**Assessor:** Hilton-Taylor, C. *et al.*  
**Refs:** 689, 19141, 19218

**Pachystela subverticillata**  
Sapotaceae  
Kenya  
A coastal shrub or small tree up to 8m, confined to a few isolated areas of moist or riverine forest and dense bushland/woodland.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1308, 6396

**Pachystigma laranthifolium ssp. laranthifolium**  
Rubiaceae  
Kenya, Tanzania  
Ranging from south-east Kenya to north-east Tanzania, this small tree or shrub is confined to patches of dry coastal forest.

**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 6396, 8814

**Palaquium bataense**  
Sapotaceae  
Indonesia, Philippines  
A large tree of primary forests, this species is a source of red nato timber.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4919, 12937, 14573

**Palaquium bourdillonii**  
Sapotaceae  
India (Kerala, Tamil Nadu)  
A relatively large tree, endemic to the southernmost part of the Western Ghats in the Agasthyamalai Hills. It has been collected or recorded from approximately six localities of evergreen forest between 500 and 1300m. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5651, 14276, 19144

**Palaquium canaliculatum**  
Sapotaceae  
Sri Lanka  
A rare tree restricted to lowland evergreen forest in south-west Sri Lanka. Only three localities were identified during the extensive forest surveys conducted for the National Conservation Review.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17195, 19112

**Palaquium grande**  
Sapotaceae  
Sri Lanka  
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17195

**Palaquium impressinervium**  
Sapotaceae  
Malaysia (Peninsular Malaysia), Thailand  
A very large tree of moist lowland and hill forest. The timber is traded internationally, but the greatest threat to the species is from the expansion of settlements.

**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Palaquium laevifolium**  
Sapotaceae  
Sri Lanka  
A species confined to lowland wet evergreen forest in south-west Sri Lanka. Only three trees were found in a single site, proposed for reserve status, during the extensive forest surveys conducted for the recent National Conservation Review.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17195, 19112

**Palaquium luzoniense**  
Sapotaceae  
Philippines  
This primary forest tree is a source of red nato timber and formerly provided gutta-percha for trade.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4919

**Palaquium mindanaense**  
Sapotaceae  
Philippines  
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4919

**Palaquium neo-eubidicum**  
Sapotaceae  
Vanuatu  
An endemic species to Vanuatu, occurring on the islands of Erromango, Pentecost and Banks. It is not uncommon but logging and habitat destruction have led to the species becoming increasingly hard to find.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 11632
Palicourea calycina
Rubiaeae 
VU B1+2c
Ecuador
An endemic of the Ecuadorean High Andes, inhabiting areas of cloud forest between 3200 and 3290m in the provinces of Carchi, Imbabura, Bolivar and Loja. 
Assessor: World Conservation Monitoring Centre 
Refs: 19119, 19120

Palicourea consobrina
Rubiaeae 
VU B1+2c
Peru
Occurring between 2000 and 3000m, this forest species has been recorded only from the department of Cuzco. 
Assessor: World Conservation Monitoring Centre 
Refs: 1984

Palicourea herrerae
Rubiaeae 
VU B1+2c
Peru
Restricted to areas of cloud forest between 2500 and 4000m, the species is recorded in the departments of Cuzco and Huancavelica. 
Assessor: World Conservation Monitoring Centre 
Refs: 1984

Palicourea latifolia
Rubiaeae 
VU B1+2c
Peru
Recorded only from the department of Huánuco, the species occurs in areas of forest between 1500 and 3000m. 
Assessor: World Conservation Monitoring Centre 
Refs: 1984

Palicourea wilesii
Rubiaeae 
VU B1+2c
Jamaica
A locally common species, occurring in shady woodland on limestone or shale in St Andrew, St Thomas and Portland between 280 and 1130m. Almost all the forest at these altitudes has been destroyed or severely degraded. 
Assessor: Bellingham, P. 
Refs: 6057, 7980, 17743, 19116

Pamphilia vilcabambae
Styracaceae 
VU B1+2c
Peru
This species is restricted to cloud and *elfin forest between 2000 and 3000m in the department of Cuzco. 
Assessor: World Conservation Monitoring Centre 
Refs: 1984

Pantheria humboldtiana
Cunoniaceae 
LR/cd
New Caledonia
Assessor: Jaffré, T. et al. 
Refs: 10351

Pantheria multijuga
Cunoniaceae 
LR/cd
New Caledonia
Assessor: Jaffré, T. et al. 
Refs: 10351

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**Palaeium pauciflorum**
Sapotaceae 
VU A1c 
Sri Lanka
A tree confined to the lowland wet evergreen forests of south-west Sri Lanka. 
Assessor: World Conservation Monitoring Centre 
Refs: 17195

**Palaeium petiolare**
Sapotaceae 
LR/cd 
Sri Lanka
Endemic to Sri Lanka, this canopy tree is restricted to the wet lowlands. It is one of the dominant canopy species in the Sinharaja Biosphere Reserve and also occurs in several other forest reserves. 
Assessor: World Conservation Monitoring Centre 
Refs: 17195, 18515

**Palaeium philippense**
Sapotaceae 
VU A1d 
Philippines
A medium-sized tree, of lowland primary forests, which is used as a source of nyatoh timber. 
Assessor: World Conservation Monitoring Centre 
Refs: 2072, 4919, 14573

**Palaeium ravii**
Sapotaceae 
EN B1+2c 
India (Kerala, Tamil Nadu)
Collected twice, this relatively large tree is recorded from two localities of lowland evergreen forest in the region of the Anamalai Hills. 
Assessor: World Conservation Monitoring Centre 
Refs: 19144

**Palaeium regina-montium**
Sapotaceae 
LR/cd 
Malaysia (Peninsular Malaysia)
Occurring in montane and submontane rainforest areas, the species is protected within Taman Negara National Park and other protected forests within the permanent forest estate. 
Assessor: Chua, L.S.L. 
Refs: 14573, 19073

**Palaeium rubiginosum**
Sapotaceae 
VU A1c, B1+2c 
Sri Lanka
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka. This species was found in eight sites during the extensive forest surveys conducted for the National Conservation Review. 
Assessor: World Conservation Monitoring Centre 
Refs: 17195, 19112

**Palaeium thwaitesii**
Sapotaceae 
VU A1c 
Sri Lanka
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka. 
Assessor: World Conservation Monitoring Centre 
Refs: 8203, 17195

**Palaeium zeylanicum**
Sapotaceae 
VU D2 
Sri Lanka
A newly described species from lowland dipterocarp forest in Morapitiya and Kanneliya Forest Reserves. In some places logging is threatening the habitat. 
Assessor: World Conservation Monitoring Centre 
Refs: 11086
**Pachneria robusta**  
_Cunoniaceae_  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Pandanus albofrensis**  
_Pandanaceae_  
VU D2  
Seychelles (Alabstra)  
A small tree of mixed and tall scrub found only in the Gionnet Channel and in the Takamaka area on Picard and Grand Terre. The entire population occurs within an area of less than 1000ha. The fruits are eaten and apparently dispersed by tortoises. The islands are protected within a Strict Nature Reserve. Only Picard has a small number of inhabitants in the research station.  
Assessor: Nature Protection Trust of Seychelles  
Refs: 19027

**Pandanus balfouri**  
_Pandanaceae_  
VU D2  
Seychelles  
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.  
Assessor: World Conservation Monitoring Centre  
Refs: 16212, 17229

**Pandanus carmichaelii**  
_Pandanaceae_  
CR D1  
Mauritius  
A low, sprawling shrub known only from a population confined to marshland at Le Pétrin between 600 and 650m in the south-west. Although the plants appear to flower and fruit regularly, no regeneration has been observed. The species has not been successfully brought into cultivation.  
Assessor: Page, W.  
Refs: 1411, 2026, 9120

**Pandanus clandestinus**  
_Pandanaceae_  
LR/cd  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Pandanus decistigma**  
_Pandanaceae_  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Pandanus decipiens**  
_Pandanaceae_  
VU B1+2c  
Philippines  
This endemic tree of Palawan occurs in thickets and forests at low altitudes, often adjacent to mangrove swamp. The main island is a biosphere reserve.  
Assessor: World Conservation Monitoring Centre  
Refs: 4986

**Pandanus decumbens**  
_Pandanaceae_  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Pandanus gabonensis**  
_Pandanaceae_  
VU D2  
Gabon  
A newly described species which is known only from an area near Mbel. It may be more widespread given that Gabon's forest are relatively unexplored. Most areas of forest, however, are now under concession to logging companies.  
Assessor: World Conservation Monitoring Centre  
Refs: 8572, 14958

**Pandanus halleaorum**  
_Pandanaceae_  
VU D2  
Vanuatu  
A species found only on Vana Lava Island and at Tisbel on Malekula Island in medium-altitude forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 9000

**Pandanus hornei**  
_Pandanaceae_  
VU D2  
Seychelles  
Once a dominant component of palm forest, the species is now restricted to small riverine areas on Mahé, Silhouette, Praslin and Curieuse. Historical clearance of mid-altitude forest has been the main factor causing the species' decline. Invasive plants are the most serious concern now. The species is present in several national parks.  
Assessor: Nature Protection Trust of Seychelles  
Refs: 16212, 17229, 19025

**Pandanus joskel**  
_Pandanaceae_  
VU D2  
Fiji  
A species known from just two locations in Fiji, on Mount Korobamba on Viti Levu and on Koro Island, both at moderately high altitudes.  
Assessor: World Conservation Monitoring Centre  
Refs: 18818

**Pandanus kajui**  
_Pandanaceae_  
VU B1+2c  
Kenya  
A tree with prop roots, endemic to central Kenya.  
Assessor: World Conservation Monitoring Centre  
Refs: 6396, 9151

**Pandanus lacuum**  
_Pandanaceae_  
EN B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Pandanus multispicatus**  
_Pandanaceae_  
VU D2  
Seychelles  
Usually a shrub less than 2m high, but occasionally arborescent, the species is endemic to the Seychelles. Populations are healthy and stable.  
Assessor: World Conservation Monitoring Centre  
Refs: 16212, 17229

**Pandanus palustris**  
_Pandanaceae_  
CR D1  
Mauritius  
Like _P. carmichaelii_, the species, which in this case is a tree growing to 10m, is found in the marshland at Le
Pandanus. Isolated individuals also occur on river courses of
Mare aux Vacoas ('Lake of Pandanus'). Fewer than 20
individuals have been counted. No regeneration is
observed and the plant has not been successfully brought
into cultivation.
Assessor: Page, W.
Refs: 1411, 2026, 9120

**Pandanus papanoensis**
Pandanaceae
French Polynesia (Society Is.)
The species is known only from Tahiti.
Assessor: Florence, J.
Refs: 14513

**Pandanus parvicentralis**
Pandanaceae
Gabon
The wild population remains unknown. The species is
known only from herbarium specimens.
Assessor: World Conservation Monitoring Centre
Refs: 8572

**Pandanus peteri**
Pandanaceae
Mozambique
Scattered in woodland remnants in swampy or wetland
places, the species is confined to an area stretching from
Namacurra to Quelimane and the Zambezi Delta. The
populations are unprotected and contained within a zone
which is under pressure from growing human
populations and their activities.
Assessor: Burrows, P.
Refs: 19172

**Pandanus pyramidalis**
Pandanaceae
Mauritius
Originally known from marshland areas on the central
plateau, the last known individual died in 1995 of
disease. It is possible that the species survives in areas
which have not been surveyed.
Assessor: Page, W.
Refs: 1411, 2026, 9120

**Pandanus sechellarum**
Pandanaceae
Seychelles
Endemic to the Seychelles, the species qualifies as
threatened by virtue of its restricted distribution. Populations are healthy and stable.
Assessor: World Conservation Monitoring Centre
Refs: 16212, 17229

**Pandanus taveuniensis**
Pandanaceae
Fiji
A tree confined to Taveuni Island, where the population
is reported to be extensive.
Assessor: World Conservation Monitoring Centre
Refs: 18818

**Pandanus tectorius var. uapensis**
Pandanaceae
French Polynesia (Marquesas Is.)
One of the numerous varieties of this Polynesian
species. It is known only from Ua Pou in the Marquesas.

**Pandanus teusii**
Pandanaceae
Gabon
The population in the wild is unknown. The species is
known only from herbarium specimens.
Assessor: World Conservation Monitoring Centre
Refs: 8572

**Pandanus thomensis**
Pandanaceae
São Tomé & Príncipe (São Tomé)
A tree known from several collections, both recent and
old, from Rodia, Ilheu das Rolas and S. António de
Mussacau. Areas of São Tomé remain to be explored,
although most of the forest below 1500m was cleared in
the first half of the century.
Assessor: World Conservation Monitoring Centre
Refs: 2724

**Pandanus verecundus**
Pandanaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pappobolus sanchezii**
Compositae
Peru
Known only from the type collection, the species occurs
in cloud forest between 2500 and 4000m in the
department of Cajamarca.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Paracalyx balfouri**
Leguminosae
Yemen (Socotra)
A species of lowland dry woodland on Socotra and also
Samha, one of The Brothers. Its occurrence is very
scattered but populations are under no immediate threat.
Assessor: Miller, A.G.
Refs: 2354, 19083

**Parajubaea toralii**
Palmae
Bolivia
Endemic to the Bolivian Andes, the species is scattered in
dry forest on steep rocky slopes between 2400 and
3400m in inter-Andean valleys. There is little evidence of
regeneration: most stands almost completely lack
seedlings and juveniles. Although local communities are
concerned about the species' conservation and two
populations are now contained within a protected area at
El Palmar, no research or action has been taken to deal
with the lack of regeneration.
Assessor: Moraes, M.
Refs: 19118, 19180
Paramachaerium schunkei
Leguminosae
Peru
This lowland Amazon forest species is known only from the type collection from the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Paranecepsia alchorneifolia
Euphorbiaceae
VU B1 + 2b
Mozambique, Tanzania
A monotypic genus. It is found in remaining riverine forest or thicket in eastern Tanzania extending south into north-east Mozambique.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 8814

Paranephelium hainanensis
 Sapindaceae
EN B1 + 2c
China (Guangdong - Hainan)
A species with a highly restricted range, valuable as a timber and confined to woodland below 200m in Yaxian County on Hainan Island. Scattered singly or in small stands, individuals have become scarcer because of cutting and habitat clearance. Remaining stands do not appear to be protected in any way.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Parashorea aptera
Dipterocarpaceae
CR A1 cd
Indonesia (Sumatra)
Found below 70m in eastern Sumatra, this tree grows on sandy soils on low hills.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Parashorea chinensis
Dipterocarpaceae
EN A1 cd, C2a, D1
China (Guangxi, Yunnan), Viet Nam
An emergent tree, reaching heights of 80m, in primary forest areas within Mengla, Maguan and Hekou in Yunnan, parts of south-west Guangxi and the northern provinces of Viet Nam. In China only a few large trees are left, the Yunnan population being restricted to an area of 20km². Insect attacks, resulting in premature fruit-fall, are frequent. In Viet Nam the species is sometimes found in pure stands. Populations have been overexploited for their timber in both countries.
Assessor: Ashton, P.
Refs: 648, 1818, 11847, 13857, 15357, 15754, 19055

Parashorea densiflora
Dipterocarpaceae
EN A1 cd, B1 + 2c
Malaysia (Peninsular Malaysia)
A tree scattered throughout the lowland dipterocarp forest of Peninsular Malaysia, which is cut for gerutu timber.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Parashorea globosa
Dipterocarpaceae
EN B1 + 2c, D1
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A tree suffering from degradation of the lowland dipterocarp forest.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Parashorea lucida
Dipterocarpaceae
CR A1 cd, B1 + 2c, C2a
Indonesia (Kalimantan, Sumatra), Malaysia (Sarawak)
This species is found in mixed dipterocarp forest on hills.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Parashorea macrophylla
Dipterocarpaceae
CR A1 cd, B1 + 2c, C2a
Brunei, Malaysia (Sarawak)
A large timber tree which is confined to moist clay-rich soils in Sarawak and Brunei. An occurrence has been recorded in a proposed reserve.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Parashorea malaanonan
Dipterocarpaceae
CR A1 cd
Brunei, Malaysia (Sabah, Sarawak), Philippines
A very large dipterocarp tree of lowland primary forest, which is used as white seraya timber and is the most important commercial timber of northern Borneo. This threatened species is located in a proposed reserve site.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Parashorea stellata
Dipterocarpaceae
CR A1 cd
Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam
This slow-growing tree is found in seasonal lowland and evergreen dipterocarp hill forest.
Assessor: Ashton, P.
Refs: 7673, 13857, 19093

Parasitaxus ustus
Podocarpaceae
LR/nt
New Caledonia
A small shrub which parasitises the roots of Falcatifolium taxoides. Although populations are small, the species is widely dispersed in cloud forest and under effective protection in Rivière Bleue Provincial Park. There are threats of mining in Mont Dzumac and Mont Paléoua.
Assessor: SSC Conifer Specialist Group
Refs: 12630, 13041

Parathesis amplifolia
Myrsinaceae
VU C2a
Panama
Occurring in moist evergreen forest between 700 and 1500m, the species is known from two main areas, from Cerro Jefe in Chagres National Park and from Kunayala Indigenous Reserve. There are few collections but the forest is relatively extensive and well protected. Occurrences are also recorded in Fortuna Forest Reserve in Chiriquí and Valle de Antón in Coclé.
Assessor: Mitré, M.
Refs: 7272, 7980, 14873, 16772

Parathesis aurantica
Myrsinaceae
VU B1 + 2c
El Salvador
Endemic to El Salvador, the species occurs in Chalatenango, Los Esesmiles and in the east of la Falma.
It is found in montane pine-oak forest, where it is widely exposed to threats of logging, agriculture and pastoralism.

Assessor: World Conservation Monitoring Centre
Refs: 19030

Parathesis bicolor
Myrsinaceae
Panama

The species is known from three collections: the type from the El Llano–Carié highway, from Cerro Campana in Altos de Campana National Park and most recently in 1982 from a collection without a named locality but with co-ordinates which fall in the middle of the ocean.

Assessor: Mitré, M.
Refs: 16772

Parathesis congesta
Myrsinaceae
El Salvador

Confined to Chalatenango and El Imposible National Park, the species is scattered in forest areas up to 1200m. The main threats to the populations are posed by habitat loss through logging, forest management activities and the spread of agriculture. There are restrictions on these activities in the national park.

Assessor: World Conservation Monitoring Centre
Refs: 19030

Parathesis glaberina
Myrsinaceae
Panama

Known only from the type collection, gathered from Cerro Tute in Veraguas in 1975. There are problems of identification with the members of this family in Panama and a taxonomic revision is needed.

Assessor: Mitré, M.
Refs: 16772

Parathesis panamensis
Myrsinaceae
Colombia, Panama

The species is known only from the type collection, gathered in 1927 from Valle de Talamanca, Bocas del Toro. TROPICOS records the species in Antioquia in Colombia but no further details are known.

Assessor: Mitré, M.
Refs: 7272, 7980, 14873, 16772

Parathesis siebertii
Myrsinaceae
Costa Rica, Panama

A common species of montane forest in Chiriquí, Panama, occurring in Volcán Barú National Park, La Amistad National Park, on both the Panama and Costa Rica sides, and Fortuna Forest Reserve. It is also reported from Bocas del Toro, Panama, and in high areas of the provinces of Alajuela and Puntarenas in Costa Rica.

Assessor: Mitré, M.
Refs: 16772

Parathesis tenifolia
Myrsinaceae
Panama

The species was described in 1971 on the basis of a single collection from Bocas del Toro in 1928. The exact locality from which the specimen was collected is not known. The family in Panama is in need of taxonomic revision.

Assessor: Mitré, M.
Refs: 16772

Parathesis vulgata
Myrsinaceae
Guatemala, Honduras

Mainly occurring at middle and upper elevations of mountain slopes, the species is found in areas of rainforest or cloud forest.

Assessor: Nelson, C.
Refs: 13995

Parinari argenteo-sericea
Chrysobalanaceae
Malaysia (Sabah)

This tree, endemic to Sabah, is found in lowland forest and in forest along streams. It is known only from Lanad Datu, Sandakan and Tawau.

Assessor: World Conservation Monitoring Centre
Refs: 19017

Parinari papuana ssp. salomonense
Chrysobalanaceae
Solomon Islands (Santa Cruz Is, South Solomon)

A lowland rainforest tree restricted to the Solomon Islands. It is locally common in parts of the New Georgia group. Populations are located in a prime logging area and the tree makes up a fairly large proportion (6–10%) of the logs exported to Japan. Habitat loss is also a threat.

Assessor: Eddowes, P.J.
Refs: 19114

Parkia harbesonii
Leguminosae
Philippines

Endemic to Palawan, the species occurs in areas of lowland forest up to 150m. The main island is a biosphere reserve.

Assessor: World Conservation Monitoring Centre
Refs: 4986, 18088

Parkia korom
Leguminosae
Federated States of Micronesia

An endemic tree of the island of Ponape in Micronesia. It occurs in primary forest and provides a useful wood for constructing canoes. It does not appear to have been collected in the last 50 years.

Assessor: World Conservation Monitoring Centre
Refs: 6835

Parkia parrii
Leguminosae
Fiji

No record has been made of the species since the type collection, which was gathered in 1878 from Mbwa Province, Vanua Levu. At the time of the collection the timber of the species was used for various purposes.

Assessor: World Conservation Monitoring Centre
Refs: 6835, 18818

Parkia parvifoliola
Leguminosae
Palau

A primary forest tree, which is known only from the
island of Babeldaop in the Republic of Palau. It does not appear to have been collected in the last 50 years.

**Assessor**: World Conservation Monitoring Centre

**Refs**: 6835

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**Parkinsonia raimondoi**

Leguminosae

Somalia

Endemic to south-central Somalia, this species occurs in Acacia-Commiphora bushland on sand. The habitat continues to be degraded and destroyed by increasing agriculture and overcutting, particularly in the vicinity of Mogadishu.

**Assessor**: Thulin, M.

**Refs**: 7550, 8697, 18665

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**Parmentiera cereifera**

Bignoniaceae

Panama

Wild populations of the species occur in lowland evergreen forest on the Atlantic coast, either side of the Panama Canal, in Colón and Panamá Provinces. It is not a common species and in some places the habitat is under serious threat from logging. It is found in botanic gardens throughout the world.

**Assessor**: Mitré, M.

**Refs**: 7990, 15037, 16772

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**Parmentiera dressleri**

Bignoniaceae

Panama

The species is restricted to lowland evergreen rainforest on the Atlantic side of Panamá and Colón Provinces. Populations are small and rare within an area which is potentially highly vulnerable to logging and habitat clearance. Some occurrences coincide with protected areas.

**Assessor**: Mitré, M.

**Refs**: 14873, 15037, 16772

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**Parmentiera morii**

Bignoniaceae

Panama

The few collections made all come from the same area on a highway from El Llano to Cartí. Trees are found within deciduous rainforest between 250 and 400m. In recent years there has been much habitat clearance. It is possible that there are populations in the Kunayala Indigenous Reserve and Darién National Park, which would improve the species' status.

**Assessor**: Mitré, M.

**Refs**: 5335, 7980, 13316, 16772

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**Parmentiera stenocarpa**

Bignoniaceae

Colombia

A Colombian endemic, known only from Antioquia and Chocó.

**Assessor**: Calderon, E.

**Refs**: 7980, 19069

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**Parodiiodendron marginivillosum**

Euphorbiaceae

Argentina, Bolivia

Endemic to the piedmont forest of north-west Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.

**Assessor**: Prado, D.

**Refs**: 19122

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**Pasania dodonaeifolia**

Fagaceae

Taiwan

The morphological similarity of the species to *P. formosana* and the existence of intermediate forms raise some doubt as to its current taxonomic status. Both species are confined to the Hengchun Peninsula, this taxon occurring in localities of lowland broadleaved forest in Tawu and Chinsuiying. The populations are small and little regeneration has been noted.

**Assessor**: Pan, F.J.

**Refs**: 3295, 19050, 19051

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**Pasania formosana**

Fagaceae

Taiwan

The notes under *P. dodonaeifolia* are relevant here. Both taxa are restricted to the Hengchun Peninsula and are morphologically closely related. This species is based on a single population of fewer than 50 individuals, confined to the windward slopes of Nanjenshan. Seed crops appear to be poor and heavily predated by squirrels. Little regeneration is evident. The location is contained within Kenting National Park.

**Assessor**: Lu, S.Y. & F.J. Pan

**Refs**: 3295, 19050, 19051

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**Paulownia kawakamii**

Scrophulariaceae

Taiwan

Only 13 mature trees appear to remain in the wild in the Chiayang area, Central Cross Island, Hwy. The mixed evergreen forest habitat has been extensively destroyed to make way for apple and peach orchards. The species has also been overexploited in the past for its valuable timber.

**Assessor**: Pan, F.J.

**Refs**: 3295, 19050

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**Pauridianthia insularis**

Rubiaceae

São Tomé & Príncipe (São Tomé)

A small tree of montane forest. It was collected from Macambrara and Pico. No recent collections have been made.

**Assessor**: World Conservation Monitoring Centre

**Refs**: 2724

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**Pausinystalia brachythyrsum**

Rubiaceae

Cameroon

The only evidence of this species is the type specimen, which was collected in 1746 in Bipindé in western Cameroon. The species may be considered to be extinct.

**Assessor**: World Conservation Monitoring Centre

**Refs**: 4509

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**Pausinystalia lane-poolei** ssp. *lane-poolei*

Rubiaceae

Ghana, Liberia, Sierra Leone

The range of this rare tree is almost confined to medium elevations in the Nimba Mountains in Liberia, possibly extending into Sierra Leone. It is also recorded in wet evergreen forest in Ghana. Mining for iron-ore, logging,
the establishment of commercial plantations and the influx of people into these areas have caused large-scale destruction of the habitat.  

Assessor: Hawthorne, W.  
Refs: 2773, 4509, 8369, 12061

**Pavetta abyssinica var. usambarica**  
Rubiaceae  
VU B1+2b  
Tanzania  
A variety endemic to the West Usambara Mountains, where it is found in moist semi-deciduous forest at elevations above 1675m.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 10961

**Pavetta azillipara**  
Rubiaceae  
VU B1+2b  
Tanzania  
Restricted to the South Nguru Mountains, this small tree is located in a small area of moist forest at 1200m.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 1308, 3356

**Pavetta comostyla var. matengoana**  
Rubiaceae  
VU B1+2b  
Tanzania  
One of the two distinct variants of the subspecies nyassica. This taxon is found only in a restricted area of dry montane forest on Lupembe Hill.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

**Pavetta comostyla var. nyassica**  
Rubiaceae  
VU B1+2b  
Malawi, Tanzania  
This taxon is the more widespread of the two variants of the subspecies nyassica. It is distributed in two small areas of moist montane forest in Tanzania and further south in Malawi.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 1308, 3356, 8814

**Pavetta holstii**  
Rubiaceae  
VU B1+2b  
Tanzania  
Populations are known from the East Usambara Mountains and the South Nguru Mountains. The species occurs at medium elevations in moist evergreen forest.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

**Pavetta intermedia**  
Rubiaceae  
VU B1+2c  
Democratic Republic of Congo, Uganda  
A difficult species to identify and apparently uncommon. It has a restricted range in eastern DR Congo, extending into Uganda.  
Assessor: *MUIENR*  
Refs: 1308, 9837, 16021

**Pavetta johnstonii ssp. breviloba**  
Rubiaceae  
VU B1+2b  
Tanzania, Zambia  
A dry montane forest shrub or small tree.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 10961

**Pavetta kyimbilensis var. iringensis**  
Rubiaceae  
VU B1+2b  
Malawi, Tanzania  
A shrub or small tree of moist montane forests, above 1800m. The variety is known from the Udzungwa Mountains, Njombe and Rungwe Mountains in Tanzania, also occurring in Malawi. The type variety is more restricted in range.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

**Pavetta kyimbilensis var. kyimbilensis**  
Rubiaceae  
VU B1+2b, D2  
Tanzania  
A small tree or shrub known from a single population in an area of moist montane forest on Mount Njombe in Tanzania. The other variant of the species is similarly restricted to East African montane forest but is more widespread.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

**Pavetta lasioclada**  
Rubiaceae  
VU A1cd, B1+2c  
Cameroon, Côte d’Ivoire, Ghana, Guinea, Mali, Sierra Leone, Togo  
Ranging from Guinea to Cameroon, this species is found in areas of upland evergreen forest. This forest type has suffered from farming, fire, forest management activities and large-scale mining.  
Assessor: Hawthorne, W.  
Refs: 2773, 8854, 12061

**Pavetta linearifolia**  
Rubiaceae  
VU B1+2b  
Kenya, Tanzania  
Ranging from the lower Tana and lower Galana area in Kenya to eastern Tanzania, this small tree or shrub is restricted to remaining areas of dry coastal forest.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 6396, 12067

**Pavetta lynesii**  
Rubiaceae  
VU B1+2b  
Tanzania  
Populations are restricted to areas of moist montane forest in Njombe, Udzungwa Mountains and Ukguru.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 10961

**Pavetta macrosepala var. macrosepala**  
Rubiaceae  
VU B1+2b  
Mozambique?, Tanzania  
Restricted in range, this is a shrub or small tree found in dry deciduous coastal thickets on sand. It is possible that the range of this variety extends into Mozambique.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 1308, 3356, 8814

**Pavetta macrosepala var. puberula**  
Rubiaceae  
VU B1+2b  
Tanzania  
A variety restricted to coastal thickets in south-east Tanzania.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814
**Pavetta manyanguensis**

Rubiaceae  
VU B1+2b  
Tanzania
An endemic to an area of moist montane forest at 1800m on South Nguru.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 8814*

**Pavetta mollissima**

Rubiaceae  
Côted’Ivoire?, Ghana  
VU A1c, B1+2c
A small tree of wet evergreen forest, mainly in Ghana, possibly extending into Côted’Ivoire. This forest has declined in extent because of the effects of mining, logging and the establishment of commercial plantations.
*Assessor: Hawthorne, W.  
*Refs: 12061*

**Pavetta monticola**

Rubiaceae  
Equatorial Guinea (Annobón), São Tomé & Príncipe (São Tomé)  
VU D2
A small tree known from several collections, some recent, in forest up to 1950m. Much of the rainforest below 1500m on São Tomé was felled in the first half of the century.
*Assessor: World Conservation Monitoring Centre  
*Refs: 2724*

**Pavetta nitidissima**

Rubiaceae  
Tanzania  
VU B1+2b, D2
A single population is known from an area of moist montane forest at Mwanihana in the Udzungwa Mountains.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 10961*

**Pavetta sepium var. massaica**

Rubiaceae  
Tanzania  
VU B1+2b
A small tree or shrub, known from a single site of dry montane forest in east Tanzania.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 8814*

**Pavetta sepium var. sepium**

Rubiaceae  
Kenya, Tanzania  
VU B1+2b
In Kenya this variety has been recorded from groundwater or riverine forest and rocky bushland in the Taita Hills and Loitokitok. It also occurs in northern Tanzania.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 6396, 8814*

**Pavetta sarsipila**

Rubiaceae  
Tanzania  
VU B1+2b
A small tree or shrub restricted to moist evergreen forest in the North Uluguru Mountains.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 5204*

**Pavetta sphaerobotrys ssp. lanceispala**

Rubiaceae  
Tanzania  
The range of this shrubby tree is restricted to north-east Tanzania, where it occurs in patches of dry coastal forest.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 8814*

**Pavetta sphaerobotrys ssp. sphaerobotrys**

Rubiaceae  
VU B1+2b  
Tanzania
A shrubby tree confined to a few localities of dry coastal forest in Kilosa.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 8814*

**Pavetta sphaerobotrys ssp. tanaica**

Rubiaceae  
Kenya  
VU B1+2c
A shrub or tree endemic to the lower Tana River, where it occurs in areas of riverine forest or woodland.
*Assessor: World Conservation Monitoring Centre  
*Refs: 6396*

**Pavetta subumbellata var. subcoriacea**

Rubiaceae  
Malawi, Tanzania  
VU B1+2b
A taxon known from a single locality of moist montane forest at Mufindi, Tanzania, and also from a population in Malawi.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 1308, 3356, 8814*

**Pavetta tarenoides**

Rubiaceae  
Kenya  
VU B1+2c
A shrub or tree, rarely described as climbing, endemic to the Shimba Hills.
*Assessor: World Conservation Monitoring Centre  
*Refs: 6396*

**Pavetta tendagurensis var. glabrescens**

Rubiaceae  
Tanzania  
VU B1+2b
A variant of a Tanzanian endemic. It is known from dry lowland forest in Mlinguru, Tendaguru and the Rondo Plateau.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 8814*

**Pavetta tendagurensis var. tendagurensis**

Rubiaceae  
Tanzania  
VU B1+2b, D2
A poorly known small tree or bush which is known only from the type locality at Tendaguru.
*Assessor: Lovett, J. & G.P. Clarke  
*Refs: 3356, 8814*

**Pavonia spicata var. troyana**

Malvaceae  
Jamaica  
LR/nt
The Jamaican variety of a Caribbean species. It occurs in woodland on limestone in the central and north-western parishes.
*Assessor: World Conservation Monitoring Centre  
*Refs: 6057, 7980*
Peddiea kivuensis
Thymeleaceae
Democratic Republic of Congo
The distribution of this species is limited. It occurs in lowland closed forest in the Forestier Central.
Assessor: Ndjile, M.B.
Refs: 17185, 17951

Pelagodoxa henryana
Palmaceae
French Polynesia (Marquesas Is.)
A monotypic palm genus restricted to Nuku Hiva in the Marquesas. It grows in rainforest at 40m. The main threats are grazing by feral pigs and land clearance for agriculture and human habitation.
Assessor: Johnson, D.
Refs: 19118

Pelea obovata
Rutaceae
USA (Hawaii)
Assessor: World Conservation Monitoring Centre
Refs: 3372

Pellacalyx yunnanensis
Rhizophoraceae
China (Yunnan)
An evergreen tree known only from two localities in Mengla County, where it occurs in dense monsoon forest between 600 and 850m. The population has been reduced to a few hundred plants, including a few individuals within a nature reserve.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 19055

Pellegrinioidendron diphyllum
Leguminosae
Cameroon, Côte d'Ivoire, Gabon, Ghana
Confined to areas of wet evergreen forest, where it can be common, this small understory tree is found on both sides of the Dahomey Gap. There has been significant loss of this forest in all countries because of mining, logging and commercial forestry activities. It is a slow-growing species from a monotypic genus.
Assessor: World Conservation Monitoring Centre
Refs: 8369, 12061, 12597, 19043

Pennantia baylisiana
Icacinaceae
New Zealand (North Is.)
A species which has only ever been known from a single tree, discovered in 1946 on Great Island in Three Kings Islands Group. Although sexes as female, the tree has produced viable pollen and some seedlings have been raised ex situ. The decline of the species has been attributed to habitat destruction as a consequence of human occupation and browsing by goats.
Assessor: de Lange, P.J.
Refs: 4253, 9800, 17637, 19133, 19134

Pentace acuta
Tiliaceae
Malaysia (Peninsular Malaysia)
A scattered tree of lowland and hill forest, known only from Bubu Forest Reserve in Perak and Bukit Bauk Forest Reserve in Terengganu.
Assessor: Chung, R.C.K.
Refs: 19073

Pentace excelsa
Tiliaceae
Malaysia (Peninsular Malaysia)
Known only from Gunung Mandi Angin in Terengganu and Gunung Tapis in Pahang, this large tree is common at 600m in moist montane forest.
Assessor: Chung, R.C.K.
Refs: 19073

Pentace exima
Tiliaceae
Malaysia (Peninsular Malaysia)
A tree found scattered within open forest, usually occurring on the coastal hills of Penang, Perak and Pahang.
Assessor: Chung, R.C.K.
Refs: 19073

Pentace grandiflora
Tiliaceae
Malaysia (Peninsular Malaysia)
A locally common tree found in open moist forests of Bukit Bauk, Jerangau, Ulu Sungai Loh and Gunung Mandi Angin in Terengganu.
Assessor: Chung, R.C.K.
Refs: 8464, 19073

Pentace microlepidota
Tiliaceae
Malaysia (Peninsular Malaysia)
Scattered and rare, this tree grows in lowland and hill forests. The timber is used locally.
Assessor: Chung, R.C.K.
Refs: 19073

Pentace perakensis
Tiliaceae
Malaysia (Peninsular Malaysia)
Scattered in lowland and hill open forest, this tree is known only from Lanit Hills, Perak, where it is threatened by tourism and expanding settlements.
Assessor: Chung, R.C.K.
Refs: 19073

Pentace strychnoidea
Tiliaceae
Malaysia (Peninsular Malaysia)
An endemic tree most common in hill forest.
Assessor: Chung, R.C.K.
Refs: 8464, 11145, 19073

Pentagonia rubiflora
Rubiaceae
Peru
Known only from the type collection, the tree occurs in lowland forest in San Martin. It is possibly a synonym of P. velutina.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Pentapanax castanopsisicola
Araliaceae
Taiwan
Usually an epiphytic shrub, the species is scattered in small populations throughout the central mountain range. Occurring in broadleaved evergreen forest at medium elevations, some populations are protected in
Yushan National Park; others are under pressure from encroaching housing developments.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 3295, 6469, 19050, 19051

**Pentapax henryi**
Araliaceae

**Leguminosae**

Endemic to parts of north-west and south-east Yunnan, the species occurs in subtropical monsoon forest between 1200 and 2600m. Its bark is widely used, and in some instances overexploited, for its medicinal properties. There are several occurrences within nature reserves.
Assessor: Sun, W.
Refs: 19055

**Pentaspodon motleyi**
Anacardiaceae

Indonesia (Irian Jaya, Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak), Papua New Guinea (North Solomons, Papua New Guinea), Solomon Islands (South Solomon)

In Papua New Guinea, this species occurs mainly in primary forest on the banks of streams and rivers in the Gulf and Madang Provinces and Bougainville in the North Solomons. It is under great threat from habitat destruction in these areas and is considered to be endangered (EN C2a). The situation is likely to be similar elsewhere.
Assessor: World Conservation Monitoring Centre
Refs: 5550, 9328, 11145, 12937, 17140, 19114

**Pera aperta**
Euphorbiaceae

Panama

Known only from the type specimen, it is uncertain whether the species is extinct or whether it has been incorrectly described as a separate taxon from *P. arboarea*, which also occurs in the area. No specimens have been collected since 1941.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

**Perebea glabrifolia**
Moraceae

Brazil (Amazonas)

There exists only one collection, made in 1932 from São Paulo de Olivença.
Assessor: Pereira, J.P. et al.
Refs: 7980, 15771

**Pericopsis elata**
Leguminosae

Cameroon, Congo, Côte d’Ivoire, Democratic Republic of Congo, Ghana, Nigeria

A timber species, also known as *Afrormosia*, which provides an important alternative to teak. It is a gregarious species, restricted to the drier parts of semi-deciduous forests in Central and West Africa. Since 1948 trade in the timber has soared. Levels of exploitation have been unsustainable in all countries and the species’ habitat has declined. Regeneration is insufficient to replace lost populations. The species is currently listed in *CITES Appendix II.
Assessor: African Regional Workshop
Refs: 4506, 6128, 6718, 8325, 8369, 14301, 17408

**Pericopsis mooniana**
Leguminosae

Federated States of Micronesia, Indonesia (Irian Jaya, Java, Kalimantan, Moluccas, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah), Palau, Papua New Guinea, Philippines, Sri Lanka

A fairly large tree mainly found scattered within coastal forests. The species has been heavily exploited for its beautiful timber, which is in great demand and realises high prices. Supplies are limited and trade and export are minimal. It is threatened further by poor natural regeneration and lack of replanting. Very few stands remain in Sulawesi, it is thought to be almost extinct in Sabah, and it is considered to be rare or vulnerable in Peninsular Malaysia, Kalimantan and Sri Lanka. In Papua New Guinea, this species is restricted to the heavily logged Oriomo River in the Western Province, where it is possibly now extinct.
Assessor: Asian Regional Workshop
Refs: 1517, 4329, 5550, 8203, 8865, 12779, 12937, 13395, 14573, 17991, 18796, 19026, 19112, 19114

**Peritasia killipii**
Celastraceae

Peru

Known only from the type collection, the species occurs in lowland Amazon forest in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Perrotettia excelsa**
Celastraceae

Panama

There have been no records of the species since 1980. The two collections known are from the same site. Fieldwork is needed in order to ascertain whether the species still exists.
Assessor: Mitré, M.
Refs: 15991, 16772

**Perrotettia multiflora**
Celastraceae

Costa Rica, Panama, Venezuela

A cloud forest species which, in Panama, occurs in small populations only in Chiriquí and Darién. In Costa Rica populations appear to be larger and scattered throughout the country at elevations above 1000m. Records also exist from Venezuela and it is likely that the species will be found in Colombia. Most parts of the range are protected, although extensive agriculture is beginning to affect some high-altitude areas in Panama and Costa Rica.
Assessor: Mitré, M.
Refs: 7272, 15991, 16772

**Persea alpigena var. harrisi**
Lauraceae

Jamaica

This variety is hard to distinguish from the type variety. Both are endemic to the Blue Mountains, this form apparently being locally common in montane thickets on shale above 750m.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 12564

**Persea brenesii**
Lauraceae

Costa Rica

The species is known only from an area of wet
evergreen forest, occurring between 1100 and 1200m, near La Palma de San Ramón. It is possible that the
taxon represents a unusual form of *P. veraguensis.*
Assessor: World Conservation Monitoring Centre
Refs: 12587, 14487

**Persia bullata**
Lauraceae  
VU B1+2c
Ecuador
A small tree of the High Andes, endemic to areas of
montane and upper montane cloud forest between 2500
and 3500m in the provinces of Loja, Chimborazo and
Zamora-Chinchipe.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

**Persea campsi**
Lauraceae  
VU B1+2c
Ecuador
A small tree of cloud forest between 2400 and 2900m in
the Ecuadorian High Andes, known only from Loja and
Azuay Provinces.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

**Persea floccosa**
Lauraceae  
VU B1+2c
Mexico (Chiapas, Oaxaca, Puebla, Veracruz)
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 1857, 10816, 16121

**Persea glabra**
Lauraceae  
VU D2
Brazil (Bahia)
A shrub or tree, newly described and known only from
the type collection, which was made in secondary
vegetation at the edge of forest in Fico das Almas.
Assessor: World Conservation Monitoring Centre
Refs: 15421

**Persea indica**
Lauraceae  
LR/cd
Portugal (Madeira), Spain (Canary Is.)
The wild origin of the species is a little obscure. It
appears to have been introduced to the Azores three
centuries ago. Occurrences on these islands are therefore
excluded for the purposes of assigning an IUCN red list
category. On Madeira and the Canaries, populations are
known from remaining *laurisilva* and cloud forest.
Although the extent of the stands is much reduced as a
result of past exploitation of the highly valued wood, the
species is still abundant in parts of Madeira and the
Canaries. It is listed in regional legislation and occurs
within protected areas.
Assessor: Baùares, A. *et al.*
Refs: 5287, 7222, 19022, 19131

**Persea julianae**
Lauraceae  
VU D2
Suriname
A poorly known species which has been collected only
from a single locality at 1200m on Julianaput.
Assessor: World Conservation Monitoring Centre
Refs: 19196

**Persea liebmanni**
Lauraceae  
VU B1+2c
Mexico (Chiapas, Oaxaca, Puebla, Sinaloa)
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 1857, 16121, 16794

**Persea lingue**
Lauraceae  
LR/nt
Argentina (Chubut), Chile (Biobío, La Araucania, Los
Lagos, Maule, O’Higgins, Santiago, Valparaíso)
Distributed over much of the Central Depression up to
900m in Chile, extending into Argentina, the species is
widespread but suffering from extensive habitat loss.
Logging, increasing agriculture and fires are the main
concerns.
Assessor: González, M.
Refs: 5112, 5448, 7980, 16328

**Persea obtusifolia**
Lauraceae  
VU B1+2c
Costa Rica, Panama
Occurring in montane *elfin forest or drier sites at
higher elevations, the species is known solely from the
easternmost parts of the Cordillera de Talamanca,
extending into the Chiriquí highlands in Panama.
Assessor: World Conservation Monitoring Centre
Refs: 12587, 15037

**Persea philippinensis**
Lauraceae  
VU A1cd
Philippines
An endemic to the Philippines. Rates of habitat loss
through logging and shifting cultivation have led to
considerable population declines.
Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919, 7673, 18088

**Persea podadenia var. glabriramea**
Lauraceae  
VU B1+2c
Mexico (Veracruz)
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 1857, 10816

**Persea rutilii**
Lauraceae  
VU D2
Peru
The species is known only from the type collection
taken from the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

**Persea schiedeana**
Lauraceae  
VU A1c
Belize, Costa Rica, El Salvador, Guatemala, Honduras,
Mexico (Chiapas, Oaxaca, Puebla, Quintana Roo, San
Luis Potosí, Veracruz), Nicaragua, Panama
Occurring throughout Central America and Mexico, the
species is confined to areas of forest above 1000m. It
has become extremely sparse in some countries, such as
Costa Rica and Panama, and it is almost extinct in El
Salvador.
Assessor: World Conservation Monitoring Centre
Refs: 15037, 16121, 16772

**Petroleum arboreum**
Compositae  
EN D1
St Helena
The smallest of the cabbage trees. It is confined to damp
areas of relict tree-fern thicket or cabbage-tree woodland
on the upper slopes of the central ridge above 600m, principally at Cuckhold's Point, below Diana's Peak, Actaeon, above Grapevine Gut, Cabbage Tree Road. A total of approximately 150 plants exist. The genus is monotypic.
Assessor: Cronk, Q.C.B.
Refs: 9954, 11891, 19081

**Phoebe bournei**
Lauraceae
China (Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Zhejiang)
A valuable timber, widely occurring as single trees or in groves in evergreen forest. Larger trees have become rare in places where there has been exploitation. The species' preference for fertile lowlands has also brought it into competition with the expansion of agriculture. Plantations have been established.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

**Phoebe chekiangensis**
Lauraceae
VU B1+2c
China (Fujian, Jiangxi, Zhejiang)
A large evergreen tree with a localised distribution in areas of evergreen broadleafed forest, where it frequently occurs as a dominant component. The species has been overexploited for its timber in most of its range and the habitat has deteriorated in many places.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

**Phoebe nanmu**
Lauraceae
EN B1+2ce
China (Xizang, Yunnan)
In Yunnan the species is known mainly from populations in monsoon forest in the south and west. It is only recorded from Meitus in south-east Tibet (Xizang). During the last 10 years populations have been declining because of overcutting. The timber is excellent for building construction and furniture. Some areas of forest are protected.
Assessor: Sun, W.
Refs: 1818, 11847, 19055

**Phoebe poilanei**
Lauraceae
VU D2
Viet Nam
Apparently endemic to Viet Nam, the species is located close to the Chinese border in Phong Tho, Lai Chau Province, between 1600 and 1700m.
Assessor: World Conservation Monitoring Centre
Refs: 848

**Phoebe scortechinii**
Lauraceae
LR/cd
Malaysia (Peninsular Malaysia)
Recorded only from Maxwell's Hill in Perak, this tree is scattered in montane forest. Maxwell's Hill is a protected area.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Phoebe zhenan**
Lauraceae
VU A1d
China (Guizhou, Hubei, Hunan, Sichuan)
A valuable timber. Populations have been reduced in extent and are now mainly confined to semi-natural forest. Large individuals are left around temples, parks and villages.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

**Phoenicophorium borsigianum**
Palmae
LR/nt
Seychelles
A forest palm tree endemic to the Seychelles. This
specifies is locally abundant and easily colonises bare eroded lands.

Assessor: Murugaiyan, P.
Refs: 19118

Phallicus rupicola
Palmae LR/nt
India (Arunachal Pradesh, Meghalaya, Sikkim)
A small palm tree of rocky slopes, occurring in the lower Himalaya Mountains up to 450m. Increasing settlement of the area is the main threat.
Assessor: Johnson, D.
Refs: 19118

Phallicus theophrasti
Palmae LR/nt
Greece (Crete), Turkey (Turkey-in-Europe)
A palm tree found in the sandy beds of temporary streams up to 250m. On Crete, there are eight populations; the largest contains a few thousand individuals and is protected under Greek law. Four populations are known in Turkey.
Assessor: Johnson, D.
Refs: 19118

Phallicus kingianus
Palmae VU B1+2c
Malaysia (Peninsular Malaysia), Singapore
Restricted to swamp forest in Peninsular Malaysia, this palm tree is threatened by rapid habitat conversion for agriculture and urbanisation.
Assessor: Saw, L.G.
Refs: 19118

Phallicus macrocarpus
Palmae VU B1+2c
Malaysia (Peninsular Malaysia), Thailand
A palm tree of swamp forest up to 500m, restricted to Peninsular Malaysia and Peninsular Thailand. Most of the swamp forests are subject to forest conversion and forestry activities.
Assessor: Saw, L.G.
Refs: 19118

Photinia lasiogyna
Rosaceae VU A1cd
China (Guizhou, Hunan, Jiangxi, Sichuan, Yunnan, Zhejiang)
A relatively widespread species, occurring in broadleaved or mixed forest above 2000m. Habitat declines and degradation have reduced population sizes.
Assessor: Sun, W.
Refs: 19055

Photinia lasiopetala
Rosaceae VU D1+2
Taiwan
Occurring in broadleaved evergreen forest above 800m, the species is confined to a few populations in central Taiwan. Part of the range is covered by Taroko National Park. Other areas are susceptible to increasing housing developments.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 19050, 19053

Photinia serratfolia var. tomentosa
Rosaceae EN B1+2c
India (Tamil Nadu)
An endemic to the Nilgiris, occurring in montane forest above 1900m.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Phragmocitha rubriflora
Bombacaceae VU B1+2c
Colombia
An endemic to Antioquia.
Assessor: Calderon, E.
Refs: 19069

Phylica polifolia
Rhamnaceae CR C2a
St Helena
Occurring now only as a low straggling bush, the last tree form specimen died recently at Blue Hill. Populations have been reduced to dry locations on cliffs, e.g. High Hill, Lot, between Distant Cottage and Asses' Ears. Although there may be up to 100 plants, their distribution is fragmented and they are vulnerable to competition from introduced plants.
Assessor: Cronk, Q.C.B.
Refs: 5556, 19081

Phyllanthus arbuscula
Euphorbiaceae LR/nt
Jamaica
A variable species with distinctive populations in middle-elevation and montane woodlands on limestone. In the western Blue Mountains, the population is restricted to a small area north of the Grand Ridge at the headwaters of the Mabess River.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 12564

Phyllanthus axillaris
Euphorbiaceae EN B1+2c
Jamaica
Known only from Trelawny, the species occurs very locally in dry scrubby woodland on rocky hillsides. There is a constant threat of overcutting and encroaching agriculture.
Assessor: Kelly, D.L.
Refs: 5653, 19085

Phyllanthus cauliflorus
Euphorbiaceae VU B1+2c
Jamaica
Populations are known from Westmoreland and Hanover, where the species occurs locally in thickets and woodlands on limestone rocks.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Phyllanthus cladanthus
Euphorbiaceae LR/nt
Jamaica
An uncommon slender tree, occurring in thickets and woodlands on limestone, especially in wet areas.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980
**Phyllanthus eximius**

Euphorbiaceae  
VU B1+2c  
Jamaica  
Known only from Portland, the species occurs locally in wet mossy thickets and woodland on limestone areas.  
**Assessor:** Kelly, D.L.  
**Refs:** 401, 5653, 19085

**Phyllanthus fadynii**

Euphorbiaceae  
DD  
Jamaica  
A very poorly known species, recorded only from a single herbarium specimen.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980

**Phyllanthus gentryi**

Euphorbiaceae  
EN D1  
Panama  
This shrub or small tree is known only from evergreen rainforest, often on slopes, in the Serranía de Pirre, close to the Colombian border. It is possible that the species range extends into Colombia. Regeneration appears to be good and the population is protected within Darién National Park.  
**Assessor:** Mitré, M.  
**Refs:** 15037, 16772

**Phyllanthus latifolius**

Euphorbiaceae  
LR/nt  
Jamaica  
A shrub or small tree which occurs in some abundance in dry thickets on low limestone ridges, cliffs and ledges in St Andrew and St Catherine.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Phyllanthus montanus**

Euphorbiaceae  
LR/nt  
Jamaica  
An apparently abundant species occurring in western and central parishes in woodland and thickets on limestone.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Phyllanthus profusus**

Euphorbiaceae  
VU A1c, B1+2c  
Ghana, Guinea, Liberia  
A species confined to the restricted areas where wet evergreen forest remains in parts of the Upper Guinea region. This habitat has been lost from the sites where mining, logging and commercial forestry have occurred.  
**Assessor:** Hawthorne, W.  
**Refs:** 2773, 12061

**Phyllanthus watsonii**

Euphorbiaceae  
LR/ed  
Malaysia (Peninsular Malaysia)  
Recorded only from north Johore and south Pahang, this rheophyte is confined to forest on the banks of Endau River. The area is protected within Endau-Rompin National Park.  
**Assessor:** Kochummen, K.M.  
**Refs:** 17140, 19073

**Phyllastemonodaphne geminiflora**

Lauraceae  
EN B1+2c  
Brazil (Espírito Santo, Minas Gerais, Rio de Janeiro)  
Last collected in 1978, the species is concentrated around Rio de Janeiro, but is also known from forests further inland.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7145

**Phyllostylon orthopterorum**

Ulmaceae  
VU B1+2ac  
Bolivia  
Endemic to the piedmont forest in Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.  
**Assessor:** Prado, D.  
**Refs:** 19122

**Phyloxyylon arenicola**

Leguminosae  
CR B1+2abc  
Madagascar  
A coastal forest and woodland species known only from Baie de Rigney and Baie d'Irodo forests in north-east Madagascar, with an estimated range of less than 10 km² (*AOO). These areas are under severe local pressure from selective cutting and degradation.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353

**Phyloxyylon decipiens**

Leguminosae  
EN B1+2abc  
Madagascar  
A deciduous woodland species known only from a very restricted area of north-east Madagascar. Its range is estimated to be 250km² (*EOO) based mainly on old records, and is likely to be considerably smaller. This species is declining through habitat destruction and selective cutting of its highly sought-after timber. It occurs within Analamerana Reserve.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353

**Phyloxyylon perrieri**

Leguminosae  
EN A2d  
Madagascar  
A deciduous woodland species that is widespread but uncommon in west Madagascar. Its range extends an estimated 10,000 km² (*AOO) but occurs within extremely fragmented and decreasing patches of vegetation. This species is selectively and intensively felled for its construction properties and for fuel. A rapid decline is expected. It is found within some reserves such as Ankarafantsika, Bemaraha and Namoroka.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353

**Phylloxylon phillipsonii**

Leguminosae  
CR B1+2abc  
Madagascar  
Known only from a single recent collection, this deciduous woodland species occurs in a highly populated area near a main road, south-east of Antsiranana in north Madagascar. Its range is probably considerably less than the estimated 100km² (*EOO), as there are very few remnants of native vegetation in the area. No conservation measures exist.  
**Assessor:** Du Puy, D. & H. Labat  
**Refs:** 12353
Phyloxyylon spinosa  
Leguminosae  
EN B1+2abc  
Madagascar  
A deciduous species that is uncommon and restricted to two limestone outcrops in the northern tip of Madagascar: Montagne des Français and Ankaran Massif. Its estimated range is 100km² (*AOO) and includes the Ankaran Reserve. Selective and intensive felling for its favoured construction properties mean it is expected to decline rapidly.  
Assessor: Du Puy, D. & H. Labat  
Refs: 12353

Phyloxyylon xiphoclada  
Leguminosae  
CR B1+2abc  
Madagascar  
An evergreen species last recorded over 40 years ago from a single very restricted area estimated to cover less than 10km² at Tampoketsa d’Ankazobe in central Madagascar. The vegetation is extremely degraded and declining and few small remnant forested patches remain.  
Assessor: Du Puy, D. & H. Labat  
Refs: 12353

Phyloxyylon xylophyloides  
Leguminosae  
VU A2cd  
Madagascar  
A widespread species in the evergreen, humid forests of north and east Madagascar, with a substantial population in the coastal forest in the south-east, north of Taolanarivo. This last population contains many individuals but will be felled for the RTZ (QIT) titanium mines in the near future, reducing the known population by at least 20%. The largest area of possible occurrence includes Andasibe/Perinet, Montagne d’Ambre and Mont Tsaratanana Reserves.  
Assessor: Du Puy, D. & H. Labat  
Refs: 12353

Physokentia dennisi  
Palmae  
DD  
Solomon Islands (South Solomon)  
A palm tree found in gullies and on lower hill slopes in damp shaded forests between 200 and 700m.  
Assessor: Dow, J.L.  
Refs: 19118

Physokentia tete  
Palmae  
LR/nt  
Vanuatu  
Endemic to Vanuatu, this palm tree occurs in rainforest and mossy cloud forest between 200 and 1000m. It is regenerating well.  
Assessor: Dow, J.L.  
Refs: 19118

Physokentia thurstonii  
Palmae  
LR/nt  
Fiji  
Small populations exist on mountain summits, such as Mount Kambalau, Mount Mariko, Mount Seatura and Mount Sori on Vanua Levu. There are also a few plants on Taveuni. Regeneration is apparent. Some areas are affected by logging.  
Assessor: Fuller, D.  
Refs: 6053, 19118

Phytelephas seemannii  
Palmae  
LR/cd  
Colombia, Panama  
A small tree of lowland rainforest. Large populations remain along some rivers on the Pacific coast of Colombia. Seeds are used for vegetable ivory, which is traded at a minor international level. Conservation activities are taking place, and a recent project on the sustainable use of the seeds has resulted in local awareness of the importance of the species and its protection.  
Assessor: Bernal, R.  
Refs: 19118

Phytelephas tumacana  
Palmae  
EN B1+2c  
Colombia  
An endemic palm of Colombia, found in lowland moist forest on alluvial soils. Populations have been severely decimated by agriculture and are now restricted to only a few rivers. The species has a variety of uses as a food, thatching and as a source of vegetable ivory. Utilization and trade continue at local and minor international levels.  
Assessor: Bernal, R.  
Refs: 19118

Picea azorica  
Oleaceae  
EN B1+2c  
Portugal (Azores)  
Once a dominant component of forest between 300 and 600m on all of the Azores, except Graciosa. Overexploitation of the wood and habitat loss have now led to the species becoming almost extinct on some islands. It remains scattered in coastal forest consisting mainly of introduced species.  
Assessor: World Conservation Monitoring Centre  
Refs: 1512, 5287, 7222, 19131

Picea excelsa  
Oleaceae  
VU C1, D2  
Portugal (Madeira), Spain (Canary Is.)  
The species has a fragmented distribution but still appears to be relatively frequent in areas of cloud forest above 1000m on the Canaries. It is rare and scattered over a slightly wider altitudinal range in *laurisilva on Madeira. In the past it was exploited for its timber but is now included in regional legislation.  
Assessor: Bañares, A. et al.  
Refs: 4556, 19022, 19131

Picea acoquiana var. acicularis  
Pinaceae  
VU D2  
Japan  
Endemic to the Yatsugadake Mountains this variety is restricted to a small area (<100km²) of montane forest, most of it being state forest. It provides a useful timber.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 13206, 18751

Picea acoquiana var. reflexa  
Pinaceae  
VU D2  
Japan  
A few (<5) small populations in scattered locations are confined to the volcanic Akaishi range of central Honshu. They occur in mixed montane forest.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 6879, 13206
**Picea aurantiaca**  
**Pinaceae**  
EN B1+2abc  
China (Sichuan, Xizang?)  
A species of montane coniferous forest confined to a small area west of Kangding in Sichuan. Forests in this area are increasingly under pressure from indiscriminate logging. Populations have declined and, as yet, there is no protection for the species.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 11242, 11847, 13041

**Picea brachytyla**  
**Pinaceae**  
VG A1cd  
China (Gansu, Henan, Hubei, Shaanxi, Sichuan, Xizang, Yunnan)  
A widespread species valued highly for its timber. It occurs in montane coniferous forest, which is experiencing increasing rates of logging and deforestation throughout the species' range. Population declines are not documented but are believed to be considerable.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 1818, 11847

**Picea brachytyla var. complanata**  
**Pinaceae**  
VG A1cd  
China (Sichuan, Yunnan), India (Arunachal Pradesh), Myanmar  
A valuable timber tree, widespread but suffering from overexploitation and loss of the montane forest habitat to logging and clearing.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 6879, 11847

**Picea brewerianna**  
**Pinaceae**  
LR/nt  
USA (California, Oregon)  
A species of conservation concern because of its restricted range in the Siskiyou Mountains of south-west Oregon and north-west California. It is limited to areas of mixed conifer forest mostly on glacial moraines. It is too rare to be exploited for its timber but it is cultivated on a small scale as an ornamental plant. Part of the range is also managed as a wilderness area in the Siskiyou National Forest.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 13041

**Picea chihuahuana**  
**Pinaceae**  
EN B1+2e  
Mexico (Chihuahua, Durango, Nuevo León)  
A species known from about 25 sites, containing a few to several hundred trees, often in canyons or on moist north-facing scree slopes. Regeneration is poor and inadequate. A continued decline in the population, especially of seeding trees, is expected.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 1539, 14683, 17554

**Piceo engelmannii ssp. mexicana**  
**Pinaceae**  
EN A1a, B1+2abc  
Mexico (Chihuahua, Nuevo León)  
The main population of this subspecies occurs at the type locality in coniferous montane forest in the Sierra de la Marta where it was nearly exterminated by a forest fire in 1975. There are possibly less threatened small populations at Cerro Mohihora in Chihuahua and in south-east Arizona.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 6879, 8661, 17554

**Picea farrii**  
**Pinaceae**  
EN B1+2abc  
China? (Yunnan), Myanmar  
This species is confined to coniferous montane forest in the Fen-Shui-Ling Valley at the China–Myanmar border. There are unconfirmed reports of other populations, some occurring further north along the Salween–Irawaddy divide. Habitat loss and logging are serious threats but the current situation is not known because it has been impossible to visit the area.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 3812, 13041

**Picea koraiensis var. pungsanensis**  
**Pinaceae**  
VG D2  
North Korea  
A useful timber tree which is restricted to a few localities of upland coniferous forest along the coast at Keizanchin, Mount Pungsan and Hamnam. There are no known measures to protect the species.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 11117

**Picea koyamae**  
**Pinaceae**  
EN D1  
Japan  
An endemic to the Yatsugadake Mountains in central Honshu. Fewer than 250 individuals have been recorded, in small groves. It has been the case that after typhoons the timber is harvested and the area is replanted with commercial species.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 13206

**Picea likiangensis var. hirtella**  
**Pinaceae**  
VG B1+2c  
China (Sichuan, Xizang)  
This variety is restricted to high-altitude coniferous forests in the mountains of west Sichuan and neighbouring Tibet. The tree provides a useful timber and levels of exploitation of both it and the forest in general have caused serious habitat fragmentation and population declines.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 6879

**Picea likiangensis var. montigena**  
**Pinaceae**  
EN B1+2a  
China (Sichuan)  
A useful timber tree restricted to a small area of high-altitude coniferous forest in south-west Sichuan. Levels of exploitation of both the tree and the forest in general have caused population declines. There are no signs of the pressure easing and no protection measures are enforced.  
**Assessor**: SSC Conifer Specialist Group  
**Refs**: 374, 18751

**Picea martinezii**  
**Pinaceae**  
CR B1+2c  
Mexico (Nuevo León)  
This species has been treated as a synonym of *P. chihuahuana*. It is a timber tree confined to just two sites of montane forest near streams in Nuevo León. Timber
has been extracted in recent years in the larger of the two populations. The other population has fewer than 15 individuals. Fire is the main threat.

**Picea maximowiczii var. maximowiczii**

**Pinacea**

VU B1+2c

Japan

Two varieties are in the same situation of being confined to small and scattered populations in degraded montane woodland on Fuji-San and Yatsugatake Mountains. Both the habitat and the tree have been overexploited. Much of the habitat remains degraded and regeneration is poor.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 13041, 13026

**Picea maximowiczii var. senanensis**

**Pinacea**

VU B1+2c

Japan

As with var. maximowiczii this taxon is confined to small and scattered populations in degraded montane woodland on Fuji-San and Yatsugatake Mountains. Overexploitation of the tree and the habitat has occurred in the past. Much of the habitat remains degraded and regeneration is poor.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 13041, 13026

**Picea morrisonica**

**Pinacea**

VU A1ac

Taiwan

One of the most important timber species in Taiwan. It is usually associated with Tsuga chinensis in areas of montane coniferous forest. Populations have declined because of overexploitation. There are records of the species in Yushan and Shuepai National Parks.

**Assessor:** Lu, S.Y. & F.J. Pan  
**Refs:** 374, 2106, 6469, 19050, 19051

**Picea nevelechii**

**Pinacea**

EN B1+2ab

China (Gansu, Henan, Hubei, Shaanxi, Shanxi, Sichuan)

The species is very rare and scattered within its range in montane coniferous forest on the southern slopes of the Qinling Mountains. The forest has experienced large reductions in extent and the entire population has declined in numbers, especially at Neixiang. A good stand is apparently still found in Xinjia Shan.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 1818

**Picea omorika**

**Pinacea**

VU D2

Bosnia and Herzegovina

The Serbian spruce is known from fewer than 1000 trees, occurring in 60ha of montane forest entirely within Pancie Narodni Nature Reserve in the Tara Mountains. The only threat appears to come from competition with P. abies and P. orientalis. It is widely cultivated.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 4978, 5287, 7222

**Picea retroflexa**

**Pinacea**

VU B1+2abc

China (Sichuan)

A tall tree restricted to a small area of high-altitude cloud forest along the Yalong River and north and west of Kangding in south-west Sichuan. Levels of exploitation of the old growth coniferous forests are substantial and threatening the integrity of all populations.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 11191

**Piraramia bullata**

**Simaroubaceae**

VU D2

Peru

Known only from the type collection, the species occurs in terra firme forest in the department of Loreto.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984, 17398

**Pirrasma excelsa**

**Simaroubaceae**

VU A1cd

Cuba, Dominican Republic, Haiti, Jamaica, Puerto Rico, St Vincent, Venezuela

A single population, now thought to be extinct, was once recorded from El Sabalo in Pinar del Rio Province, Cuba, where the habitat has largely been deforested. Elsewhere in the Greater Antilles, the species and habitat have also suffered from overcutting. A record exists from northern Venezuela.

**Assessor:** Areces-Mallea, A.E.  
**Refs:** 19149

**Pierreodendron kerstingii**

**Simaroubaceae**

VU B1+2c

Benin, Côte d'Ivoire, Ghana, Togo

Occurring from Côte d'Ivoire to Benin, this is an uncommon species from a heavily exploited semi-deciduous forest habitat. The only other species in the genus, although apparently ecologically distinct, is very similar. If the two were to be taxonomically merged the species would be wide-ranging and at lower risk.

**Assessor:** Hawthorne, W.  
**Refs:** 2773, 7111, 8369, 12061

**Pilgerodendron uviferum**

**Cupressaceae**

VU A1cd+2cd

Argentina (Chubut, Neuquén, Río Negro, Santa Cruz), Chile

Large-scale destruction of the forest during colonial times and the widespread opening up of the lowland areas have led to the extinction of the species from most of its original distribution. It is slow to mature and its regeneration is very poor, especially under a canopy. The species is listed in *CITES Appendix I.

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 278, 374, 5112, 6036, 13041, 15251, 19179

**Pilocarpus goudotianus ssp. heterochromus**

**Rutaceae**

CR B1+2c

Colombia

An endemic to Huila.

**Assessor:** Calderon, E.  
**Refs:** 7980, 19069

**Pimenta adenoclada**

**Myrtaceae**

VU B1+2c

Cuba

Endemic to Cuba, this shrub or small tree is confined to coastal habitats in dry forests on limestone. Only areas which are unsuitable for agriculture or inaccessible have
Survived. Overcutting, burning and settlement are constant threats.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 5435, 5651, 7980, 19149

**Pimenta caimitoides**

Myrtaceae  
VU B1+2c  
Cuba

The species is known from rocky montane areas in Sierra Maestra and other mountain ranges in eastern Cuba, this species is not well collected. There has been extensive habitat loss from overcutting, mining and tourism remains in areas which are inaccessible or unattractive to agriculture.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 5435, 5651, 7980, 11403, 18485, 19149

**Pimenta ferruginea**

Myrtaceae  
EN B1+2c  
Cuba

A poorly known species, found only in one location on the coast in Pinar del Rio Province. Overcutting and tourism are the main threats but vegetation remains in rugged and inaccessible areas. Fieldwork is necessary to locate viable populations.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 5435, 5651, 7980, 19149

**Pimenta filipes**

Myrtaceae  
VU B1+2c  
Cuba

Endemic to eastern Cuba, this small tree is found in dry forests, savannas and coastal areas. There is an unconfirmed record from a relatively inaccessible montane area in south-central Cuba. Logging, grazing, urban expansion and mining have significantly reduced the original populations. Tourism is also a major threat.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 5435, 5651, 19149

**Pimenta haitiensis**

Myrtaceae  
VU D2  
Dominican Republic

A shrub or small tree restricted to a small area in Pedernales, where it occurs in a unique coastal xerophytic vegetation on 'dog tooth' limestone substrate. The leaves are a popular source of fragrance and are sold in markets. If exploitation increases, the species will become seriously threatened.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5435, 7980, 10197

**Pimenta jamaicensis**

Myrtaceae  
LR/nt  
Jamaica

A tree resembling *P. dioica*, the source of allspice. It is restricted to the highlands of Jamaica above 600m. A popular source of firewood but populations are probably most seriously threatened by habitat degradation.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5435, 6057, 7980

**Pimenta obscura**

Myrtaceae  
VU B1+2c  
Jamaica

An uncommon small tree, closely related to *P. dioica*, the source of allspice. It is restricted to forest areas in the highlands of Cockpit Country.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 5435, 5653, 7980

**Pimenta odiolens**

Myrtaceae  
VU D2  
Cuba

A small tree restricted to the province of Baracoa. The habitat has experienced declines because of logging, overcutting, mining and tourism. Unspoilt areas remain where the terrain is rugged and inaccessible.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 5435, 7980, 19149

**Pimenta oligantha**

Myrtaceae  
VU D2  
Cuba

Known only from Sierra de Nipe in the Oriente, this shrub or small tree is poorly documented and confined to a habitat declining through logging, overcutting, mining and tourism. Only areas which are inaccessible remain relatively unspoilt.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 5435, 5651, 7980, 19149

**Pimenta podocarpoides**

Myrtaceae  
EN B1+2c  
Cuba

A morphologically interesting species which is known only from the type location, near a stream in Oriente Province. The habitat has been extensively degraded by logging, overcutting, mining and tourism. The spread of invasive plants along streams is also a major threat. Fieldwork is necessary to search for populations in more inaccessible, intact areas.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 5435, 5651, 7980, 19149

**Pimenta pseudocaryophyllus var. hoehnei**

Myrtaceae  
VU B1+2c  
Brazil (Santa Catarina, São Paulo)

A coastal forest taxon, known from about four localities in São Paulo and Santa Catarina. Large-scale deforestation and habitat degradation have occurred over the centuries. The type variety is found further inland.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5435, 7980

**Pimenta racemosa var. hispaniolensis**

Myrtaceae  
VU B1+2c  
Dominican Republic, Haiti

A Hispaniola endemic found in remaining upland broadleaved forest in a number of locations. The decline in the extent of forest has been drastic.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5435, 7980

**Pimenta racemosa var. ozua**

Myrtaceae  
VU B1+2c  
Dominican Republic, Haiti

Endemic to north-central Hispaniola, this variety grows in forest and woodland areas. The habitat has been drastically reduced in extent. This species has a use as a fragrance to a disinfectant called 'puro ozua'.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 5435, 7980

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*Species Summaries*
Pimenta racemosa var. terebinthina
Myrtaceae EN B1+2c
Dominican Republic
Known only from the vicinity of Peninsular Samaná, this variety occurs in areas of forest on limestone. The forest has been dramatically reduced in extent and continues to be threatened by grazing, agricultural encroachment and logging.
Assessor: World Conservation Monitoring Centre
Refs: 5435, 7980

Pimenta richardii
Myrtaceae EN B1+2c
Jamaica
A Jamaican endemic, known from just two locations of upland forest in Cockpit Country.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5435, 5653, 7980

Pinus abiesculus
Pinaceae VU A1c
Canada (Alberta, British Columbia), USA
A widespread species of subalpine and alpine woodlands in the Cascades, Sierra Nevada and Rocky Mountains in the USA and parts of Canada. Infections of the introduced rust, Cronartium ribicola, have caused population reductions of 80 to 90%, especially in the northern wetter parts of the range. In addition, populations in national parks are adversely affected by fire-suppression regimes and predation by Dendroctonus ponderosae.
Assessor: SSC Conifer Specialist Group
Refs: 13041

Pinus amamiana
Pinaceae VU D2
Japan
This species is known from scattered populations in lowland coniferous woodland on Yakushima and Tanegashima Islands. It was formerly exploited and seems slow to regenerate where conditions have become exposed.
Assessor: SSC Conifer Specialist Group
Refs: 374, 4506, 11191

Pinus aristata
Pinaceae LR/nt
USA (Arizona, Colorado, New Mexico)
A slow-growing species, usually occurring in open stands on high rocky slopes in the Rocky Mountains. Regeneration may be impeded by grazing livestock. Climatic changes may also be a factor. Most stands are protected from cutting or damage.
Assessor: SSC Conifer Specialist Group
Refs: 7222, 13041

Pinus armandii var. mastersiana
Pinaceae EN A1c
Taiwan
A timber tree endemic to Taiwan. Levels of exploitation and the degradation of its montane forest habitat have caused substantial declines in the population.
Assessor: SSC Conifer Specialist Group
Refs: 374

Pinus ayacahuite var. veitchii
Pinaceae LR/nt
Mexico
An important timber tree. It is scattered thinly in nine Mexican states in coniferous montane forest. The population is concentrated around México city and must be under great pressure from urban and other developments. The timber is highly sought-after. More information may indicate that a threat category is appropriate.
Assessor: SSC Conifer Specialist Group
Refs: 7980

Pinus balfouriana ssp. austrina
Pinaceae LR/nt
USA (California)
A number of isolated populations occur within protected areas in the Sierra Nevada at subalpine levels. The trees are extremely slow-growing and recruitment may be insufficient. Fire and grazing by wildlife are also problems. Populations are being monitored and protected against fire hazards.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Pinus balfouriana ssp. balfouriana
Pinaceae LR/nt
USA (California)
A few isolated populations occur at subalpine altitudes on the Klamath Mountains within USDA National Forest lands. The trees are extremely slow-growing and populations may be susceptible to fire and the grazing of wildlife. Old trees are protected from being cut or damaged.
Assessor: SSC Conifer Specialist Group
Refs: 13041

Pinus brutia var. eldarica
Pinaceae DD
Afghanistan?, Azerbaijan, Georgia, Iran?
The only certain population occurs on the Azerbaijan-Georgia border.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041, 18751

Pinus caribaea var. caribaea
Pinaceae VU A1c+2c
Cuba
A heavily exploited taxon of lowland and hill pine forest and mixed oak–pine forests on slaty rocks, occurring in Pinar del Río and Isla de Pinos. Burning and logging of large areas of pine forest have transformed the habitat into savanna. Frequent fires also prevent regrowth of the species in favour of P. tropicalis.
Assessor: SSC Conifer Specialist Group
Refs: 374, 8646, 13041, 19149

Pinus cembroides ssp. lagunae
Pinaceae VU A1c
Mexico (Baja California Sur)
Although this taxon is not a valuable timber tree, it is the only pine in this remote region and is exploited at a low level. It occurs in open stands in meadows or with oak above 1600m, mostly in La Laguna, covering a range of about 100km². The area is not protected and, although not easily accessible, it is susceptible to fire and overgrazing.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6004, 8475, 18751
**Species Summaries**

**Pinus cembroides ssp. orizabensis**
Pinaceae
Mexico (Puebla, Tlaxcala, Veracruz)
Assessor: SSC Conifer Specialist Group
Refs: 374, 7980, 8475, 13041

**Pinus clausa**
Pinaceae
USA (Alabama, Florida)
The sand pine is a useful species of lowland open forest and scrub on well-drained soils. Although it is in part dependent on fire for regeneration, it is also especially vulnerable to intense forest fires. There is no evidence to suggest that populations have declined, as yet.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

**Pinus contorta var. bolanderi**
Pinaceae
USA (California)
A small tree endemic to the white sand pine barrens along the Mendocino coast. The area comes under various pressures from development, overland vehicles and fires.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041, 19193

**Pinus culminicola**
Pinaceae
Mexico (Coahuila, Nuevo León)
A deciduous shrub which occurs in montane stands on exposed rocky summits of Cerro Potosí and neighbouring peaks, covering an area of several hundred hectares. Growth and regeneration are slow and susceptible to fire. None of the populations is within a protected area. A road to an observatory gives easy access to the largest population.
Assessor: SSC Conifer Specialist Group
Refs: 374, 1538, 5194, 7980

**Pinus dabeshanensis**
Pinaceae
China (Anhui, Henan, Hubei)
Confined to upland mixed forest in parts of the Dabeshan, mature trees are few and rates of regeneration and growth are poor.
Assessor: SSC Conifer Specialist Group
Refs: 1818, 11847

**Pinus dalatensis**
Pinaceae
Viet Nam
Until recently the species was known from only one area of montane evergreen forest near Dalat. It has now been found in four adjacent provinces, extending into central Viet Nam, including four occurrences within nature reserves: Ngoc Linh, Chu Yang Sinh, Dao Ngoan Muc and Nui Ba. Populations remain low in numbers and are increasingly reduced to isolated areas.
Assessor: SSC Conifer Specialist Group
Refs: 374, 848, 4966, 15357

**Pinus densiflora var. funebris**
Pinaceae
North Korea, Russia, South Korea
Assessor: SSC Conifer Specialist Group
Refs: 374, 3811, 13041, 18751

**Pinus fenzeliana**
Pinaceae
China (Guangdong-Hainan, Guangxi, Hunan), Viet Nam
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

**Pinus gerardiana**
Pinaceae
Afghanistan, China (Xizang), India (Jammu-Kashmir), Pakistan
Populations are widespread in areas of montane open forest but they are small and low in density. In many areas the seed crop is exploited unsustainably but the effects on regeneration are not yet clear. In Afghanistan plantations have been established to supply the seeds.
Assessor: SSC Conifer Specialist Group
Refs: 256, 374, 4966

**Pinus jaliscaea**
Pinaceae
Mexico (Jalisco)
Confined to Sierra el Cuale in the north-west part of Sierra Madre del Sur, the species is present in mostly undisturbed areas of submontane pine-oak forest. Mining operations are under way in the area.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6004, 7980

**Pinus krempfii**
Pinaceae
Viet Nam
The species is known only from localised populations in Khanh Hoa and Lam Dong Provinces in the south. It occurs within Nui Ba and Dao Ngoan Muc Nature Reserves.
Assessor: Loc, Phan Ke
Refs: 848, 11530, 12455, 19044

**Pinus kwangtungensis**
Pinaceae
China (Guangdong, Guangdong - Hainan, Guangxi, Guizhou, Hunan), Viet Nam
The species' distribution is concentrated on the Nanling range, but extends into Hoa Binh and Cao Bang Provinces in Viet Nam. It is thought to exhibit a wide ecological tolerance and frequently occurs in pure stands, but much of the habitat has declined and populations are frequently reduced to steep cliffs or inaccessible places. In Viet Nam the population numbers are low and declining (EN D).
Assessor: SSC Conifer Specialist Group
Refs: 848, 1739, 1818, 9492, 11847, 15357, 19044

**Pinus longicaulis**
Pinaceae
China (Guangdong, Guangdong - Hainan, Guangxi), Myanmar, Viet Nam
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

**Pinus longaeva**
Pinaceae
USA (California, Nevada, Utah)
In most populations very old, senescent and even dead trees predominate. These are some of the oldest trees in the world, reaching ages of 4870 years. Their growth rate is extremely slow. It is doubtful whether present rates of regeneration are sufficient to replace the population under present climatic and environmental
conditions. Most areas where the species occurs are protected and cutting or gathering wood is prohibited.  

**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 13041, 19193

**Pinus luchuensis**  
Pinaceae  
Japan (Ryukyu Is.)  
Confined to Luchu in the Ryukyu Islands, stands occur frequently near sea-water. During and after the Second World War trees were heavily harvested. The present poor form of the remaining trees precludes further exploitation. Plantations have been established.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 448

**Pinus massoniana var. hainanensis**  
Pinaceae  
China (Guangdong - Hainan)  
A variety confined to two main locations in the Yajia range on Hainan Island. It occurs individually or in small clumps on the margins of tropical montane rainforest and mossy summit woodland. There is a danger that the area will be taken over for commercial forestry management.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 1818, 11847

**Pinus maximartinezii**  
Pinaceae  
Mexico (Zacatecas)  
A total population of fewer than 10,000 trees exists, within an area of approximately 10 km², in montane dry forest on inaccessible summit ridges and eastern slopes of the Sierra de Morone near Juichipila. Regeneration is poor, possibly because the seeds are collected in considerable numbers for food. Cattle grazing and fires also pose threats. The land is privately owned but formal protection measures are being considered.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 81, 374, 7980, 9300

**Pinus merkusii**  
Pinaceae  
Indonesia (Sumatra), Philippines  
An important timber tree known from open pine woodlands in Sumatra around Lake Toba following the mountains north-east, and also in the Philippines. High levels of exploitation have resulted in populations being reduced to very low levels in the Philippines. In Sumatra the timber continues to be extracted. The effects on the population here are yet to be confirmed but are not thought to be as severe.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 3091, 6405, 6646, 19093

**Pinus muricata**  
Pinaceae  
Mexico (Baja California), USA (California)  
The species is known from occurrences on Santa Cruz and Santa Rosa Islands in California and further down the Pacific coast in Mexico.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 4966, 7980, 13041

**Pinus nelsoni**  
Pinaceae  
Mexico (Coahuila, Nuevo León, San Luis Potosí, Tamaulipas)  
A unique species widely scattered in small populations on mesas and in high valleys in the Sierra Madre Oriental. Populations are not larger than several hundred mature trees and are restricted to limestone sites. Overgrazing may pose a threat. None of the populations is protected.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 6004, 7980

**Pinus nigra ssp. dalmatica**  
Pinaceae  
Croatia  
Known only from Brac, Hvar, Korcula and Peljesac Islands on the Dalmatian coast, this subspecies occurs in stands above the Aleppo pine forest. There is evidence that this form hybridises with the mainland subspecies. Threats come from overgrazing and habitat degradation.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 5194, 5287, 6004, 7222, 13041

**Pinus peuce**  
Pinaceae  
Albania, Bulgaria, Greece, Yugoslavia  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 4506, 7222, 13041, 13573

**Pinus pinceana**  
Pinaceae  
Mexico (Coahuila, Hidalgo, Querétaro, San Luis Potosí, Zacatecas)  
Trees are scattered in disjunct and small populations in submontane woodland or scrubland. The species is not under any protection anywhere but it occurs widely outside areas where woodland resources are being exploited.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 6004, 7980, 13041

**Pinus radiata var. binata**  
Pinaceae  
Mexico (Guadalupe Is.)  
Two populations exist on Cedros Island and Guadeloupe, which is an uninhabited island 250 km off the mainland. Each contains in the order of 400 mature trees. Regeneration on Guadeloupe is seriously impeded by feral goats. Attempts are being made to eradicate them.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 6004, 7980, 19193

**Pinus radiata var. radiata**  
Pinaceae  
USA (California)  
The type variety of this widely planted species is restricted to three main areas; in Ano Nuevo, Cambria and the Monterey Peninsula. Only half of the historical range remains undeveloped on the Monterey Peninsula. Further land developments, genetic contamination, pine pitch canker disease and forest fragmentation are of some concern.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 7222, 7980, 13041, 19193
Pinus rzedowski
Pinaceae
Mexico (Michoacan)
Three disjunct populations occur on Cerro Chiqueritas, Cerro Ocotoso and Puerto del Pinabete. Their distribution is restricted to limestone outcrops among huge boulders above 2100m. The two smallest populations contain fewer than 50 trees. Fire is a hazard but the trees are respected as being unique and are safe from exploitation.
Assessor: SSC Conifer Specialist Group
Refs: 6004, 6541, 7980, 12985

Pinus squamata
Pinaceae
China (Yunnan)
Discovered in moist montane woodland in Qiaojiatian in 1991 and described a year later, the species is so far known from a total population of 20 trees. More fieldwork is needed to establish the health and status of this population and whether there are any more subpopulations in the vicinity. The closest relative of the taxon is P. bungeana, which occurs 500km to the south.
Assessor: SSC Conifer Specialist Group
Refs: 13041

Pinus strobus var. chiapensis
Pinaceae
GU B1+2b
Guatemala, Mexico (Chiapas, Guerrero, Oaxaca, Puebla, Veracruz)
A valuable timber tree, now restricted to small remnant populations in mixed or broadleaf montane forests. Overexploitation and the subsequent degradation and changes in the forest vegetation have caused the decline.
Assessor: SSC Conifer Specialist Group
Refs: 3951, 6004, 7980, 13041, 18751

Pinus tabuliformis var. henryi
Pinaceae
China (Hubei, Shaanxi, Sichuan)
Assessor: SSC Conifer Specialist Group
Refs: 374, 11191, 13041

Pinus taiwanensis var. damingshanensis
Pinaceae
China (Guangxi, Guizhou)
An endemic to the Damingshan.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

Pinus tecunumanii
Pinaceae
VU A2c
Belize, El Salvador, Guatemala, Honduras, Mexico (Chiapas, Oaxaca), Nicaragua, Panama
A tree increasingly exploited for its quality timber. Although the exact limits of its range are imperfectly known, the species is found in upland valleys and plateaux, often growing on deep rich fertile soil, sometimes forming pure stands. These areas are frequently cleared and replaced by secondary shrubland, with P. oocarpa. Trees are large with a notably straight bole. The timber is highly valued in construction work. Plantations have been established but no conservation measures are in place.
Assessor: SSC Conifer Specialist Group
Refs: 7980, 13041, 16772

Pinus torreyana ssp. insularis
Pinaceae
USA (California)
Fewer than 250 trees exist in the coastal chaparral of Santa Rosa Island. The entire population is protected. Coastal abrasion and fires pose threats.
Assessor: SSC Conifer Specialist Group
Refs: 13041, 19193

Pinus torreyana ssp. torreyana
Pinaceae
USA (California)
There is a very small population of fewer than 1000 trees in suburban areas north of San Diego. Most of the population is protected within Torrey Pines State Park but trees on unprotected land are highly vulnerable to fire, recreation activities and urban development. There has been a recent serious infestation of five-spined ips bark beetle in the park, but it is now apparently contained.
Assessor: SSC Conifer Specialist Group
Refs: 13041, 19193

Pinus wangii
Pinaceae
China (Yunnan), Viet Nam
Highly restricted in range and population numbers, the species is confined to evergreen submontane forest on limestone mountains in Xicho and Malipo, south-east Yunnan. There is a threat of continued logging. It is also recorded in Viet Nam but the population there is poorly known.
Assessor: SSC Conifer Specialist Group
Refs: 374, 1818, 11847, 19044

Piper amalago var. variifolium
Piperaceae
Jamaica
This variety is known only from the type, which was collected in Manchester. The species is endemic to Jamaica.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Piper augustum var. cocleanum
Piperaceae
Panama
Although the species ranges from Costa Rica to northern South America, this variant is thought to be endemic to Panama, where it occurs in a number of provinces, mainly in undisturbed rainforest up to 1300m. It is scarce outside protected areas. The taxon’s range closely approaches both national borders and possibly extends into Costa Rica and Colombia, but is recognised there only at the species level.
Assessor: Mitré, M.
Refs: 7980, 16772

Piper cordatum
Piperaceae
Costa Rica, Panama
A lowland rainforest species, well distributed in Panama, particularly in the Canal area and in a number of national parks. In recent years it has also been reported from Costa Rica in Corcovado National Park, where it appears to be common.
Assessor: Mitré, M.
Refs: 7722, 7980, 16772

Species Summaries

427
Piper distigmatum
Piperaeae DD
Panama
A doubtful species known only from the type specimen of 1950.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Piper fimbriatum
Piperaeae LR/nt
Colombia, Costa Rica, Panama
Occurring over a wide altitudinal range, the species is relatively common on the Pacific slopes of Costa Rica, in all mountain areas of Panama and in the Chocó in Colombia. Almost all localities in Panama are in areas of minimal human impact.
Assessor: Mitré, M.
Refs: 16772

Piper lucigaudens
Piperaeae DD
Panama
Common in places, the species is recorded from various provinces in Panama in rainforest, generally at higher altitudes, but ranging from sea level to 2200m. There are a number of occurrences in protected areas and elsewhere in regions that are heavily influenced by human activities.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Piper lucigaudens var. allenil
Piperaeae DD
Panama
A doubtful variant of the species, which is known only from a type specimen collected from Darién Province. It is the only record of the species in the province.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Piper verrucosum
Piperaeae LR/nt
Jamaica
A tree with an occasional occurrence in central parishes in remaining areas of woodland on craggy limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Piptadenia weberbaueri
Leguminosae VU B1+2c
Peru
The species occurs in areas of grassland and shrubland, between 1500 and 2000m in the department of La Libertad.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Piptostigma fugax
Annonaceae VU A1c, B1+2c
Côte d'Ivoire, Ghana, Liberia
A species which can occur in some abundance, at least in Ghana. It is generally confined to wet evergreen forest, especially in upland areas. Much of the forest in this area has been adversely affected by mining, logging and commercial planting operations.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Piptostigma giganteum
Annonaceae VU B1+2c
Nigeria
This species appears to be known only from the Oban Division of the Cross River National Park. Unprotected forest has been extensively logged and cleared for cultivation.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 4977, 11504

Piptostigma oyemense
Annonaceae VU D2
Gabon
A species known only from a collection in Oyem in the north, in an area which has been degraded to some degree. Much of Gabon's extensive forests have not been explored and are now under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 14958, 15790

Pipturus argenteus var. argenteus
Urticaceae VU B1+2c
French Polynesia (Society Is.)
The species occurs on Moorea and Tahiti.
Assessor: Florence, J.
Refs: 14513

Pipturus schaeferi
Urticaceae VU B1+2c
French Polynesia (Marquesas Is.)
Populations are found on the islands of Fatu Hiva, Hiva Oa and Tahuata. The species occurs between 330 and 780m in humid or riverine forest or mesophyllous forest, and also in open dry rocky areas and basalt cliffs. It is relatively scarce and distributed in areas sensitive to degradation.
Assessor: Florence, J.
Refs: 19169

Pisonia donnell-smithii
Nyctaginaceae VU B1+2c
El Salvador, Guatemala
A species occurring in areas of inundated and swamp forest. Little information is available on the conservation status of subpopulations but the habitat has suffered widely from logging, tourism and an expanding human population.
Assessor: World Conservation Monitoring Centre
Refs: 4862, 4974, 19030

Pisonia ekmani
Nyctaginaceae EN B1+2c
Cuba
A doubtful tree taxon found infrequently in Las Tunas and Hoguín Provinces.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Pisonia gracilisens
Nyctaginaceae CR B1+2c
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513
**Pisonia sechellarum**  
Nyctaginaceae  
EN D1  
Paraguay.  
Also is Parana banks.

A species known only from an area of 0.5ha in a valley on Silhouette. The population is estimated to contain 190 trees, many of which represent the same individual and the genetic diversity is believed to be low. The area falls within a forest protected by the Nature Protection Trust of Seychelles. Numerous seeds are set but germination is poor. There has been no success in bringing the species into cultivation either. The tree's main pollinator (Epicroesa sp.) appears also to be its main seed predator.  
Assessor: World Conservation Monitoring Centre  
Refs: 10610, 17229, 19025

**Pisonia siphonocarpa**  
Nyctaginaceae  
DD  
French Polynesia (Society Is.)  
An endemic to Moorea.  
Assessor: Florence, J.  
Refs: 14513

**Pisonia wagneriana**  
Nyctaginaceae  
EN C2a  
USA (Hawaii)  
Endemic to Kauai the species is restricted to forested valleys up to 650m from the Powerline Trail to the Maunahina-Wainiha drainage. It is thought a collection from Honopu Valley on the Napali coast may also represent this species.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

**Pistacia aethiopica**  
Anacardiaceae  
LR/nt  
Eritrea (ex), Ethiopia, Kenya, Somalia, Tanzania, Uganda, Yemen  
In the main part of its range in North and East Africa, the species is fairly abundant. There is an outlying population in Arabia, restricted to Jebelt Iraf on the old North Yemen–South Yemen border. The woodland here is believed to be in good condition, although it may come under threat after the completion of a new road to the area. The tree produces a high-quality gum mastic and damage is frequently incurred from the tapping process. The populations around Nairobi are said to be wiped out from overexploitation. The species is also thought to be extinct in Eritrea.  
Assessor: World Conservation Monitoring Centre  
Refs: 1330, 6396, 19083

**Pistacia cupehuangoensis**  
Anacardiaceae  
VU D2  
Viet Nam  
Apparently endemic to Viet Nam, this shrub or small tree is confined to a single locality in Cuc Phuong, Ninh Binh.  
Assessor: World Conservation Monitoring Centre  
Refs: 848

**Pistacia mexicana**  
Anacardiaceae  
VU A1c  
Guatemala, Mexico  
Occurring in dry montane scrub or pine-oak formations, the species is restricted in altitudinal range and distribution. Populations are recorded from southern Mexico and Guatemala. The habitat is considerably reduced by the effects of growing agriculture and pastoralism.  
Assessor: Ramirez-Marcial, N. & M. Gonzalez-Espinosa  
Refs: 19161

**Pitavia punctata**  
Rutaceae  
EN A1cd  
Chile (Biobio, Maule)  
A species which is known from two regions in central Chile, occurring in moist lowland forest in the Coastal Cordillera. Populations are under threat throughout the area, mainly from logging and forest management activities.  
Assessor: Gonzalez, M.  
Refs: 7980, 11147, 16328

**Pithecellobium gracile**  
Leguminosae  
VU B1+2c  
India (Kerala)  
Known from seven collections, the species occurs in scattered localities of evergreen forest at low to medium elevations.  
Assessor: World Conservation Monitoring Centre  
Refs: 19144

**Pithecellobium grisebachianum**  
Leguminosae  
VU B1+2ac  
Argentina (Jujuy, Salta), Bolivia  
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.  
Assessor: Prado, D.  
Refs: 19122

**Pithecellobium johanseni**  
Leguminosae  
EN C2a  
Belize, Guatemala, Honduras  
A tree of the wet Atlantic lowlands, occurring in Lancettilla Biological Reserve.  
Assessor: Nelson, C.  
Refs: 13995

**Pithecellobium pitihecolobodies**  
Leguminosae  
VU B1+2ac  
Argentina (Chaco, Corrientes), Paraguay  
An uncommon species, restricted to marginal forest along the banks of Rios Paraná and Paraguay. Collections appear to be declining in number and in extent of occurrence. Existing threats to remaining populations include dam construction, tourism and fishing.  
Assessor: Prado, D.  
Refs: 1262, 7980

**Pithecellobium savannarum**  
Leguminosae  
VU D2  
Cuba  
Endemic to serpentine areas in south-east Holguín, the species occurs in a habitat which has been largely replaced by secondary savanna and pastureland. Populations have survived best near watercourses.  
Assessor: Arecos-Mallea, A.E.  
Refs: 16327, 18483, 19149

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*Species Summaries*
**Pithecellobium saxosum**
Leguminosae
Guatemala, Honduras
A thicket species, usually occurring on rocky hillsides or plains, sometimes along creeks.
Assessor: Nelson, C.
Refs: 4974, 13995

**Pithecellobium stenersonii**
Leguminosae
Belize, Guatemala, Honduras
A tree restricted to mixed rainforest on Atlantic slopes.
Assessor: Nelson, C.
Refs: 13995

**Pittosporum aliferum**
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pittosporum artense**
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pittosporum brevispinum**
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pittosporum collinum**
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pittosporum coriaceum**
Pittosporaceae
Portugal (Madeira)
Few individuals are known in the wild, growing in deep ravines in the Laurisilva. A new population has recently been discovered, but total population numbers do not greatly exceed 30 trees. The entire range is contained within the National Park of Madeira, but there are still potential threats from fire and grazing. There is no observed natural seed germination, the only regeneration being vegetative. Efforts are being made to propagate the species, with limited success.
Assessor: World Conservation Monitoring Centre
Refs: 19080, 19131

**Pittosporum dallii**
Pittosporaceae
New Zealand (South Is.)
A small tree confined to montane beech forest in the Tasman Mountains in north-west Nelson. Browsing by deer and possum is heavy.
Assessor: de Lange, P.J.
Refs: 902, 9800, 17637, 19133, 19134

**Pittosporum eriocarpum**
Pittosporaceae
India (Himachal Pradesh, Uttar Pradesh)
A shrub or small tree recorded from Dehra Dun, Mussoorie and Sahastadhara, where it has become so scarce that specific searches for it have failed to locate a single specimen. It was known to grow on hot rocky slopes up to 2400m. Large-scale lime quarrying and degradation of the habitat are likely to have contributed to the decline.
Assessor: World Conservation Monitoring Centre
Refs: 2538

**Pittosporum fairchildii**
Pittosporaceae
New Zealand (North Is.)
This small tree is endemic to the Three Kings Islands.
Assessor: World Conservation Monitoring Centre
Refs: 902, 9800, 19133

**Pittosporum gatopense**
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pittosporum goetzii**
Pittosporaceae
Tanzania
This species is restricted to the Uluwuru Mountains, where it occurs over 2100m in moist evergreen forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5204, 10961

**Pittosporum gomonenense**
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pittosporum linearifolium**
Pittosporaceae
Malaysia (Sabah)
Restricted to the Bukit Ampuan area in Ranau, this tree is found in hill forest up to 1200m.
Assessor: World Conservation Monitoring Centre
Refs: 19017

**Pittosporum muricatum**
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Pittosporum napaliense**
Pittosporaceae
USA (Hawaii)
A small tree scattered in disturbed *hala* forest and wetter vegetation up to 550m within an area stretching from Limahuli to Hanakoa Valley in north-western Kauai. The invasion of alien plant species has affected the habitat in many areas.
Assessor: World Conservation Monitoring Centre
Refs: 3372

**Pittosporum obcordatum**
Pittosporaceae
New Zealand (North Is., South Is.)
Occurring on both islands in lowland *kahikatea/matai* forest, populations are scarce and small. In the 1981 Red Data Book of New Zealand there were estimated to be fewer than 50 individuals in total. Regeneration is reported to be good in places.
Assessor: de Lange, P.J.
Refs: 902, 9800, 17637, 19133, 19134
Pittosporum ornatum
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Pittosporum orotchense
Pittosporaceae
French Polynesia (Society Is.)
This species is known only from Tahiti.
Assessor: Florence, J.
Refs: 14513

Pittosporum paniense
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Pittosporum patulum
Pittosporaceae
New Zealand (South Is.)
Recorded as a small tree, the species is known from very few adult plants, occurring in beech forest. Seedlings and saplings are heavily browsed by deer and possums.
Assessor: de Lange, P.J.
Refs: 9800, 19133, 19134

Pittosporum pauciflorum
Pittosporaceae
China (Yunnan)
The species is confined to areas of mixed montane forest in Sichuan and north-west Yunnan. Extensive habitat losses and the popularity of the species in traditional medicine have caused the populations in the wild to decline.
Assessor: Sun, W.
Refs: 19055

Pittosporum raivavaense
Pittosporaceae
French Polynesia (Tubuai Is.)
The species is known only from Raivavae.
Assessor: Florence, J.
Refs: 14513

Pittosporum senacia ssp. wrightii
Pittosporaceae
Seychelles
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.
Assessor: World Conservation Monitoring Centre
Refs: 16212, 17229

Pittosporum silamense
Pittosporaceae
Malaysia (Sabah)
Endemic to Sabah, this small tree of hill forest seems to be restricted to Mount Silam in Lahad Datu District.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Pittosporum stenophyllum
Pittosporaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Pittosporum tanianum
Pittosporaceae
EX
New Caledonia
The species was first discovered in 1988 from two specimens contained within a small patch of sclerophyllous forest on the island of Leprédu. Five years later both individuals died, one because the surrounding soil had eroded away. Intensive searches have failed to uncover additional specimens. Deer plague the remaining fragments of forest, totalling about 5ha. Propagation of cuttings has failed.
Assessor: Jaffré, T. et al.
Refs: 4492, 10351

Pittosporum terminalioides
Pittosporaceae
USA (Hawaii)
A species scattered in dry to moist forest extending over a wide altitudinal range. Populations are recorded on Lanai, Maui and from Kilauea around the leeward side to the Kohala Mountains on Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Pittosporum turneri
Pittosporaceae
New Zealand (North Is.)
A small tree growing on frost flats and in clearings in montane forest. Browsing possums are causing damage to this species.
Assessor: de Lange, P.J.
Refs: 9800, 19133, 19134

Pittosporum virgatum
Pittosporaceae
New Zealand (North Is.)
The species has been recorded from the Auckland area, the Coromandel Peninsula and Great Barrier Island. Several hundred trees remain in the wild along forest margins, in scrubland and regenerating kauri forest. It is locally abundant on Great Barrier Island. Habitat clearance for forestry and farming are responsible for past population declines. Most of the remaining colonies are found on land administered by the Forest Service.
Assessor: de Lange, P.J.
Refs: 902, 9800, 17637, 19133

Pittosporum viridulatum
Pittosporaceae
India (Tamil Nadu)
A small tree, currently known only from a single record from a locality at the base of the Nilgiris.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Placodiscus attenuatus
Sapindaceae
EN A1c, B1+c
Côte d'Ivoire, Ghana
Although supportive evidence to indicate population declines is not available, the loss of the habitat of this species has been severe. It is found in one remnant area of coastal forest, which has been significantly reduced by farming, fuelwood collection and forestry plantations. It also occurs in moist evergreen or riverine forest.
Assessor: Hawthorne, W.
Refs: 8369, 12061, 15251
Placodiscus bancoensis
Sapindaceae    VU A1c, B1+2c
Côte d'Ivoire, Ghana
Found solely in Ghana and neighbouring Côte d'Ivoire, this species is restricted to small areas of moist evergreen forest. Deforestation in this area has been caused by mining, logging and commercial forestry operations.
Assessor: Hawthorne, W.
Refs: 8369, 12061

Placodiscus boya
Sapindaceae    VU B1+2c
Côte d'Ivoire, Ghana
Known only from Ghana and neighbouring Côte d'Ivoire, this species occurs in relatively dry or semi-deciduous forest. It can be quite common but the restriction of the species' range and the severe losses of its habitat render it vulnerable.
Assessor: Hawthorne, W.
Refs: 6127, 12061

Placodiscus bracteosus
Sapindaceae    VU A1c, B1+2c
Côte d'Ivoire, Ghana
A species restricted to areas of moist evergreen forest in Ghana and neighbouring Côte d'Ivoire. Losses in the forest habitat have been incurred from mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 8369, 12061

Placodiscus oblongifolius
Sapindaceae    VU A1c, B1+2c
Ghana
This a common tree in Ghana, but its range is restricted to evergreen forests in the Upper Guinea region. A large part of the habitat has suffered losses because of mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 8369, 12061

Placodiscus paniculatus
Sapindaceae    VU D2
Democratic Republic of Congo
A species of the Forestier Central. It is restricted to a zone in the north-east where it is apparently heavily utilised for arrow-making.
Assessor: Ndjele, M.B.
Refs: 17185, 17951

Placodiscus pseudostipularis
Sapindaceae    EN B1+2c
Côte d'Ivoire, Ghana, Liberia, Sierra Leone
Like P. attenuatus, this species occurs in remnants of coastal forest, where the effects of farming, fuelwood collection and commercial forestry have been severe. It is also found in areas of less disturbed wet evergreen or riverine forest but only in the Upper Guinea region.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Placopoda virgata
Rubiaceae    LR/nt
Yemen (Socotra)
A widespread species of low-altitude woodland and shrubland. It is abundant in places on the lower slopes of limestone mountains and summit plateaux. The populations are under no immediate threat.
Assessor: Miller, A.G.
Refs: 2354, 19083

Pladoroxylon leucadendron
Compositae    CR D1
St Helena
A small spreading tree, which is found in a number of localities between 720 and 800m on the central ridge, particularly at High Peak, from Mount Actaeon to Cuckhold's Point, also at Cabbage Tree Road and Diana's Peak. The total population size is probably less than 50 individuals. Regeneration has been successful where invasive plants, such as New Zealand flax, have been cleared. The genus is monotypic.
Assessor: Cronk, Q.C.B.
Refs: 9954, 19071, 19081

Plagianthus regius var. chathamicus
Malvaceae    LR/nt
New Zealand (Chatham Is.)
This is the correct combination for the taxon P. chathamicus or P. betulinus var. chathamicus. It is a large tree of inland forest, occurring commonly in a few reserves.
Assessor: de Lange, P.J.
Refs: 902, 19133, 19134

Plagiosiphon gabonensis
Leguminosae    LR/nt
Gabon
A species found in areas of closed forest in Lopé Forest Reserve, Ndolé-Koumamejoug, Sindoro and near Lastoursville. The habitat is degraded where there has been logging. Gabon's extensive forests are relatively unexplored and are now under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 19043

Planchnella contermina
Sapotaceae    EN B1+2c
New Caledonia
The genus is no longer considered valid according to Pennington.
Assessor: Jaffré, T. et al.
Refs: 10351, 10781

Planchnella daenikeri
Sapotaceae    EN B1+2c
New Caledonia
The species has been collected from forest on serpentine in a few localities from the north and south, including sites on the lower slopes of Massif Tiebaghi and Mont Kaala. The genus has been transferred to Pouteria.
Assessor: Jaffré, T. et al.
Refs: 10351, 10781, 12630

Planchnella kaalaensis
Sapotaceae    EN B1+2c
New Caledonia
The genus is no longer considered valid according to Pennington.
Assessor: Jaffré, T. et al.
Refs: 10351, 10781
Platanus kerrii
Platanaceae
VU A1c
Laos, Viet Nam
A large tree distributed widely at low altitudes in northern provinces of Viet Nam and Vieng Chan in Laos. It grows near streams on alluvium, gravel soils or mud flats. Natural regeneration and coppicing is strong. The wood is used only on a small scale because of its propensity for cracking and curving. In Viet Nam, the species has become threatened because of the rates of habitat loss.
Assessor: World Conservation Monitoring Centre
Refs: 848, 11530, 15357

Platycladus orientalis
Cupressaceae
LR/nt
China (Gansu, Hebei, Henan, Shaanxi, Shanxi), Iran, Russia, Tajikistan, Uzbekistan
The species is apparently quite widespread but the range is confused by populations which may have been planted. It is very slow-growing.
Assessor: SSC Conifer Specialist Group
Refs: 374, 1956, 13041

Platyesma remyi
Rutaceae
EN C2a
USA (Hawaii)
A shrubby tree found only rarely in rainforest up to 1080m in the Hamakua-Kohala area on Hawaii.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Platymenia foliolosa
Leguminosae
VU A1cd
Brazil (Bahia, Ceará, Espírito Santo, Minas Gerais, Pernambuco)
A widespread species found in diverse habitats and climates, ranging from lowland rainforest to *cerrado*. Selective exploitation of the timber, coupled with poor regeneration, is causing population declines, especially in the coastal areas of Espírito Santo.
Assessor: World Conservation Monitoring Centre
Refs: 4506

Platymiscium albertinae
Leguminosae
CR C2b
Honduras
Of somewhat dubious nomenclature, the species is rarely collected and confined to dry forest along creeks. The population at the type locality has disappeared because of urban development.
Assessor: Nelson, C.
Refs: 13995, 14311

Platymiscium gracile
Leguminosae
VU D2
Peru
Known only from the type collection, the species occurs in lowland forest in the department of San Martin.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Platymiscium pleiostachyum
Leguminosae
EN C1
Costa Rica, El Salvador, Nicaragua
Occurring in remnant dry forests and woodlands on flat ground, including disturbed or secondary forest, the species is scarce, individuals often show signs of genetic degradation and regeneration is largely absent. The timber is attractive and has been heavily exploited in Costa Rica but there is no evidence of it being present in international trade. The species is listed in Appendix II of *CITES*.
Assessor: Americas Regional Workshop
Refs: 4862, 7980, 14487, 19179, 19185, 19186

Platypetrocarpus tanganyikensis
Celastraceae
CR B1+2b, C2b
Tanzania
The species is known only from the dry montane forests of West Usambara. A substantial area of the forest in which it occurred was cleared in the mid-1960s and it may now be extinct. The genus is monotypic. The nearest related genus is *Wimmeria* in Central and South America.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Platydesma crassifolium
Escalloniaceae
LR/cd
New Caledonia
Assessor: Jalifré, T. et al.
Refs: 10351

Pleioceras orientale
Apocynaceae
VU D2
Mozambique
Only two localities are known, where the species occurs in lowland dry evergreen forest and deciduous coastal forest on sand. One is within 200m of a new railway line.
Assessor: World Conservation Monitoring Centre
Refs: 18965

Pleioferia canariensis
Myrsinaceae
VU C2a
Spain (Canary Is.)
Known only from Gran Canaria and Tenerife, the species exists in fragmented populations in inaccessible areas of dry woodland. It is listed in government legislation of 1991.
Assessor: Bahares, A. et al.
Refs: 19022

Pleiospermium longisepalum
Rutaceae
VU B1+2c
Malaysia (Sabah)
Endemic to Sabah, the species is found in primary and secondary inland forest up to an elevation of 1300 m. It is located in the foothills and low mountainous regions of Kota Marudu, Ranau and Tambunan Districts and on the offshore islands of Pulau Banggi and Pulau Bohayaan.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Pleodendron macranthum
Canellaceae
CR D1
Puerto Rico
A small tree of wet to moist submontane forest. Only three populations are known, accounting for 10-12 individuals. There are two individuals in El Yunque. The rest are found in Rio Abajo State Park.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124, 17540
**Pleomele auwahensis**
Draecenaceae  
USA (Hawaii)
A species restricted to remnants of lowland dry forest in central Molokai and in more moist forest in Makawao and Olinda on Maui.
Assessor: World Conservation Monitoring Centre  
Refs: 3372

**Pleomele fernaldii**
Draecenaceae  
USA (Hawaii)
Endemic to Lanai, the species is confined to remaining patches of lowland dry forest.
Assessor: World Conservation Monitoring Centre  
Refs: 3372

**Pleomele forbesii**
Draecenaceae  
USA (Hawaii)
The main population is found in various lowland forest types in the Waianae Mountains on Oahu. There are occasional occurrences also in the Koolau Mountains.
Assessor: World Conservation Monitoring Centre  
Refs: 3372

**Pleomele halapepe**
Draecenaceae  
USA (Hawaii)
This is a striking species which rarely flowers. It is restricted to dry and other lowland forest types on Oahu.
Assessor: World Conservation Monitoring Centre  
Refs: 3372

**Pleomele hawaiensis**
Draecenaceae  
USA (Hawaii)
A species of lowland dry forest on lava fields. It is currently recorded from six to eight populations in Puuwaawaa, the Kaloko/Kalaoa area, the Kapua/Kahuku area and on Holei Pali. Population estimates lie between 300 and 400 individuals. The habitat is threatened with conversion for residential or recreational use. Grazers, invasive plants and fire are also problems. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre  
Refs: 3372, 19037

**Pleurothyrium hexaglandulosum**
Laureaeae  
Costa Rica, Panama
Two collections have been made of this understory tree. It occurs in lowland wet evergreen forest in Puntarenas Province in Costa Rica and in Colón in Panama.
Assessor: World Conservation Monitoring Centre  
Refs: 12587, 15719

**Pleurothyrium roberto-andino**
Laureaeae  
Honduras
This species occurs in areas of riverine forest at medium elevations.
Assessor: Nelson, C.  
Refs: 7534, 13995

**Plinia rupestris**
Myrtaceae  
Cuba
An imperfectly known species known only from a single locality in Cerro de Mendoza, Pinar del Rio Province. Apparently the species is surviving precariously in a very threatened area.
Assessor: Areces-Mallea, A.E.  
Refs: 11403, 18485, 19149

**Podadenia thwaitesii**
Euphorbiaceae  
Sri Lanka
A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka. This species appeared to be fairly common during a previous survey, but it was not found at all during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.
Assessor: World Conservation Monitoring Centre  
Refs: 17195, 19112

**Podocarpus acuminatus**
Podocarpaceae  
Brazil (Amazonas), Venezuela
The species occurs in the Sierra de la Neblina, on both the Brazilian and Venezuelan sides, and on Chimánta and south-west Amuri-tepui. All areas are contained within effective national parks.
Assessor: SSC Conifer Specialist Group  
Refs: 13041

**Podocarpus angustifolius**
Podocarpaceae  
Cuba
A very rare tree, up to 10m high, occurring in montane rainforests of Pinar del Rio Province and in the mountain ranges of south-central Cuba. Its habitat is degraded in places and the species seems particularly vulnerable to ecological impact.
Assessor: Areces-Mallea, A.E.  
Refs: 2479, 16327, 19149

**Podocarpus annamiensis**
Podocarpaceae  
China (Guangdong - Hainan), Myanmar, Viet Nam
A tree scattered in forest areas on hillsides and ridges at medium altitudes. Populations confined to the mountains of southern Hainan Island in China are constantly subject to exploitation and have declined. Populations elsewhere are also subject to heavy logging.
Assessor: SSC Conifer Specialist Group  
Refs: 374, 1739, 1818, 5054, 11191, 11530

**Podocarpus atjehensis**
Podocarpaceae  
Indonesia (Sumatra), Papua New Guinea
The species occurs in the Gajo Lands in northern Sumatra and the Wissel Lakes in Papua New Guinea.
Assessor: SSC Conifer Specialist Group  
Refs: 374, 6851, 13041

**Podocarpus borneensis**
Podocarpaceae  
Indonesia (Kalimantan), Malaysia (Sabah)
Assessor: SSC Conifer Specialist Group  
Refs: 374, 1766, 6851, 13041
Podocarpus costalis
Podocarpaceae
Philippines, Taiwan
The species occurs in dry coastal scrubland or low forest in rocky or cliff top locations, mainly in Lanyu Island, Taiwan, and the Batan Islands in the Luzon Strait. The type collection was gathered from Luzon in the Philippines. The natural stands present in Taiwan before 1980 have been reduced to a few individuals as a result of whole plants being uprooted for the horticultural trade. It is also a popular ornamental plant in the Philippines. The species is subject to CITES Appendix I restrictions.
Assessor: SSC Conifer Specialist Group
Refs: 2106, 6469, 10938, 11314, 13041, 19050, 19051

Podocarpus decumbens
Podocarpaceae
VU D2
New Caledonia
A species known from just three sites of high-altitude maquis in areas of high precipitation in the southern ultramafic massifs. All three sites are relatively inaccessible and well protected within Rivière Bleue Provincial Park and Montagne des Sources Nature Reserve.
Assessor: SSC Conifer Specialist Group
Refs: 9631, 12630

Podocarpus deflexus
Podocarpaceae
LR/cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A shrub or small tree of moist montane scrub, which is confined to Gunung Tahan in Pahang, Peninsular Malaysia, and the Gajo Lands in north Sumatra. The former locality is protected within Taman Negara National Park.
Assessor: Chua, L.S.L.
Refs: 374, 6851, 8464, 13041, 19073

Podocarpus dispermus
Podocarpaceae
DD
Australia (Queensland)
The species is confined to the Atherton Tableland in north-east Queensland.
Assessor: SSC Conifer Specialist Group
Refs: 707, 13041, 17200

Podocarpus fasciculus
Podocarpaceae
VU A1cd
Taiwan
Although recognised as an endemic in Taiwan, populations on the Ryukyu Islands in Japan are also considered to belong to this species. In Taiwan populations are found in the north-central region, and in the far south in Tawuscan Nature Reserve. Regeneration is poor.
Assessor: SSC Conifer Specialist Group
Refs: 374, 2106, 15406, 19050, 19051

Podocarpus gibbii
Podocarpaceae
VU D2
Malaysia (Sabah)
The entire range of the species is probably contained within Mount Kinabalu National Park, where it is confined to forest between 1200 and 2400m on ultramafic substrates. The area is well protected but there is a potential threat presented by the attractiveness of the substrate for mining.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6851, 12121, 19125

Podocarpus globulus
Podocarpaceae
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
Assessor: SSC Conifer Specialist Group
Refs: 374, 6851, 13041

Podocarpus guatemalensis
Podocarpaceae
DD
Belize, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Venezuela
A cloud forest species which has come under considerable threat throughout its range. Logging, grazing, increasing settlement and agriculture have brought about large declines in the habitat and reduced populations largely to remote inaccessible places.
Assessor: SSC Conifer Specialist Group
Refs: 374, 730, 3047, 4665, 10217, 13041, 15037, 18751, 19206

Podocarpus lambertii
Podocarpaceae
DD
Argentina (Misiones), Brazil (Bahia, São Paulo)
Assessor: SSC Conifer Specialist Group
Refs: 374, 5112, 5410, 16525, 19127

Podocarpus lauenfelsii
Podocarpaceae
DD
Indonesia (Kalimantan)
Assessor: SSC Conifer Specialist Group
Refs: 374, 6851, 13041, 17855

Podocarpus lophatus
Podocarpaceae
VU D2
Philippines
Known only from two collections from a single locality, the species is confined to the summit of Mount Tapulao in Luzon. No recent reports have been made and it is not known whether the population is still extant.
Assessor: SSC Conifer Specialist Group
Refs: 374, 11314, 19129

Podocarpus matudai
Podocarpaceae
DD
El Salvador, Guatemala, Honduras, Mexico (Chiapas, Puebla, Veracruz)
Assessor: SSC Conifer Specialist Group
Refs: 374, 4974, 5470, 8870, 10217, 13041

Podocarpus micropedunculatus
Podocarpaceae
DD
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
Assessor: SSC Conifer Specialist Group
Refs: 374, 1766, 6851, 13041

Podocarpus nakaii
Podocarpaceae
EN A1ad, C2a
Taiwan
Endemic to Taiwan, the species is restricted to a small area in the centre of the island in Nan Ton County. Populations are small and isolated in areas of
broadleaved evergreen forest up to 1000m, where they are under threat from increasing settlement, forest management and agricultural activities.

**Podocarpus nubigenus**
Podocarpaceae
Argentina (Neüquén), Chile (Aisén, Los Lagos, Magallanes)
A common species of low- to medium-altitude forest. Where it occurs in southern Chile there is the constant threat of logging and commercial forestry activities, e.g. planting eucalypts and Monterey pine.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 4665, 5112, 13041, 15384

**Podocarpus pallidus**
Podocarpaceae
Tonga
An endemic to the east Tongan Islands.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 9695, 13041

**Podocarpus parlatorei**
Podocarpaceae
Argentina, Bolivia, Peru
A cloud forest species threatened mainly by loss of habitat, although also an important commercial timber. Populations in Argentina are very small and scattered. Their exact locations are kept undisclosed for better protection. The species is listed in Appendix I of *CITES*.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 12453, 14040, 19127, 19179, 19185

**Podocarpus pendulifolius**
Podocarpaceae
Venezuela

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 5411, 13041

**Podocarpus polypus**
Podocarpaceae
New Caledonia

**Assessor:** Jaffré, T. *et al.*
**Refs:** 6851, 10351, 12630

**Podocarpus roraimae**
Podocarpaceae
Venezuela
The species occurs on Mount Roraima and the mountains lying on the border between Venezuela and Guyana. The area is protected, although it is under some pressure from tourism.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 5411, 12192, 13041

**Podocarpus rubyi**
Podocarpaceae
Bolivia

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 13661, 19127

**Podocarpus salignus**
Podocarpaceae
Chile (Biobío, La Araucania, Los Lagos, Magallanes, Maule, O'Higgins)
A species which is said to occur abundantly in areas of low- to medium-altitude forest in the central Andes and Coastal Cordillera, extending from Maule to Los Lagos (Regions VII–X). The habitat has been extensively logged and replanted with eucalypts and Monterey pine. Several botanical visits to the area have failed to find a single large mature individual.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 4522, 13041, 16328

**Podocarpus sellowii**
Podocarpaceae
Brazil (Paraná, São Paulo)

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 16255, 16884, 19127

**Podocarpus smithii**
Podocarpaceae
Australia (Queensland)
The entire population is contained within the State Forest Reserve on Mount Lewis near Mossman, where the species is scattered in montane rainforest in summit localities. Felling is illegal without permission.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 3404, 7891, 13041

**Podocarpus spatheoides**
Podocarpaceae
Indonesia (Moluccas), Malaysia (Peninsular Malaysia), Papua New Guinea, Solomon Islands (South Solomon)
The species is known from occurrences on Mount Ophir in Peninsular Malaysia, Morotai in the north Moluccas, Rossel Island in the Louisiade Archipelago of Papua New Guinea, and the Solomon Islands.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 6851, 13041, 16612

**Podocarpus subtropicalis**
Podocarpaceae
China (Sichuan, Yunnan)
The species is known only from Mount Omei in Sichuan and Yunnan.

**Assessor:** SSC Conifer Specialist Group
**Refs:** 374, 13041

**Podocarpus urbanii**
Podocarpaceae
Jamaica
The species is common to locally dominant in the montane rainforests of the Blue Mountains. At very high altitudes it is one of the commonest trees. Large populations exist on the Grand Ridge and in southern catchments. It is less common where slopes are steep or unstable.

**Assessor:** Bellingham, P.
**Refs:** 374, 2479, 5214, 19116

**Poecilanthe ovalifolia**
Leguminosae
Suriname
A rainforest tree, known only from an area along the Tapanahony River.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 6493, 19196

**Poecilanthe parviflora**
Leguminosae
Argentina (Buenos Aires, Misiones), Brazil
Information is limited, but indicates that the species is endemic to an area extending from northern Argentina
into the Rio Uruguay valley in Brazil.
Assessor: Prado, D.
Refs: 1262, 7134

**Poeciloneuron pauciflorum**
Guttiferae
India (Kerala, Tamil Nadu)
This species was collected just two or three times in 19th century from areas of evergreen hill forest in Travancore and Tinumelveli. It was once a useful timber. The habitat has been severely reduced in extent and recent botanical surveys have failed to locate any specimens. It is not known for certain whether the species is now extinct.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

**Poeciloneuron angustissima**
Annonaceae
Malaysia (Peninsular Malaysia), Singapore, Viet Nam?
Occurring in lowland forest below 100m, this species is known from localities in Johore and Bukit Timah Forest Reserve in Singapore. More information is needed to consolidate the species’ occurrence in Viet Nam.
Assessor: World Conservation Monitoring Centre
Refs: 9199, 11530, 17140, 19073

**Polyalthia elmeri**
Annonaceae
Philippines
This tree is endemic to Palawan, located in thin forests near seashore. The main island is a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

**Polyalthia glabra**
Annonaceae
CR B1+2c
Malaysia (Peninsular Malaysia)
Known only from two herbarium specimens, this tree was collected in lowland forest. The localities, one in Penang and the other in Malacca, are no longer forested.
Assessor: Kochummen, K.M.
Refs: 19073

**Polyalthia hirtifolia**
Annonaceae
CR B1+2c
Malaysia (Peninsular Malaysia)
A lowland forest species, known only from a single collection from Pulau Betong Reserve in Penang. The area is threatened by increasing settlement and it is not certain whether this species still exists.
Assessor: Kochummen, K.M.
Refs: 19073

**Polyalthia pachyphylla**
Annonaceae
DD
Malaysia (Peninsular Malaysia)
A lowland forest tree, recorded only from Larut in Perak. Its exact location is unknown.
Assessor: Kochummen, K.M.
Refs: 8464, 19073

**Polyalthia palawanensis**
Annonaceae
VU B1+2c
Philippines
A tree endemic to Palawan, found on dry forested slopes at low altitude. The main island is a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

**Polyalthia rufescens**
Annonaceae
EN B1+2c
India (Kerala, Tamil Nadu)
A timber-yielding species of evergreen hill forest in the southern end of the Western Ghats. Populations are recorded from Cochin and Travancore in Kerala and Titumelveli in Tamil Nadu. Cutting of the trees and habitat clearance for the cultivation of commercial crops have caused population declines.
Assessor: World Conservation Monitoring Centre
Refs: 4799, 19144

**Polyalthia shenduruni**
Annonaceae
EN B1+2c
India (Kerala)
A medium-sized tree collected only from a small area of submontane evergreen forest in the Agasthyamalai Hills on the Kerala/Tamil Nadu border. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Polyceratocarpus scheffleri**
Annonaceae
VU B1+2b
Tanzania
Until recently this tall tree was known only from a few collections from the East Usambara Mountains. It has been subsequently discovered, in small populations, on the northern Uluguru and Udzungwa Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5204, 9302, 11631

**Polylepis besseri ssp. besseri**
Rosaceae
VU A1ac, B1+2c
Bolivia
A subspecies which frequently hybridises with related species. It is confined to Cochabamba and Chuquisaca, where it occurs in small stands totalling no more than a few tens of square kilometres between 3000 and 4100m. Burning activities, combined with overgrazing, soil erosion and firewood collection, continue to have a serious impact on remaining populations.
Assessor: World Conservation Monitoring Centre
Refs: 3104, 19020, 19067

**Polylepis besseri ssp. incarum**
Rosaceae
VU B1+2c
Bolivia, Peru
A small tree growing in large stands on limestone hills, confined mainly to the northern part of the Titicaca basin, where it is the only naturally occurring Polylepis. Other Polylepis species have been planted in the area and the subspecies readily hybridises with P. racemosa ssp. triacontandra. Populations in Bolivia may all be planted. It has been estimated that the stands cover 166km² in total. Growth rates are fast and the tree is a good candidate for reforestation programmes.
Assessor: World Conservation Monitoring Centre
Refs: 3104, 19067

**Polylepis besseri ssp. subtsalpida**
Rosaceae
VU A1ac, B1+2c
Bolivia
This subspecies is variable and readily hybridises with other Polylepis in its range. It is endemic to areas of
montane forest above 3000m in central Bolivia. Fires and overcutting are the main causes of concern.

Assessor: World Conservation Monitoring Centre
Refs: 3104, 19020, 19067

*Polylepis crista-galli*
Rosaceae  VU A1ac, B1+2c  Bolivia
This species was included within *P. besseri*. It is believed to be of hybrid origin. Small stands, totalling less than 100km² in area, occur in central to south-east Bolivia above 3200m. At lower elevations, down to 2500m, it is found in mixed *Podocarpus–Alnus* forest.

Assessor: World Conservation Monitoring Centre
Refs: 3104, 19020, 19067

*Polylepis hieronymi*
Rosaceae  VU B1+2c  Argentina, Bolivia
A small tree occurring in restricted areas of *Podocarpus–Alnus* forest in central and south-east Bolivia and north-west Argentina. Unusually for the genus, it readily colonises open and disturbed areas, where it is soon supplanted by slower-growing trees. This characteristic makes it useful in the reclamation of eroded slopes.

Assessor: World Conservation Monitoring Centre
Refs: 3104, 6802, 19067

*Polylepis incana*
Rosaceae  VU A1ac  Colombia? (Colombia?), Ecuador, Peru
The species' distribution is disjunct, ranging from north and central Ecuador to Ayacucho in Peru. Occurrences in Colombia and Bolivia are based on taxonomic misconceptions. Trees occur in small stands, pure or mixed with other *Polylepis* species, above 3300m. In all parts of the range the forests are severely affected by burning, as well as cutting for firewood and charcoal production. Commercial logging of this species, along with *P. weberbaueri*, has taken place within the boundaries of Huascarán National Park. The destruction of *Polylepis* forest in Huancavelica, Ayacucho and Cusco has been particularly thorough.

Assessor: World Conservation Monitoring Centre
Refs: 1653, 3104, 6802, 19020, 19067

*Polylepis lanuginosa*
Rosaceae  VU B1+2c  Ecuador
An endemic tree of cloud forest in the Ecuadorian High Andes, currently known to occur between 2750 and 3500m in Bolívar, Chimborazo, Cañar and Azuay Provinces.

Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

*Polylepis microphylla*
Rosaceae  VU B1+2c  Ecuador
A cloud forest shrub, growing to 30cm in height, endemic to Bolívar Province in the Ecuadorian High Andes.

Assessor: World Conservation Monitoring Centre
Refs: 16239, 19119

*Polylepis multiflora*
Rosaceae  VU B1+2c, D2  Peru
The most primitive member of the genus, confined to two main locations, Chachapoyas in Amazonas, and northern Cajamarca. It occurs locally in humid montane forest.

Assessor: World Conservation Monitoring Centre
Refs: 1653, 3104, 6802, 19067

*Polylepis neglecta*
Rosaceae  VU A1ac, B1+2c  Bolivia
Recently discovered, the species occurs in more humid areas of *Podocarpus–Alnus* forest, mainly in the Chuquisaca and Cochabamba area. It rarely forms the dominant component. Continual burning of large areas of vegetation, firewood collection and charcoal production are causing the decline of these forests.

Assessor: World Conservation Monitoring Centre
Refs: 3104, 19020, 19067

*Polylepis pauta*
Rosaceae  VU A1c  Ecuador, Peru
The tallest of the *Polylepis* species. It is restricted to remaining small areas of mixed montane forest between 1800 and 3600m in northern Ecuador and in small areas of eastern central and south Peru. The habitat is threatened mainly by fires, which are lit to support grazing and which frequently encroach upon forested areas.

Assessor: World Conservation Monitoring Centre
Refs: 3104, 6802, 12268, 19067

*Polylepis pepei*
Rosaceae  VU A1c  Bolivia, Peru
A small tree or shrub, rare and confined to a series of localities stretching along the eastern slope of the Cordillera Real from south-east Peru to north-east Bolivia, in the transition zone between humid montane forests and *Puna* grasslands. Its habitat is highly vulnerable to local activities, especially the fires which are induced to support grazing and which frequently encroach upon forested areas.

Assessor: World Conservation Monitoring Centre
Refs: 1653, 3104, 6802, 19020, 19067

*Polylepis racemosa*
Rosaceae  VU A1c  Peru
This is a variable species known from restricted areas of humid montane forest, occurring from northern Peru to north-west Bolivia. Subspecies in Bolivia are described separately. In the northern part of the range specimens are almost exclusively cultivated. Natural stands occur from Huánuco southwards, generally above 3200m. The habitat has greatly declined because of continual burning, cutting for firewood and charcoal production. This species is fast-growing, more ecologically adaptable than others in the genus and a promising candidate for reforestation and agroforestry.

Assessor: World Conservation Monitoring Centre
Refs: 3104, 6802, 12268, 19067
**Polylepis racemosa** ssp. *lanata*
Rosaceae  
Bolivia  
This subspecies intergrades and hybridises with *P. triacanthandra*. It is known only from the wetter parts of the Cordillera Tunari in Cochabamba, where it can form a dominant element of the vegetation. The continual burning of vegetation is clearly causing the decline in the extent of the forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 19067

**Polylepis racemosa** ssp. *triacanthandra*
Rosaceae  
Bolivia  
This subspecies intergrades and hybridises with *P. lanata*. It occurs within a small range above 3600m, at the upper limit of the humid montane forest in the Cordillera de Apolobamba. It is a fast-growing and frequently planted tree. Continual burning, as well as cutting for firewood and charcoal production, are causing declines in the extent of the forest.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 19067

**Polylepis reticulata**
Rosaceae  
Ecuador  
This Ecuadorian endemic inhabits cloud forest between 2850 and 4300m in Napo, Pichincha, Tungurahua, Chimborazo, and Azuay Provinces. It is the only tree in the area. The extent of the habitat is declining, with constant overgrazing and overcutting for firewood and charcoal production.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 16239, 19119

**Polylepis rugulosa**
Rosaceae  
Chile, Peru  
Small and dispersed patches of the species occur in arid regions above 3400m from Arequipa, Moquegua, Tacna and possibly Puno into northern Chile. It is generally the only tree in the area. The extent of the habitat is declining, with constant overgrazing and overcutting for firewood and charcoal production.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 19067

**Polylepis subsericans**
Rosaceae  
Peru  
Locally the species forms dense forest patches above 3400m, concentrated in Lima and adjacent Ica, extending into restricted areas further east. Declines in the extent of the forest are being caused largely by burning and charcoal production.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 6802, 12268, 19020, 19067

**Polylepis tarapacana**
Rosaceae  
Argentina, Bolivia, Chile, Peru  
A small tree or shrub found only in sparse and scattered stands in the volcanic Western Cordillera in the border regions of Bolivia, Peru and Chile. It is probably the only tree in the world growing up to altitudes of 5200m. Locally it is of great importance as a source of firewood and even of construction timber. Populations seriously declined in the past (more than three generations ago) but their present status appears to be stable.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 6802, 7980, 19020, 19067

**Polylepis tomentella** ssp. *incanoides*
Rosaceae  
Bolivia  
A common tree, usually dominating, in a small area of forest, totalling about 20km², between 2500 and 3400m in the Cochabamba area. Burning activities are a major threat to the habitat.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 19067

**Polylepis tomentella** ssp. *nana*
Rosaceae  
Bolivia  
A tiny shrub found in a very restricted mountainous locality, south-east of Cochabamba in northern central Bolivia. It occurs in degraded woodland, covering an area of just 75ha, where it is affected by firewood collection and domestic grazing.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 19020

**Polylepis tomentella** ssp. *tomentella*
Rosaceae  
Bolivia  
A variable subspecies. It is relatively widespread, occurring in dispersed stands between 3200 and 4500m in south-east Bolivia extending into north-west Argentina. There are some large stands, up to 60km² in area, growing on lava and pumice where they are safe from burning.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 19020, 19067

**Polylepis weberbaueri**
Rosaceae  
Ecuador, Peru  
The distribution of this species is disjunct. Populations occur in humid montane forest above 3000m in central and south-west Ecuador, and in Peru in the north-west and further south in the Cordillera Blanca and Cuzco-Apurimac area. The species is particularly sensitive to burning. A forest covering 20km² in Cuzco was completely destroyed by burning two years ago. Remaining stands are almost exclusively reduced to boulder-scree, stream ravines and rock ledges, where they are sheltered from most fires. Both this species and *P. incana* are being logged inside Huascarán National Park.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3104, 6802, 12268, 19020, 19067

**Polyscias aemiliguineae**
Araliaceae  
Réunion  
**Assessor:** Strahm, W.  
**Refs:** 12470, 16426, 2019

**Polyscias dichroostachya**
Araliaceae  
Mauritius  
**Assessor:** Strahm, W.  
**Refs:** 19120, 16426, 19208
**Polyscias farinosa**
Araliaceae  
Ethiopia  
A tree known as the baboon’s chair. It appears to be confined to woodland along river systems. Although it is distributed in an area heavily influenced by agricultural activities and the expansion of the human population, regeneration is apparently good.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1330, 4505, 18523

**Polyscias gracilis**
Araliaceae  
Mauritius  
A small solitary tree occurring in Mondrain, Tamarind Falls and Piton du Fougé Ridge Forest. These areas are heavily invaded by exotic plants and animals. Regeneration is poor and the number of adult trees is estimated to be less than 20. The species has been propagated and reintroduced into Mondrain Nature Reserve.  
**Assessor:** Page, W.  
**Refs:** 1411, 9120, 16426

**Polyscias kikuyuensis**
Araliaceae  
Kenya  
Scattered in distribution but confined to wet upland forest in central Kenya, this species is highly valued at a national level for its timber. Exploitation and habitat loss have led to the species becoming rarer. The Kenyan Forestry authorities maintain plantations of it and also sell the seed. Populations in Mount Kenya National Park and other forest reserves are legally protected.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1308, 6396, 17859

**Polyscias mauritiana**
Araliaceae  
Mauritius  
**Assessor:** Strahm, W.  
**Refs:** 9120, 16426, 19208

**Polyscias neraudiana**
Araliaceae  
Mauritius  
A small tree known from fewer than 15 adult individuals, confined to plateau regions and the flanks of the northern mountain range, including Le Petrin Nature Reserve. The habitat is highly degraded and invaded by exotic species. Although seed production has been observed, there is no regeneration. The population in Le Petrin is fenced and weeded of exotic plants.  
**Assessor:** Page, W.  
**Refs:** 1411, 9120, 16426

**Polyscias nothisii**
Araliaceae  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 3356, 10351

**Polyscias paniculata**
Araliaceae  
Mauritius  
**Assessor:** Strahm, W.  
**Refs:** 9120, 16426, 19208

**Polyscias quintasii**
Araliaceae  
EN B1+2c  
São Tomé & Príncipe (Príncipe, São Tomé)  
An upland forest tree known from a few sites above 1000m on Morro Claudino. Regeneration is reported to be very feeble or non-existent in the five sites where it has been studied. It yields a timber but not of great importance.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2724, 19042, 19111

**Polyscias stuhlmannii var. inarticulata**
Araliaceae  
Tanzania  
A doubtful variety of a restricted-range species. It is scarce and confined to cloud forest at Shame-Mugamba in the West Usambara Mountains. The area has been extensively converted to agriculture.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 5204, 8221

**Polyscias stuhlmannii var. stuhlmannii**
Araliaceae  
Kenya, Tanzania  
This species occurs in the west Usambara and Uluguru Mountains and Teita. Threats exist from localised habitat degradation and changes in land use and management. The Usambara Mountains are the focus of a conservation programme. The split into two varieties may not be warranted.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 6396, 12067

**Polyscias tahitensis**
Araliaceae  
French Polynesia (Society Is.)  
An endemic of Raitatea and Tahiti.  
**Assessor:** Florence, J.  
**Refs:** 14513

**Polyphaeria macrantha**
Rubiaceae  
VU B1+2b  
Tanzania  
Endemic to the East Usambara Mountains, this small tree occurs in moist evergreen forest at medium elevations.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 10961

**Pomaderris hamiltonii**
Rhamnaceae  
LR/nt  
New Zealand (North Is.)  
A small tree occurring sparsely in the North Island.  
**Assessor:** de Lange, P.J.  
**Refs:** 902, 19133

**Pongamia velutina**
Leguminosae  
VU B1+2c, C2a  
Papua New Guinea  
A tree occurring in monsoon forest, Eucalyptus savanna and swamps near mangroves along the coast of the Central Province. Its restricted distribution, coupled with local exploitation, renders the species vulnerable.  
**Assessor:** Eddowes, P.J.  
**Refs:** 19114
Pongamia amygdalina
Leguminosae EN B1+2abc
Madagascar
Known from only two localities, this deciduous woodland species occurs in limestone areas in the Ankaran Massif and Montagne des Français in north Madagascar. Its range extends less than 300km² (*AOO). Populations near Antsiranana are declining as a result of forest degradation and selective felling.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Pongamia viguieri
Leguminosae VU B1+2abc
Madagascar
This species is restricted to limestone outcrops in Namoroka and Bemaraha in west Madagascar. Covering an estimated 2000km² (*AOO), the population is declining, especially in the northern extremity (Mahajunga), where it may now be extinct.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Popowia beddomeana
Annonaceae EN B1+2c
India (Kerala, Tamil Nadu)
A species confined to wet evergreen forest on the upper slopes of the Agasthyamalai Hills at the southern end of the Western Ghats. It grows mostly in inaccessible and undisturbed areas. Some parts have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² forest are now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 2538, 19144

Popowia pauciflora
Annonaceae CR B1+2c
Malaysia (Peninsular Malaysia)
A tree known only from the type collection, found in lowland forest in Malacca. It is uncertain whether this species is still surviving.
Assessor: Kochummen, K.M.
Refs: 19073

Popowia velutina
Annonaceae CR B1+2c
Malaysia (Peninsular Malaysia)
A rare lowland forest tree known only from two collections from Gopeng in Perak. It is uncertain whether the species is still surviving as the locality from which it was collected has recently been developed.
Assessor: Kochummen, K.M.
Refs: 19073

Populus guzmanianensis
Salicaceae EN B1+2c
Mexico (Jalisco)
So far the species is known only from the southern part of the Sierra de Manantlán in Casimiro Castillo, Cuautitlán and Tuxcaayexco, growing in semi-deciduous forest between 800 and 900m.
Assessor: World Conservation Monitoring Centre
Refs: 15436, 19068

Populus ilicifolia
Salicaceae VU B1+2c
Kenya, Tanzania
Restricted to the Tana, Athi and Uaso-Nyiro river systems in Kenya and the Ruvu river system of Tanzania, this species is one of the dominant components of riparian forest. The habitat is greatly reduced and the species is notably scarcer. Seed crops are frequently washed away in annual floods after vegetation clearance. In Kenya the habitat has also been widely irrigated and cleared for settlement programmes. On a local scale the species provides a wood preferred for making dug-out canoes.
Assessor: World Conservation Monitoring Centre
Refs: 4506, 6396, 10961

Populus mexicana ssp. mexicana
Salicaceae VU A1c
Mexico (Chiapas, Oaxaca, Tabasco, Veracruz)
A relatively widespread endemic, occurring in rainforest in the Gulf and Pacific regions.
Assessor: World Conservation Monitoring Centre
Refs: 5993, 17609

Portlandia albiflora
Rubiaceae CR C2b
Jamaica
A small tree or shrub known only from one locality in St Andrews on limestone rocks and cliffs. Similar specimens come from other parts of the island but their identity has not been confirmed.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 7980

Portlandia grandiiflora
Rubiaceae LR/nt
Jamaica
This species is fairly common but confined to thickets and woodlands on limestone. It is cultivated as an ornamental in the Old World.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Portlandia harristii
Rubiaceae VU B1+2c
Jamaica
Recorded from Clarendon and St Ann Parishes, this small tree or shrub occurs locally in thickets and open woodland on limestone.
Assessor: Kelly, D.L.
Refs: 5653, 19085

Potameia lotungensis
Lauraceae VU B1+2c
China (Guangdong - Hainan), Viet Nam
In Viet Nam the species is very rare, occurring only between 900 and 1200m in Tam Dao in Vinh Phu in the north. On Hainan Island there are records of the species in Lo Tung.
Assessor: World Conservation Monitoring Centre
Refs: 848

Poupartia borbonica
Anacardiaceae CR C2a
Mauritius, Réunion
The Mauritian population is known from fewer than five adult trees found in dry deciduous forest at the bases of the Chamarel range, Mont Brisé and Mont Creole. The species has also been propagated and reintroduced into
Mondrain Nature Reserve. A few plants are grown in a nursery and elsewhere on Île aux Aigrettes. Information is required on the population in Réunion.

Assessor: Page, W.
Refs: 1411, 9120, 16426

Poupartia pubescens
Anacardiaceae
Mauritius
Occurring as an occasional species in the south-west and lower eastern mountain ranges, fewer than 250 adult trees are believed to exist. Browsing of the seedlings by exotic deer is limiting regeneration.

Assessor: Page, W.
Refs: 1411, 9120, 16426

Pourouma hirsutipetiolata ssp. hirsutipetiolata
Cecropiaceae
VU B1+2c
Colombia
Assessor: Calderon, E.
Refs: 7980, 19069

Pourouma melinonii ssp. glabrata
Cecropiaceae
VU B1+2c
Colombia, Panama
Assessor: Calderon, E.
Refs: 7980, 19069

Pourouma oraria
Cecropiaceae
VU C1
Colombia, Panama, Peru
In Panama only two old collections are known but localities are unspecified. More recently the species has been identified in Colombia, occurring quite commonly in primary forest in Chocó, Boyacá, Valle and other regions. The species has been recorded in Peru, but not frequently. The habitat is declining through much of the species' distribution as a result of increasing settlement.

Assessor: Mitre, M.
Refs: 7272, 7980, 10481, 16772

Pouteria alnifolia var. sacleuxii
Sapotaceae
VU B1+2c
Tanzania
A variety endemic to Zanzibar Island. It occurs in small areas of moist semi-deciduous forest.

Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Pouteria alitissima
Sapotaceae
LR/cd
Burundi, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Gabon, Ghana, Guinea, Kenya, Nigeria, Rwanda, Sierra Leone, Sudan, Tanzania, Uganda
Occurring in drier areas of semi-deciduous forest, this timber species is widespread throughout the African tropics. The species provides a general-purpose timber and is overexploited in parts of its range. In the timber industry, it is frequently confused with Aningeria robusta (now P. aningeri).

Assessor: African Regional Workshop
Refs: 2361, 6128, 6396, 8369, 10961, 16021

Pouteria amapaensis
Sapotaceae
EN B1+2b
Brazil (Amapá)
A treelet newly described as a species and, at present, known only from upland dry forest in Amapá.

Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria amygdalina
Sapotaceae
VU B1+2c
Belize, Guatemala
The only certain occurrences of this tree are recorded in Petén in Guatemala and adjacent parts of Belize. The species is found in seasonal semi-evergreen forest over limestone in sites up to 800m.

Assessor: World Conservation Monitoring Centre
Refs: 8816

Pouteria andarahiensis
Sapotaceae
EN B1+2b
Brazil (Bahia)
At present, the Macuã region of Bahia is the only site where this species is known. Logging is the most serious threat to its dry forest habitat.

Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria anteridata
Sapotaceae
LR/nt
Venezuela
A newly described species of northern Venezuela. Collections have been made from several localities of lowland rainforest in Barinas, Falcón, Yaracuy and Zulia.

Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria arcuata
Sapotaceae
VU D2
Venezuela
This species is known only from the site where it was first collected in lowland rainforest in Amazonas.

Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria areolatifolia
Sapotaceae
VU D2
Guatemala
Confined to La Cumbre in Petén, the species is found in lowland seasonal semi-evergreen forest.

Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria arguacoensium
Sapotaceae
VU B1+2c, D2
Colombia
A species which appears to be confined to a restricted area on the slopes of the Sierra Nevada de Santa Marta in Cesar. It is restricted to montane rainforest between 1300 and 2300m.

Assessor: Calderon, E.
Refs: 7980, 8816, 19069

Pouteria aristata
Sapotaceae
VU B1+2c
Cuba
A shrub or small tree of coastal thickets and dry thickets on limestone hills. It has been recorded from the provinces of Pinar del Rio, Habana and Oriente and an unconfirmed report suggests it is also present in Las
Villas. The species is rarely seen today because of extensive habitat degradation.
*Assessor*: Areces-Mallea, A.E.
*Refs*: 7980, 8816, 19149

**Pouteria atabapoensis**
Sapotaceae  
**LR/nt**
Brazil (Amazonas), Venezuela  
Only a few collections of this species are known. They originate from the Rio Negro above Manaus in Amazonas, Brazil, and from further north along Rio Atabapo in Amazonas, Venezuela.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 7980, 8816

**Pouteria austen-smithii**
Sapotaceae  
**VU D2**
Costa Rica  
A cloud forest species, endemic to Costa Rica and recorded from a few sites in Alajuela and Cartago.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 7980, 8816

**Pouteria bapeba**
Sapotaceae  
**VU B1+2c, D2**
Brazil (Bahia)
A tree species which is known only from the coastal rainforest of Bahia.
*Assessor*: Pires O'Brien, J.  
*Refs*: 1983, 7980, 8816

**Pouteria beaurepairei**
Sapotaceae  
**LR/cd**
Brazil (Paraná, Rio de Janeiro, Santa Catarina, São Paulo)  
A lowland rainforest treelet, confined to an area where logging activities are intense. A population is known to occur in Ilha do Cordoso State Park in São Paulo.
*Assessor*: Pires O'Brien, J.  
*Refs*: 1983, 7980, 8816

**Pouteria belizensis**
Sapotaceae  
**VU B1+2c**
Belize, Guatemala, Mexico  
A tree known from few collections. Occurrences have been recorded in Tabasco, from Lake Izabal and the Subin River in Guatemala and from an unknown locality in Belize.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 8816

**Pouteria benai**
Sapotaceae  
**VU D2**
French Guiana  
Presumably a lowland forest species, known only from two collections.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 7980, 8816

**Pouteria bonneriana**
Sapotaceae  
**VU D2**
Peru  
This species is known from just two collections from the Cerros Campanquiz in Loreto.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 7980, 8816

**Pouteria bracteata**
Sapotaceae  
**EN B1+2c**
Colombia  
A large tree, newly described as a species and so far known with certainty only from the site where the type specimen was collected in montane forest on the Pacific slopes of Colombia in Valle. It is a large tree. Collections do not seem to have been made in the last 50 years. A second specimen is similar but only tentatively grouped with this species.
*Assessor*: Calderon, E.  
*Refs*: 7980, 8816, 19069

**Pouteria brevensis**
Sapotaceae  
**EN B1+2d**
Brazil (Pará)
Known only from a few collections in Breves, Marajo, this species is confined to non-flooded forest. Increasing settlement of the area poses the most serious threat.
*Assessor*: Pires O'Brien, J.  
*Refs*: 1983, 7980, 8816

**Pouteria brevipetiolata**
Sapotaceae  
**VU D2**
Ecuador  
A newly described species currently known only from the type collection from El Oro on steep forested slopes at about 800m.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 7980, 8816

**Pouteria brevipes**
Sapotaceae  
**VU D2**
Guatemala  
Confined to a single known population in La Cumbre in Petén, the species is a component of seasonal semi-evergreen forest dominated by *Manilkara zapota*.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 7980, 8816

**Pouteria buenasaventurensis**
Sapotaceae  
**LR/nt**
Colombia, Panama  
Ranging from sea level to 2000m, the species occurs in two main areas of wet rainforest: one in Panama in adjacent Colón and Panamá Provinces, the other in Colombia on the Pacific side in Norte de Santander and Valle.
*Assessor*: World Conservation Monitoring Centre  
*Refs*: 8816

**Pouteria bullata**
Sapotaceae  
**VU B1+2c**
Brazil (Paraná, Rio de Janeiro, São Paulo)  
A tree which is restricted to coastal rainforest, up to 900m. Relatively few collections have been made and the continuing clearance of the habitat poses a serious threat to any remaining populations. The fruit is harvested locally.
*Assessor*: Pires O'Brien, J.  
*Refs*: 1983, 7980, 8816

**Pouteria butyrocarpa**
Sapotaceae  
**EN B1+2b**
Brazil (Bahia, Espírito Santo)  
A large tree confined to a small area of wet coastal
forest between southern Bahia and Espírito Santo. It is harvested locally for the fruit, oil and wood.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria calistophylla**  
Sapotaceae  
Costa Rica, Panama  
Occurring in remnants of lowland forest, the species is scattered in several localities in Costa Rica and Panama.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8816

**Pouteria canaimaensis**  
Sapotaceae  
Venezuela  
A shrub or small tree, which is known from a few sites of shrub savanna and periodically flooded areas in Bolivar.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria capacifolia**  
Sapotaceae  
LR/nt  
Ecuador  
Confined to areas of lowland rainforest up to 700m, the species is found in a small area of Pacific Ecuador in Los Ríos, where it is recorded from Río Palenque Biological Station, and Pichincha. It is sometimes very common in pasture, where it is protected as a shade tree.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria chirimca**  
Sapotaceae  
VU D2  
Panama  
Information on this species may not be complete. Collections have been made from the provinces of Chiriquí and the Canal Zone from remaining areas of wet lowland forest. There is a possibly erroneous record from Costa Rica in the Flora of Panama checklist.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8816

**Pouteria choconensis**  
Sapotaceae  
DD  
Colombia  
There is very little information on this species, there being only a single incomplete herbarium specimen. It was found in tall rainforest in the Chocó region in 1946.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria cicatricata**  
Sapotaceae  
LR/nt  
Brazil (Amazonas, Rondônia)  
A newly described species. Historical collections indicate the species' range to be greater than 20,000 km². More recent collections suggest there has been a reduction in this area.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria cinnamomea**  
Sapotaceae  
CR B1+2c  
Peru  
Information on the species is poor. It is known only from the type collection made at the turn of the century in Cuzco, where it occurred in subxerophilous forest. Much of the vegetation in the area is under threat from burning and clearance. The current status of the species, if it is still extant, is unknown.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria coelomatia**  
Sapotaceae  
EN B1+2c  
Brazil (Bahia)  
The type collection occurs in a farming area and is the only known occurrence of this species.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria collina**  
Sapotaceae  
VU D2  
Colombia, Ecuador  
A Pacific coast tree with two populations, occurring in lowland rainforest in the Valle del Cauca in Colombia and from submontane rainforest in Alto Tambo in Esmeraldas in Ecuador.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria congestifolia**  
Sapotaceae  
VU B1+2c  
Costa Rica, Panama  
Occurring in montane rainforest, the species is found along the continental divide of Costa Rica and Panama. Collections have been made from more than five localities in Alajuela, Cartago and Heredia in Costa Rica and in Chiriquí and Coclé in Panama.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria crassiflora**  
Sapotaceae  
VU B1+2c, D2  
Brazil (Amapá)  
A species which is known only from Amapá in non-flooded forests. The most serious threat to the species is logging.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria cubensis**  
Sapotaceae  
EN B1+2c  
Cuba  
A Cuban endemic confined to seasonal rainforest and the lowest elevation wet montane rainforest in the Sierra Maestra mountain range between 200 and 900m. The habitat of this rare tree has been degraded in many places.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980, 8816, 19149

**Pouteria decussata**  
Sapotaceae  
EN B1+2c  
Brazil (Pará)  
A few collections of this dry forest tree are known from north-west Pará. Records show it occurs in some abundance in Jari on terraced hills, but its distribution is highly restricted.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria dictyoneura**  
Sapotaceae  
VU B1+2c  
Cuba  
The Cuban form of a Caribbean species, occurring
infrequently in remaining areas of lowland semi-deciduous forest over limestone. The tree has been overexploited for its valuable timber and a great part of its habitat has been deforested.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 8816, 19149

*Pouteria espiniae*
Sapotaceae
CR B1+2c
Colombia
This species is apparently confined to a small area of Magdalena on the slopes of the Santa Marta range, where it occurs in montane forest above 2000m.
Assessor: Calderon, E.
Refs: 7980, 8816, 19069

*Pouteria euryphylla*
Sapotaceae
CR B1+2c
Panama
Known only from the type collection, the species is recorded from rainforest at about 275m in Chiriquí.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Pouteria extaminodia*
Sapotaceae
EN B1+2b
Brazil (Amapá)
A newly described species, at present known only from the site where it was first collected in non-flooded forest along River Vatuma.
Assessor: World Conservation Monitoring Centre
Refs: 1983, 7980, 8816

*Pouteria filiformis*
Sapotaceae
VU D2
Costa Rica
A newly described species, so far known only from the type gathering in Limón in Atlantic rainforest in the Hito Cerere Biological Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Pouteria fossicola*
Sapotaceae
VU B1+2c
Costa Rica, Panama
Distributed from central Costa Rica to central Panama, the species occurs in lowland evergreen forest and seasonal semi-evergreen forest up to 600m. Collections have been made from Cartago, Puntarenas and San José Provinces in Costa Rica and Cocle, Colón and Barro Colorado Island in Panama.
Assessor: World Conservation Monitoring Centre
Refs: 8816

*Pouteria foveolata*
Sapotaceae
VU D2
Costa Rica, Nicaragua
A buttressed tree, newly described as a species. It is confined to two main areas, in Chontales, Nicaragua, and in Manuel Antonio National Park, Costa Rica. Both are near sea level in lowland rainforest.
Assessor: World Conservation Monitoring Centre
Refs: 8816

*Pouteria fulva*
Sapotaceae
EN B1+2d
Brazil (Amazonas)
A species, newly described, known from just two collections from non-flooded lowland forest in the Rio Solimões area in Amazonas.
Assessor: Pires O’Brien, J.
Refs: 1983, 7980, 8816

*Pouteria furcata*
Sapotaceae
VU B1+2c
Brazil (Maranhão, Piauí)
A newly described species, scattered in dry lowland forest and *cerrado*. Some areas are under threat from expanding developments and land settlement.
Assessor: Pires O’Brien, J.
Refs: 1983, 7980, 8816

*Pouteria gabrieliensis*
Sapotaceae
LR/nt
Brazil (Amazonas), Colombia, Venezuela
Although occupying a relatively wide range in the Colombian, Venezuelan and Brazilian Amazon, the species is actually known from only a few collections from *várzea* forest below 200m.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Pouteria gigantea*
Sapotaceae
VU D2
Ecuador
A canopy tree known only from lowland rainforest in the Río Palenque Science Center in Pacific coastal Ecuador.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Pouteria glauca*
Sapotaceae
VU D2
Peru
A newly described species of lowland swampy forest. So far it has been collected from only two sites in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Pouteria gracilis*
Sapotaceae
VU D2
Peru
A newly described species, which has been recorded only from the site where it was first collected in Tocache Nuevo in San Martin in 1972. The population was found in rainforest between 700 and 800m.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Pouteria grandiflora*
Sapotaceae
LR/nt
Brazil (Bahia, Pernambuco, Rio de Janeiro)
A species distributed in *restinga*, ranging over an area greater than 20,000 km², assuming that populations still exist in the collection sites. Habitat clearance has been extensive and further evidence may reveal that the species has been lost from some of these sites.
Assessor: Pires O’Brien, J.
Refs: 1983, 7980, 8816

*Pouteria hotoreana*
Sapotaceae
EN B1+2c
Haiti, Puerto Rico
Populations have been recorded in forest over limestone.
at about 1200m in the Massif de la Hotte in Haiti and in Maricao Insular forest in Puerto Rico.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7931, 8816

*Pouteria izabalensis*

Sapotaceae     LR/nt

Belize, Guatemala, Honduras, Nicaragua

Ranging from Guatemala to Nicaragua, the species occurs in well-drained Atlantic forest near sea level. The wood has been used for railway sleepers in Guatemala.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 8816

*Pouteria juruana*

Sapotaceae  EN B1+2c

Brazil (Amazonas), Colombia

The species is known from two sites of lowland rainforest in western Amazonia in Brazil and in the department of Putamayo in Colombia. More specimen data are needed to confirm its taxonomic status.

**Assessor:** Calderon, E.

**Refs:** 1983, 7980, 8816, 19069

*Pouteria kaiteuensis*

Sapotaceae  VU D2

Guyana

A newly described species, which appears to be confined to a single population on the Kaieteur Plateau in savanna and low savanna forest.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

*Pouteria krukovii*

Sapotaceae  VU D2

Brazil (Acre), Peru

Known only from two collections, the species is found in lowland, periodically flooded forest at the mouth of Macauhan in Acré, and from Yanomo Explorama Camp in Loreto, Peru.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

*Pouteria latianthera*

Sapotaceae  EN B1+2c

Brazil (Amapá)

A newly described species. At present it is known from only two sites in Amapá, in mixed lowland forest.

**Assessor:** Pires O'Brien, J.

**Refs:** 1983, 7980, 8816

*Pouteria leptopedicellata*

Sapotaceae  VU D2

Costa Rica, Panama

Confined to lowland and submontane rainforest, the species has been recorded in just two isolated sites: one in Heredia in Costa Rica and the other from the Santa Rita Ridge in Panama.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 8816

*Pouteria longifolia*

Sapotaceae  VU B1+2c

Bolivia, Peru

A tree of montane forest, occurring up to 900m, in Amazonian Peru and Bolivia. Populations have been recorded in two or three widely separated sites, one in San Martin in Peru, the others in La Paz in Bolivia.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

*Pouteria lucens*

Sapotaceae  VU B1+2c

Brazil (Amazonas)

A tree which is known only from *igapó* forest from upper Rio Negro and Rio Japurá regions.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 1983, 7980, 8816

*Pouteria macrohensis*

Sapotaceae  EN B1+2c

Brazil (Bahia, Rio de Janeiro)

The type specimen was collected in 1910 from Rio de Janeiro. Otherwise known from Bahia, the species occurs in *restinga* vegetation and inland forests.

**Assessor:** Pires O'Brien, J.

**Refs:** 1983, 7980, 8816

*Pouteria macrocarpa*

Sapotaceae  VU A1a

Brazil (Amazonas, Mato Grosso, Pará), Colombia, Costa Rica

The range of the species is extensive geographically and altitudinally. However, populations are rare and declining.

**Assessor:** Pires O'Brien, J.

**Refs:** 1983, 8816

*Pouteria maguirei*

Sapotaceae  LR/nt

Brazil (Amazonas), Venezuela

A component of *igapó* forest in southern Venezuela extending to the upper Rio Negro in Brazil.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 8816

*Pouteria micrantha*

Sapotaceae  EN B1+2c

Cuba

A small tree apparently confined to submontane serpentine forest in what is known as the *manacles* in the Sierra de Nipe, Oriente Province. The species is poorly known and has been rarely collected.

**Assessor:** Areces-Mallea, A.E.

**Refs:** 7980, 8816, 19149

*Pouteria microstrigosa*

Sapotaceae  VU B1+2c

Brazil (Bahia, Espírito Santo, Mato Grosso)

A newly described species with a restricted distribution in lowland rainforest, ranging from Bahia to Espírito Santo. The habitat has been extensively logged and cleared.

**Assessor:** Pires O'Brien, J.

**Refs:** 1983, 7980, 8816

*Pouteria minima*

Sapotaceae  EN B1+2c

Brazil (Amazonas)

A newly described species, the only records of which occur in two sites in the Rio Vaupes region in western Brazilian Amazonia.

**Assessor:** Pires O'Brien, J.

**Refs:** 1983, 7980, 8816
Species Summaries

Pouteria moaensis
Sapotaceae  EN B1+2c
Cuba
A small tree known only from Sierra de Moa in Oriente Province, the site where it was first gathered in 1955. The main threat to the species is from the mining of the ferritic soils.
Assessor: Areces-Mallea, A.E.
Refs: 1983, 7980, 8816, 19149

Pouteria nemorosa
Sapotaceae  VU B1+2c
Bolivia
A species with an anomalous floral structure compared to the rest of the family. A few recent collections now indicate that the species is not as rare as was once assumed.
Assessor: World Conservation Monitoring Centre
Refs: 1983, 7980, 8816

Pouteria nudipetala
Sapotaceae  VU D2
Brazil (Amazonas), Peru
Only three collections have been made of this species. They originate from periodically flooded or *várzea* forest at the mouth of Rio Embira in Amazonas, Brazil, and from upland forest in Loreto, Peru.
Assessor: World Conservation Monitoring Centre
Refs: 1983, 7980, 8816

Pouteria oppositifolia
Sapotaceae  VU B1+2c
Brazil (Amapá, Pará)
A species which appears to occur in both moist and drier lowland forest types. It is harvested locally for the timber.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria oxypetala
Sapotaceae  EN B1+2c
Brazil (São Paulo)
Currently known from just two collections taken from lowland secondary forest, this newly described species is threatened most seriously by increasing habitat clearance and settlement of the area.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria pachycalyx
Sapotaceae  CR B1+2d
Brazil (Espírito Santo)
A newly described species. Present information suggests that it is confined to lowland rainforest on sandy soils in Linhares Forest Reserve.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria pachyphylla
Sapotaceae  VU B1+2c
Brazil (Amazonas, Rondônia)
A tree species which is confined to the Brazilian Amazon, where it occurs in periodically and permanently flooded forest. The habitat is generally threatened by logging activities.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria pallens
Sapotaceae  CR B1+2c
Brazil (Rondônia)
A newly described species, currently known only from the site where it was first collected in 1963 from lowland forest at Porto Velho.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria pollida
Sapotaceae  EN B1+2c
Dominica, Guadeloupe, Martinique, St Lucia
Endemic to the Windward Islands in the Caribbean, the species is found in lowland rainforest up to 600m. A single population is recorded on each of Dominica, Martinique, St Lucia and Guadeloupe, where the exact locality of the species is unknown. Little rainforest remains on Martinique. The species provides an excellent construction timber.
Assessor: World Conservation Monitoring Centre
Refs: 1983, 7980, 8816

Pouteria peduncularis
Sapotaceae  DD
Brazil (Bahia)
A very poorly known species. The only knowledge of it comes from the herbarium type specimen, which was collected in the last century from a locality which has not been precisely recorded.
Assessor: World Conservation Monitoring Centre
Refs: 1983, 7980, 8816

Pouteria penicillata
Sapotaceae  VU D2
Guyana
This species is known only from the site where it was first collected in 1941 in forest on laterite.
Assessor: World Conservation Monitoring Centre
Refs: 1983, 7980, 8816

Pouteria peruviana
Sapotaceae  VU D2
Peru
Although the species is known only with certainty from the type collection, there may be other collections from the Amazon which belong to this taxon. The type specimen was gathered from rainforest in the Cerros Campanquiz in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1983, 7980, 8816

Pouteria petiolata
Sapotaceae  VU B1+2c, D2
Brazil (Amazonas, Pará)
A newly described species, confined to two localities of non-flooded forests, including one in Ducke Forest Reserve. The most serious threat comes from continuing logging.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

Pouteria pimichinensis
Sapotaceae  LR/nt
Venezuela
This shrub or bushy tree is known only from populations in Amazonas, occurring in savanna and occasionally along flooded river margins.
Assessor: World Conservation Monitoring Centre
Refs: 1980, 8816

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Pouteria pisquiensis
Sapotaceae
Peru
A tree known only from the type specimen, which was collected from lowland rainforest at Ucabali in 1942.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria platyphylla
Sapotaceae
Brazil (Amazonas, Mato Grosso), Peru
A tree of lowland rainforest. Few collections exist, one from Jenaro Herrera Arboretum in Loreto, Peru, and several from Amazonian Brazil.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria polystepala
Sapotaceae
Brazil (Amazonas)
A large tree. Its only known occurrence is at the mouth of the Rio Javari in non-flooded forest.
Assessor: Pires O’Brien, J.
Refs: 1983, 7980, 8816

Pouteria psammophila
Sapotaceae
Brazil (Rio de Janeiro, São Paulo)
A tree of restinga vegetation and granitic outcrops along the Atlantic coast. Large areas of the habitat are being lost to housing, tourist and other developments. The species is recorded in the Ilha do Cardoso State Park in São Paulo.
Assessor: Pires O’Brien, J.
Refs: 1983, 7980, 8816

Pouteria pseudoracemosa
Sapotaceae
Tanzania
A moist lowland forest tree known from three localities in Tanzania. A population is confined to Kimboza Forest Reserve, 4km² of forest in a densely populated area. The demand for land is high but two forest guards prevent illegal encroachment and activities. There are also populations also at low elevations in the East Usambara Mountains and North Udzungwa Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Pouteria puberula
Sapotaceae
Venezuela
A newly described species, known only from the site where it was first collected in 1977 in rainforest at 750m in Miranda.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria pubescens
Sapotaceae
Brazil (Amazonas), Peru
This tree has been collected from just two sites so far, one in the Jenaro Herrera Arboretum in Loreto, Peru, and the other in São Paulo de Olivença in Amazonas, Brazil.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria putamen-ovi
Sapotaceae
Brazil (Rondônia), Peru
A newly described species of non-flooded forest over sand. So far populations have been recorded from two sites in Loreto in Peru, including the Jenaro Herrera Arboretum, and from Rondônia in Brazil.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria retinervis
Sapotaceae
Brazil (Amazonas), French Guiana
Occurring in the Sãuí area of French Guiana and along the Rio Negro in Amazonas, Brazil, the species is found in non-flooded lowland forest.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria rhyochocarpa
Sapotaceae
Mexico (Veracruz)
A newly described species so far known only from Los Tuxtlas Biological Station in central Veracruz, where it occurs in lowland evergreen rainforest over black clay.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 7980, 8816

Pouteria rigida ssp. rigida
Sapotaceae
Brazil (Roraima), Guyana, Venezuela
A small tree or shrub found in sandstone scrub and forest islands in savanna, dwarf mossy forest over sandstone and Bonnetia forest up to 2200m.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria rigida ssp. tomentosa
Sapotaceae
Venezuela
This subspecies is confined to just a few sites of dwarf forest or low scrub on stony mountain slopes in Bolivar and Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria rigidipoda
Sapotaceae
Venezuela
A tree of wet montane forest and shrubby cloud forest, confined to northern Venezuela, occurring in Anzoátegui, Distrito Federal, Monagas and Sucre.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

Pouteria rodriguesiana
Sapotaceae
Brazil (Amapá, Pará), French Guiana, Suriname
A newly described species known from several sites in the Guianas and adjacent parts of Brazil, where it occurs in lowland rainforest, usually on non-flooded land up to 700m.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816
Species Summaries

**Pouteria rufotomentosa**
Sapotaceae  
Guatemala  
A rainforest species, which appears to be confined to Baja Verapaz in Guatemala.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria sclerocarpa**
Sapotaceae  
Colombia, Ecuador, Panama  
A lowland rainforest species, known from scattered collections from the south of Panama in Darién Province and from single sites in Amazonian Ecuador and Colombia.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8816

**Pouteria semecarpifolia**
Sapotaceae  
Dominica, Guadeloupe, Martinique, St Lucia, St Vincent  
An endemic of the Windward Islands in the Caribbean. Populations are recorded in Castle Bruce and St Davis Parish on Dominica, Morne Larcheux and La Trinité on Martinique and sites on Guadeloupe, St Lucia and St Vincent. It is a lowland forest tree and apparently provides good construction timber.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816, 10754

**Pouteria sessilis**
Sapotaceae  
Peru  
A newly described species, currently known only from the type locality in lowland rainforest in Jenaro Herrera Arboretum.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria silvestris**
Sapotaceae  
Costa Rica  
A newly described species, endemic to Costa Rica, where it has been collected twice from lowland rainforest in Heredia.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria sipapoensis**
Sapotaceae  
Venezuela  
A newly described species which, so far, is known from just two collections in forest in southern Venezuela.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria splendens**
Sapotaceae  
Chile (Valparaíso)  
A morphologically distinct member of the genus, confined to the coastal regions of central Chile, where it occurs in rocky ravines and coastal scrub.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816, 11147

**Pouteria squamosa**
Sapotaceae  
Guatemala, Mexico (Oaxaca, Veracruz)  
A species of lowland evergreen forest, occurring in damp valleys and along streamsides. At present only three sites are recorded, one in Izabal in Guatemala and the other two in the Uxpanapa-Chimalapa region between Oaxaca and Veracruz States in Mexico.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5651, 8816

**Pouteria stenophylla**
Sapotaceae  
Brazil (Rio de Janeiro)  
A tree known at one time to be confined to the coastal hill forest of Rio de Janeiro. Although the area has been visited numerous times by botanists, no recent record of the species has been made.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria subsessilifolia**
Sapotaceae  
Brazil (Bahia)  
A treelet which appears to be confined to a small area of sandy *campo rupestre* vegetation, in marshy places, near Mucugê.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria tarapotensis**
Sapotaceae  
Peru  
Apparently a Peruvian endemic, although there are, as yet, unconfirmed reports of the species occurring in Panama. Populations have been recorded from lowland rainforest, sometimes periodically flooded, in Cocha Cashu in Madre de Dios, from the area of the Yurimagunas in Loreto and from Tarapoto in San Martin.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 8816

**Pouteria tarumanensis**
Sapotaceae  
Brazil (Amazonas)  
A species confined to non-flooded forest over sand in the centre of the Brazilian Amazon, especially in the region of Manaus. Logging activities and fires in the area are the most serious threats.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 1983, 7980, 8816

**Pouteria triplarifolia**
Sapotaceae  
Costa Rica  
The species has been recorded from a single location in Puntarenas in wet hill forest at about 600m, near the coast.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Pouteria vernicosa**
Sapotaceae  
Brazil (Amazonas), Peru  
A newly described species, as yet known from just a few collections from lowland rainforest in Huánuco in Peru, and from various localities, including Ducke Reserve in Amazonas, Brazil.  
**Assessor:** Pires O'Brien, J.  
**Refs:** 7980, 8816
**Pouteria villamili**
Sapotaceae  
Philippines  
This species occurs in primary lowland forest on the islands of Luzon and Siargao. Its timber is in short supply but is traded as white nato, together with that of other species of the genus.  
**Assessor:** World Conservation Monitoring Centre  
**Refs.:** 4919, 14573

**Povedadaphne quadriportata**
Lauraceae  
Costa Rica  
**VU B1+2c, D2**  
A species of wet submontane rainforest, known from sites in the San Ramón Forest Reserve, near Ciudad Quesada and east of Río Sarapiquí in Heredia Province.  
**Assessor:** World Conservation Monitoring Centre  
**Refs.:** 2514, 7980, 8816

**Pradosia argentea**
Sapotaceae  
**EX**  
Peru  
This species is known only from the type collection from the Cajamarca area dating back about 180 years. No record of the tree has been made since.  
**Assessor:** World Conservation Monitoring Centre  
**Refs.:** 7980, 8816

**Pradosia atroviolacea**
Sapotaceae  
Brazil (Acre), Colombia, Peru  
**LR/nt**  
A species of lowland periodically flooded or non-flooded forest in western Amazonia.  
**Assessor:** World Conservation Monitoring Centre  
**Refs.:** 7980, 8816

**Pradosia cuatrecasasii**
Sapotaceae  
**VU D2**  
Colombia  
A large buttressed tree of lowland rainforest, currently known from just two collections from Valle.  
**Assessor:** World Conservation Monitoring Centre  
**Refs.:** 7980, 8816

**Pradosia decipiens**
Sapotaceae  
**CR B1+2a**  
Brazil  
The species is known only from the type collection from non-flooded lowland forest in the Rio Taruma region near Manaus.  
**Assessor:** Pires O'Brien, J.  
**Refs.:** 1983, 7980, 8816

**Pradosia glaziovii**
Sapotaceae  
**EX**  
Brazil (Rio de Janeiro)  
Two collections of this species were made in Rio de Janeiro. The area has since been extensively visited and no evidence of the species has been uncovered.  
**Assessor:** Pires O'Brien, J.  
**Refs.:** 1983, 7980, 8816

**Pradosia granulosa**
Sapotaceae  
**VU B1+2b**  
Brazil (Maranhão, Pará)  
A newly described species, which appears to be confined to non-flooded forest in the north of Brazil.  
**Assessor:**  
**Refs.:** 1983, 7980, 8816

The most serious threat is from mining activities.  
**Assessor:** Pires O'Brien, J.  
**Refs.:** 1983, 7980, 8816

**Pradosia kuhlmannii**
Sapotaceae  
**EN B1+2c**  
Brazil (Rio de Janeiro)  
The species is apparently confined to lowland rainforest in Rio de Janeiro, where urban expansion exerts considerable pressure on the habitat. It has been frequently cited from other Brazilian states but these records have not been authenticated and confusion with another taxon is quite possible.  
**Assessor:** Pires O'Brien, J.  
**Refs.:** 1983, 7980, 8816

**Pradosia montana**
Sapotaceae  
**VU D2**  
Ecuador  
A newly described species of deciduous forest recorded from a small area on the dry Pacific slopes.  
**Assessor:** World Conservation Monitoring Centre  
**Refs.:** 7980, 8816

**Pradosia mutisii**
Sapotaceae  
**EX**  
Colombia  
A very poorly known species with no precise data on locality or habitat. It has been described from four collections made in the first half of the century.  
**Assessor:** Calderon, E.  
**Refs.:** 7980, 8816, 19069

**Pradosia subverticillata**
Sapotaceae  
**VU B1+2c**  
Brazil (Amazonas, Pará)  
A tree of the Brazilian central Amazon, known from just a few collections taken from non-flooded forest.  
**Assessor:** Pires O'Brien, J.  
**Refs.:** 1983, 7980, 8816

**Pradosia verrucosa**
Sapotaceae  
**CR B1+2c**  
Brazil (Pernambuco)  
A tree apparently confined to an area of seasonal forest in the Pernambuco Highlands. The habitat is under threat, particularly from agricultural expansion.  
**Assessor:** Pires O'Brien, J.  
**Refs.:** 1983, 7980, 8816

**Premna grandifolia**
Verbenaceae  
**VU B1+2c**  
Côte d'Ivoire  
An endemic of the areas of remaining forest within the region of the Sassandra and Cavally Rivers. The largest part of the population occurs within Tai National Park. Outside the park the forest has been heavily logged and degraded.  
**Assessor:** Assi, A.  
**Refs.:** 2773, 12822

**Premna hans-joachimii**
Verbenaceae  
**VU B1+2b**  
Tanzania  
Currently the species is known only from Milinguru forest. This area has not been visited recently but, if it still exists, it is believed to be 10–20km from Lindi. Specimens that possibly represent the same species have been found on the Rondo Plateau, where 140km² of...
mostly disturbed forest are protected by the activities of a forest management programme.

**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814

**Premna maxima**  
Verbenaceae  
**VU B1+2c, D2**  
Kenya  
A buttressed tree of upland moist evergreen forest, confined to small localities near Meru and Marsabit. The timber is used for making furniture and telegraph poles. The population in the Marsabit National Reserve is protected. The species is also being propagated as part of the Plant Conservation Programme in Kenya.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6396, 10961, 17859

**Premna schliebenii**  
Verbenaceae  
**VU B1+2b**  
Mozambique, Tanzania  
A dry forest tree known from low elevations in the East Usambara Mountains and at Lipindi in Tanzania. The species also occurs in Mozambique.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 10961

**Premna szemaoensis**  
Verbenaceae  
**VU B1+2c**  
China (Yunnan)  
Widely distributed but confined to south and south-west Yunnan, the species is found in sunny open forest between 500 and 1500m. The main cause of population reductions has been overexploitation of the timber, and possibly also of the bark for medicinal use. Regeneration is reported to be poor and few young trees can be found.  
**Assessor:** Sun, W.  
**Refs:** 1818, 11847, 19050, 19055

**Premna tanganyikensis**  
Verbenaceae  
**VU B1+2b**  
Mozambique, Tanzania  
A scendent shrub or small tree. In Tanzania two populations are known from patches of dry coastal forest. One is recorded in the Rondo Plateau, where the little remaining undisturbed forest is protected in a reserve with an active forest management programme, which discourages any illegal activities or encroachment. The other population is found at the Mozambique border at Kitangari. The species is also found in Mozambique.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814

**Prestoea tenuiramosa**  
Palmae  
**LR/nt**  
Brazil (Amazonas), Guyana, Venezuela  
Restricted to the Guyana Highlands, this palm tree grows in cloud forest between 1200 and 2000m.  
**Assessor:** Henderson, A.  
**Refs:** 19118

**Pristopis socotrana**  
Leguminosae  
**VU D2**  
Yemen (Socotra)  
A small tree or shrub which is scattered, occasionally common, in areas of moist submontane woodland. There are no immediate threats.  
**Assessor:** Miller, A.G.  
**Refs:** 2354, 19083

**Prismatomeris andamanica**  
Rubiacaeae  
**CR B1+2c**  
India (Andaman and Nicobar Is. - Andaman Is.)  
Collected from scrub along the fringes of evergreen forest in South Andaman Island, the species has not been found again since it was first discovered. The habitat has declined because of logging and increasing agricultural developments.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4799, 7147

**Pritchardia affinis**  
Palmae  
**CR A1ce+2ce, B1+2abcde, C1+2a**  
USA (Hawaii)  
Confined to an area stretching from South Kona to Punalu‘u, this tree is scattered in lowland open forest on the leeward coast and in inland gulches. About 60 trees are known in the wild, although some of these might be aboriginal. Regeneration is limited. Severe damage is caused by rats and pigs. The species is protected by the US Endangered Species Act.  
**Assessor:** Gemmill, C.  
**Refs:** 19118

**Pritchardia aylmer-robinsonii**  
Palmae  
**CR A1ace+2ce, B1+2abcde, D1**  
USA (Hawaii)  
Two individuals are confined to dry scrub on Kaali Cliff on Ni‘ihau Island.  
**Assessor:** Gemmill, C.  
**Refs:** 19118

**Pritchardia elliptica**  
Palmae  
**DD**  
USA (Hawaii)  
Restricted to Kumoa Valley, Lanai Island, the species was not found during a 1992 survey of the vicinity. The taxonomy is questionable.  
**Assessor:** Gemmill, C.  
**Refs:** 19118

**Pritchardia forbesiana**  
Palmae  
**EN A1acd, B1+2d, D1**  
USA (Hawaii)  
A palm tree of wet montane open forest, restricted to Mount ‘Eke in the Honokohau drainage basin in west Maui. Populations are recovering well in areas where feral pigs have been eradicated.  
**Assessor:** Gemmill, C.  
**Refs:** 19118

**Pritchardia glabrata**  
Palmae  
**EN A1ce+2ce, B1+2bcde, D1**  
USA (Hawaii)  
A very small palm tree, known only from Iao Needle in Maui, restricted to moist open forest and scrubland at about 550m. Damage is caused by feral pigs, rats and goats and competitive pressure is exerted by invasive plants such as *Rubus rosifolius*.  
**Assessor:** Gemmill, C.  
**Refs:** 19118

**Pritchardia hardyi**  
Palmae  
**CR A1ce, B1+2abce, D1**  
USA (Hawaii)  
A small palm tree, up to 5m high, scattered in wet open forest between 500 and 750m along the Powerline Trail.
on Kauai Island. Only 30 individuals are known in the wild and regeneration is limited. 
Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia kaalae*

Palmae

CR A1ce+2ce, B1+2abcde, C1+2a

USA (Hawaii)

A palm tree of lowland moist forest on slopes and cliffs between 450 and 980m. Fewer than 130 individuals are known from five populations in the central and north-central Waianae Mountains. Regeneration is by seed predation by rats and goats. The species is protected by the US Endangered Species Act.

Assessor: Gemmill, C. 
Refs: 19118, 19168

*Pritchardia lanaiensis*

Palmae

EN A1ce+2ce, B1+2abcde, D1

USA (Hawaii)

A palm of lowland mesic shrubland, confined to an area stretching from the upper Nannali drainage gulch to the Waialala gulch. No regeneration has been observed and the species is suffering from seed predation by rats and deer.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia lanigera*

Palmae

EN B1+2c

USA (Hawaii)

Restricted to the Kohala Mountains on Oahu Island, this small palm tree occurs in dense rainforest on a flat, boggy plateau between 1000 and 2000m. Populations are in decline and there is limited regeneration. Habitat degradation caused by pigs is the major threat to the species.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia limahuliensis*

Palmae

CR A1ce+2ce, B1+2abcde, C1+2a

USA (Hawaii)

Fewer than 100 individuals of this palm tree are known from Limahuli Valley, Kauai, in lowland moist forest. Regeneration is limited, mainly because of seed predation by rats and pigs.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia lowreyana*

Palmae

VU A1c+2ce, B1+2abcde, D1

USA (Hawaii)

Known only from a few localities in lowland rainforest near the northern shore of Molokai Island, this small palm tree is not regenerating well because of seed predation by rats, pigs and goats.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia munroi*

Palmae

CR A2ce, D1

USA (Hawaii)

A single wild tree remains in lowland dry shrubland on the leeward side of Molokai Island. A second immature individual may exist. A fence has been erected to keep feral pigs and goats out of the immediate area. The species is protected by the US Endangered Species Act.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia napaliensis*

Palmae

CR A1ce+2ce, B1+2abcde, C1+2a

USA (Hawaii)

A palm tree of moist lowland forest, found along the Napali coast. Fewer than 90 individuals are left in the wild and regeneration is limited, mainly as a result of seed predation by rats and goats. A few trees exist within an enclosure but the fence is not secure. The species is protected by the US Endangered Species Act.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia perimani*

Palmae

EN A1ce+2ce, B1+2abcde, C1+2a

USA (Hawaii)

Fewer than 500 individuals are scattered in moist lowland forest in Waiohi Valley on Kauai Island. Regeneration is poor because of seed predation by rats and pigs.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia remotia*

Palmae

EN A2ce, B1+2abcde, C1+2a

USA (Hawaii)

A palm tree of dry lowland scrub, known from only two populations containing approximately 680 individuals. The area is apparently free from feral animal. The species is proposed for inclusion in the US Endangered Species Act.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia schattaueri*

Palmae

CR A1ce+2ce, B1+2abcde, D1

USA (Hawaii)

Only 12 individuals in three populations remain in the wild in areas of lowland moist forest between 600 and 800m on Hawaii. The remaining trees are threatened by seed predation, grazing and agriculture.

Assessor: Gemmill, C. 
Refs: 19118

*Pritchardia thurstonii*

Palmae

LR/nt

Fiji

An important ornamental palm which is confined to the Lau Group in eastern Fiji. The species is locally abundant on limestone soils. It is widely cultivated.

Assessor: Fuller, D. 
Refs: 6033, 19118

*Pritchardia viscose*

Palmae

CR A1acde+2cde, B1+2abcde, D1

USA (Hawaii)

A palm tree of open wet forest, restricted to the windward side of Kauai Island between 500 and 700m. Only two wild trees were known until recently, when two more were discovered; one of which has been harvested. Hurricane Iniki caused a decline in the population. The current threat is seed predation by rats, pigs and humans.

Assessor: Gemmill, C. 
Refs: 19118
**Prichardia waialealeana**

**Palmae**

VU A2ce, B1+2abcde, D1

USA (Hawaii)

Endemic to Kauai Island, this palm tree is scattered in wet lowland open forest between 450 and 800m. It is threatened by seed predation by rats.

Assessor: Gemmill, C.

Refs: 19118

**Prichardia woodfordiana**

**Palmae**

DD

Solomon Islands (South Solomon)

Endemic to Nggela Island, this palm tree occurs in moist open forest up to 200m. There is some indication that the taxon represents a form of *P. pacifica*.

Assessor: Dowl, J.L.

Refs: 19118

**Prichardiajeanneneyi**

**Palmae**

CR D1

New Caledonia

The species occurs in the south-west on a steep slope on serpentine soils at 200m.

Assessor: Jaffré, T. et al.

Refs: 10351, 19118

**Prosopis abbreviata**

**Leguminosae**

VU B1+2c

Argentina (Catamarca, Córdoba, San Juan, San Luis, Santiago del Estero)

A scrubland species restricted to semi-arid and arid areas of central-west Argentina. Its distribution is highly fragmented within an area that has had a long history of human colonisation and pastoralism.

Assessor: Prado, D.

Refs: 1262, 5112, 11140

**Prosopis affinis**

**Leguminosae**

DD

Argentina (Buenos Aires, Córdoba, Corrientes, Entre Ríos, Formosa, Santa Fé, Brazil (Rio Grande do Sul), Paraguay, Uruguay)

Occurring in savanna and *campo*, the species' range is large but declining in the face of increasing agriculture and cattle ranching, as well as other activities.

Assessor: Prado, D.

Refs: 1262, 5112, 7134, 17523

**Prosopis alba**

**Leguminosae**

LR/nt

Argentina (Buenos Aires, Chaco, Córdoba, Corrientes, Entre Ríos, Formosa, Jujuy, Salta, San Luis, Santa Fé, Santiago del Estero), Bolivia, Chile?, Paraguay, Peru

In recent years this timber species has been heavily exploited, notably in the provinces of Formosa, Chaco and Santa Fé in Argentina. The population structure is reported to be fundamentally changed and studies are under way to examine the consequences of these changes. Populations in Bolivia are less rare and threatened.

Assessor: World Conservation Monitoring Centre

Refs: 1262, 4870, 5112, 7134, 17523, 19180

**Prosopis caldenia**

**Leguminosae**

DD

Argentina (Buenos Aires, Córdoba, La Pampa, Mendoza, Rio Negro, San Luis)

At one time more widespread, the species was heavily exploited in the past as a source of wood and fuel. It is currently restricted to small areas of *campo* and savanna in the centre-south of Argentina.

Assessor: Prado, D.

Refs: 1262, 5112, 7134

**Prosopis nigra**

**Leguminosae**

DD

Argentina (Buenos Aires, Catamarca, Chaco, Córdoba, Corrientes, Entre Ríos, Formosa, Jujuy, Salta, San Luis, Santa Fé, Santiago del Estero, Tucumán), Bolivia, Paraguay, Uruguay

An excellent timber tree, which occurs in abundance in lowland dry forest types. It is exploited widely as a timber, fuelwood and has various other uses.

Assessor: Prado, D.

Refs: 1262, 5112, 17523

**Prosopis tamarugo**

**Leguminosae**

LR/ed

Chile (Tarapacá)

Found only in the northernmost province of Chile, the species occurs within a small area of dry woodland. It is an important local source of timber and fuel, and is even cultivated on a small scale. Attempts to plant the species within the area of its natural distribution have been successful.

Assessor: González, M.

Refs: 4893, 16528, 17523

**Protea aurea ssp. pothbergensis**

**Proteaceae**

VU D2

South Africa (Western Cape)

This subspecies has a very restricted distribution, confined to Potberg Mountain in De Hoop Nature Reserve in the southern Cape. It grows on the lower slopes and flats at the base of the mountain in *fynbos* in both sparse and dense isolated stands. An estimated 2000 plants exist within an area of 15 km² (*AOO*). There is no evidence of a population decline, but frequent fires in the past may have had some impact. The area is protected but being invaded by alien pine trees and *hakeas*. Frequent fires could still pose a threat, as they may not allow sufficient time for plants to regenerate.


Refs: 689, 19218

**Protea comptonii**

**Proteaceae**

LR/nt

South Africa (KwaZulu-Natal, Mpumalanga), Swaziland

There are two disjunct areas where the species is found; one in the Kaapse Hoop and Barberton areas of Mpumalanga, just extending into Swaziland, and the other in KwaZulu-Natal with subpopulations in Vryheid, Louwsburg, the Itala Game Reserve and in Ngotshe District. It is highly localised on steep south-facing slopes on quartzite outcrops in grassy savanna. It does, however, appear to be abundant or in pure stands in places. There is some evidence of decline in numbers and extent of occurrence. The species is sensitive to frequent burning and appears to have low recruitment. Plants are also heavily grazed by large game animals and the bark is removed for use in traditional medicine by local people. The species is legally protected throughout its range. It also occurs in one publicly
Protea curvata
Proteaceae
VU D2
South Africa (Mpumalanga)
Only two subpopulations are known, both are confined to dry summit ridges of schist hills on serpentinite soils on the Drakensberg Escarpment near Barberton. It appears in low numbers in mixed savanna. There is no evidence of threats or population declines, but both subpopulations are on privately owned land and could easily be destroyed by any change in land-use.
Refs: 689, 19218

Protea laeboxis
Proteaceae
VU D2
South Africa (Mpumalanga, Northern Province)
Originally known only from a single locality at the Blyde River Canyon on the Drakensberg Escarpment, the species has since been found at another site on the escarpment north-east of Marieskop. It is found on quartzite outcrops, where it forms an open Protea savanna woodland. One population occurs in a publicly owned conservation area and the other is in a privately owned reserve. No threats are known and no decline has been recorded. The species' relationship with P. gaguedi will be described in a forthcoming revision of Protea (Rourke in prep.).
Refs: 689, 15561, 19218

Protea lanceolata
Proteaceae
VU A1ace
South Africa (Western Cape)
South Africa (Western Cape)
Found along the southern Cape coast from De Hoop to Mossel Bay, the species occurs on calcareous white sands in limestone *fynbos* and often at the ecotone with thicket communities. Near Mossel Bay, it occurs on gravels. Stands are very dense in places. The area of occupancy is approximately 1000 km². Agricultural activities, particularly planting of cereal crops, and coastal developments have resulted in the decline of the species in places and this is likely to continue, especially in the Mossel Bay area. More than half of the subpopulations are threatened by alien invasive species, particularly Australian *Acacia* species. A quarter of the known subpopulations occur in protected areas.
Refs: 689, 19218

Protem attenuatum
Burseraceae
DD
Dominica, Guadeloupe, Jamaica, Martinique, St Kitts and Nevis, St Lucia, St Vincent
A species endemic to the Lesser Antilles. The record for Jamaica is based on a single collection from 1786. It is either erroneous or the species has become extinct.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 10754

Protem connarifolium
Burseraceae
VU B1+2c
Malaysia (Sabah), Philippines
A lowland forest tree, known only from Palawan in the Philippines and a single collection from Semporna, Sabah. The main island of Palawan is a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986, 19017

Protem correae
Burseraceae
VU A2c
Colombia, Costa Rica, Nicaragua, Panama
The species has not been recorded in Panama since it was first collected in 1968. It is known from various collections in Nicaragua and Costa Rica and has been reported from Colombia. In Nicaragua it appears to be relatively common but generally confined to forest habitats, which are subject to increasing human disturbance.
Assessor: Mitré, M.
Refs: 11703, 16772

Protem inconforme
Burseraceae
VU B1+2c
Panama
Known only from Panama, the species is reported from four provinces, from the border with Costa Rica to the centre-east of the country. Occurring in forest types below 500m, populations in many parts of the species' range have been strongly affected by encroaching agriculture, cattle ranching and increasing settlement. There are populations within protected areas.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

Protem panamense
Burseraceae
LR/nt
Costa Rica, Panama
The species occurs along the Atlantic slopes of Panama in lowland evergreen rainforest and in Limón and La Selva Biological Station in Costa Rica. Populations are noted to be large, healthy and for the most part unthreatened.
Assessor: Mitré, M.
Refs: 7272, 8100, 16772

Protem pitteri
Burseraceae
VU A2c, E
Costa Rica, Panama
Populations in Panama are widespread on the Atlantic side of the provinces of Veraguas and Bocas del Toro. The species is also principally found on the Atlantic side of Costa Rica. Although numbers are small, the regenerative capacity of the species appears to be good. New roads have been built into Bocas del Toro, which have opened up new areas for settlement and logging.
Assessor: Mitré, M.
Refs: 15343, 16772

Protem tenuifolium ssp. meleodii
Burseraceae
VU A2c
Panama
Endemic to Panama, the species is recorded only from the provinces of Panamá and Darién. The collections from Panamá come from a restricted area and only a single population is so far known from Darién, within a national park. Regeneration appears to be sufficient.
Assessor: Mitré, M.
Refs: 7980, 16772
Procuriium tenuifolium ssp. sessiliflorum
Burseraceae
Costa Rica, Honduras, Nicaragua, Panama
This species is locally restricted, with low densities of individuals, especially in areas of lowland evergreen rainforest on the Pacific side, the largest populations being in the Canal and Darién regions. Regeneration appears to be healthy here. Elsewhere in the Panama and Costa Rica, populations are sparse, showing little recruitment, and imminently threatened with deforestation in places.
Assessor: Mitré, M.
Refs: 7980, 16772

Prumnopitys andina
Podocarpaceae
Chile (La Araucania, Los Lagos, Maule)
A timber tree with a fragmented distribution in low- to medium-altitude forest in the central Andean range. Populations are small, containing not more than a few hundred individuals, and exploitation is at a high level throughout the species' range, largely for the woodchip industry.
Assessor: González, M.
Refs: 7980, 8136, 13041, 16328

Prumnopitys exigua
Podocarpaceae
Bolivia
Assessor: SSC Conifer Specialist Group
Refs: 13041

Prumnopitys harmsiana
Podocarpaceae
Bolivia, Colombia, Peru, Venezuela
Assessor: SSC Conifer Specialist Group
Refs: 2739, 3047, 3204, 4217, 4870, 5411, 12268, 13041, 13661, 19127

Prumnopitys ladei
Podocarpaceae
Australia (Queensland)
Endemic to Mount Spurgeon near Mossman, the species is scattered in montane rainforest in summit localities. The entire population is contained within a state forest reserve and felling is illegal without permit.
Assessor: SSC Conifer Specialist Group
Refs: 7891, 13041, 17200

Prumnopitys standleyi
Podocarpaceae
Costa Rica
Endemic to Costa Rica, populations are known only from Volcan de Poas and Cerro las Vueltas.
Assessor: SSC Conifer Specialist Group
Refs: 13041

Prunus adenopoda
Rosaceae
Indonesia (Java)
A small tree which is confined to a few locations in the greatly diminished lowland coastal forests of Java. It is known from 10 collections, most of which are from the early 1900s; the last collection was made in 1960. Populations are found in Ujung Kulon National Park and on Nusa Kambangan, an island which is controlled by the Prion Service. Despite the very limited access to the island, the vegetation is threatened by timber thieves who are removing timber regardless of the armed guard patrol.
Assessor: Kalkman, C.
Refs: 563, 9078, 19045

Prunus africana
Rosaceae
Angola, Burundi, Cameroon, Democratic Republic of Congo, Equatorial Guinea (Bioko), Ethiopia, Kenya, Madagascar, Mozambique, Rwanda, São Tomé & Príncipe, South Africa (Eastern Cape, Guateng, KwaZulu-Natal, Mpumalanga, Northern Province), Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe
Also commonly known under the name Pygeum africanum, this species is widespread from the African tropics to Madagascar and South Africa. Throughout much of its range, most notably Cameroon and Madagascar, the unsustainable exploitation of its bark and to a lesser degree its timber have caused rapid population declines. It is too rare in some countries to be of commercial use and is most commonly exploited for the local market. An important element in the ecosystem, it is reported to regenerate well. It is listed in *CITES Appendix II and protected in various protected areas.
Assessor: World Conservation Monitoring Centre
Refs: 2361, 2773, 6396, 6718, 9605, 14778, 16021, 16730

Prunus caroliniae
Rosaceae
Colombia
An endemic to Cundinamarca.
Assessor: Calderon, E.
Refs: 19069

Prunus ceylanica
Rosaceae
Sri Lanka
A rare species which was found in only three localities during the extensive forest surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Prunus clementis
Rosaceae
Indonesia (Sulawesi), Philippines
This tree occurs in primary and secondary forest on volcanic and ultrabasic soils on Mindanao Island in the Philippines, and north and central Sulawesi. There have been no recent collections from the Philippines and only a few new collections from Sulawesi. Central Sulawesi has the largest tract of forest on ultrabasic rock in the tropics.
Assessor: Kalkman, C.
Refs: 563, 19045

Prunus ernestii
Rosaceae
Colombia
An endemic to Cundinamarca.
Assessor: Calderon, E.
Refs: 19069
**Prunus grisea var. tomentosa**

Rosaceae  
Philippines  
An endemic variety to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.  
Assessor: World Conservation Monitoring Centre  
Refs: 4986

**Prunus kinabalensis**

Rosaceae  
Malaysia (Sabah), Philippines  
This tree is found on Mount Kinabalu, Sabah, and has recently been discovered on Luzon in the Philippines. The population within Mount Kinabalu National Park is protected.  
Assessor: Kalkman, C.  
Refs: 563, 1766, 19045

**Prunus laxinervis**

Rosaceae  
Indonesia (Kalimantan), Malaysia (Sabah)  
This shrub or small tree is found in primary forest on Mount Kinabalu and in West Kalimantan. On Mount Kinabalu, this species has not been collected since 1930, although the area is well explored. The only specimen from West Kalimantan was collected in 1989.  
Assessor: Kalkman, C.  
Refs: 563, 1766, 19045

**Prunus lusitanica ssp. azorica**

Rosaceae  
Portugal (Azores)  
A low-growing tree which is found in deep narrow ravines and in stands of undisturbed laurel-juniper forest. Occurrences have been recorded from the islands of São Miguel, Terceira, São Jorge and Pico but in recent years only a few specimens have been found on Pico da Vara and Lombadas on São Miguel and on Pico. Clearing of the habitat for agriculture and plantations, and the invasion of introduced plants and animals, are the most serious problems.  
Assessor: World Conservation Monitoring Centre  
Refs: 19131

**Prunus lusitanica ssp. hisa**

Rosaceae  
Portugal (Madeira), Spain (Canary Is.)  
In Madeira, the species is known only from a single location on the north coast in a small area of the *laurisilva* within the National Park of Madeira. There is no regeneration by seed and only one stand of planted specimens has produced seed crops. Only a few populations exist in the *laurisilva* of the central Canary Islands.  
Assessor: World Conservation Monitoring Centre  
Refs: 19131

**Prunus lusitanica ssp. lusitanica**

Rosaceae  
France, Morocco, Portugal, Spain  
Widely scattered in moist forest enclaves in the Iberian Peninsula and in humid ravines in the north of the Rif Mountains in Morocco, the species represents a relic component of a Tertiary ecosystem which has retreated with the drying of the climate. Remaining populations are isolated and threatened with fire, overcutting and forest management activities, as well as a decline in the availability of water.  
Assessor: Vivero, J.I. et al.  
Refs: 7741

**Prunus mirabilis**

Rosaceae  
Malaysia (Sabah)  
This tree is endemic to Mount Kinabalu, where it is found in mossy forest. It has been collected just four times, the most recent collection dating to 1964. This species is protected in Mount Kinabalu National Park.  
Assessor: Kalkman, C.  
Refs: 563, 1766, 19045

**Prunus odorata**

Rosaceae  
Malaysia (Peninsular Malaysia)  
This species is confined to moist forest in the Cameron Highlands, in the state of Pahang. Information on the taxonomy and conservation of the species is insufficient. The area is experiencing increasing settlement and tourism. Populations are thought to receive some protection within the permanent forest estate.  
Assessor: Chua, L.S.L.  
Refs: 563, 8464, 19073

**Prunus pulgarensis**

Rosaceae  
Philippines  
A small forest tree known from only four collections from mountains on Palawan and Luzon. Both islands have suffered from massive deforestation. No new material of this species has been collected since 1965, even though there have been collecting expeditions to Palawan since.  
Assessor: Kalkman, C.  
Refs: 563, 4986, 19045

**Prunus ramburii**

Rosaceae  
Spain  
A species endemic to the Andalusian Sierras, occurring in dry montane scrub, where populations are affected by fire, tourism and lack of pollinators. It is used locally to make an alcoholic drink. A conservation plan for the species is being developed by Cordoba Botanic Garden.  
Assessor: Vivero, J.I. et al.  
Refs: 5287, 7222, 7741

**Prunus rubiginosa**

Rosaceae  
Philippines  
A very rare forest tree known from only five collections from Luzon, Mindoro, Sibuyan and Mindanao Islands.  
Assessor: Kalkman, C.  
Refs: 563

**Prunus subglabra**

Rosaceae  
Philippines  
A small tree restricted to forest on Mount Pulog and Mount Tabayog on Luzon. Despite Mount Pulog being relatively well explored, the species remains poorly known and has been collected only three times, most recently in 1968.  
Assessor: Kalkman, C.  
Refs: 563, 19045

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456
**Prunus taiwaniana**

**Rosaceae**

**VU D1+2**

Taiwan

Restricted to the northern part of the central mountain range, this ornamental tree occurs in isolated populations in mixed montane forest. The species is unprotected throughout its range and observations indicate that regeneration is poor. The effects of increasing settlement of the land and forest management activities are also threatening some populations.

**Assessor:** Lu, S.Y. & F.J. Pan

**Refs:** 6469, 19050, 19053

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**Prunus transarisanensis**

**Rosaceae**

**LR/nt**

Taiwan

A shrubby tree, endemic to Taiwan and widely scattered in the northern half of the central mountain range. It occurs in forest between 1600 and 2800m.

**Assessor:** Lu, S.Y. & F.J. Pan

**Refs:** 6469, 19053

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**Prunus turfosa**

**Rosaceae**

**EN A1c+2c**

Brunei?, Indonesia (Kalimantan), Malaysia (Sarawak)

This tree is confined to peat-swamp forest in Sarawak, although a similar specimen has been collected from West Kalimantan on the border with Sarawak. It may also occur in Brunei Darussalam. The peat-swamp forest of Sarawak has been licensed for timber extraction. There has been no botanical collecting in the area since 1961.

**Assessor:** Kalkman, C.

**Refs:** 563, 1766, 19045

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**Prunus villegasiana**

**Rosaceae**

**EN B1+2c**

Colombia

An endemic to Valle.

**Assessor:** Calderon, E.

**Refs:** 19069

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**Prunus walkerii**

**Rosaceae**

**VU A1c**

Sri Lanka

A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 15431, 17195

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**Pseudocarpaea lamyi**

**Rosaceae**

**EN A1c+2c**

Brazil

A species restricted to the lowland rainforest in southern Brazil.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 6469, 19053

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**Pseudococcum lepidopterum**

**Rosaceae**

**EN A1c+2c**

Brazil

A species restricted to the lowland rainforest in southern Brazil.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 6469, 19053

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**Pseudodiscus aureus**

**Euphorbiaceae**

**VU A1c, B1+2c**

Cameroon, Equatorial Guinea (Bioko, Equatorial Guinea), Ghana, Nigeria, São Tomé & Príncipe (São Tomé)

A species which is found mainly in montane forest in the Lower Guinea region. In Nigeria it occurs only on the Obudu Plateau, where fires and encroaching agriculture are causing damage to the restricted areas of remaining vegetation in forested valleys. An anomalous occurrence is known in Ghana, where it is highly localised but common in evergreen rainforest along a river bank. General threats from mining, logging and commercial forestry can affect these areas. This is the only species in the genus.

**Assessor:** Hawthorne, W.

**Refs:** 2773, 8369, 8854, 11504, 12061

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**Pseudobombax argentinum**

**Bombaceae**

**DD**

Argentina (Jujuy, Salta), Bolivia, Brazil (São Paulo), Paraguay

A rare species of low to middle elevation forest types. The Argentinian population is threatened because its habitat is rapidly being converted into cattle ranches.

**Assessor:** Prado, D.

**Refs:** 1262, 5112

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**Pseudocarpaea champion**

**Melastomataceae**

**VU A1c**

Sri Lanka

A species restricted to the lowland rainforest in south-west Sri Lanka.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 9176, 17195

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**Pseudoeugenia tenuifolia**

**Myrtaceae**

**EN B1+2c**

Malaysia (Peninsular Malaysia)

A lowland forest tree, known only from two collections. One collection originated from Kamasul Forest Reserve, which is now being established as an artificial plantation. It is hoped that there is a population within the Virgin Jungle Reserve in Selangor.

**Assessor:** Chua, L.S.L.

**Refs:** 8464, 19073, 19182

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**Pseudoglochidion anamalayananum**

**Euphorbiaceae**

**CR B1+2c**

India (Tamil Nadu)

A monotypic genus known only from the two collections from a small area of submontane forest in the Anamalai Hills in Coimbatore District. There are large areas of intact and well-protected forest. However, despite repeated botanical surveys, the species has not been found since 1912.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 4799, 19144

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**Pseudodiscus hirtula**

**Moraceae**

**EN B1+2bc**

Brazil

A forest species known only from the coastal region between Rio de Janeiro and Santa Catarina.

**Assessor:** Carauta, J.P.P.

**Refs:** 7980, 15717, 19101

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**Pseudopanax ferox**

**Araliaceae**

**LR/nt**

New Zealand (North Is., South Is.)

A small tree with a local occurrence.

**Assessor:** de Lange, P.J.

**Refs:** 902, 9800, 19133

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**Pseudopanax gilliesii**

**Araliaceae**

**LR/nt**

New Zealand (North Is.)

Thorough surveys have found this species to be widespread. It occurs as a small tree or shrub in regenerating *kauri* forest and coastal shrubland in north Auckland. Regeneration is good and the species is often planted as an ornamental.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 902, 9800, 17637, 19134
**Pseudopanax scopoliae**

Araliaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Pseudophoenix ekmanii**

Palmaceae  
CR B1+2c  
Dominican Republic  
This palm tree is restricted to dry lowland scrub on the Barahona Peninsula. The population has been depleted by previous felling of trees for the production of palm wine. Present threats are grazing and agriculture.  
Assessor: Johnson, D.  
Refs: 19118

**Pseudophoenix lediniana**

Palmaceae  
CR D1  
Haiti  
A rare palm tree restricted to dry scrub in river valleys in the south-west peninsula. In 1989 only 30 trees were found in the wild. Locally the fruit is fed to livestock.  
Assessor: Johnson, D.  
Refs: 19118

**Pseudosalacia streyi**

Celastraceae  
VU A2c  
South Africa (Eastern Cape, KwaZulu-Natal)  
A shrub or small tree, endemic to Pondoland in southern KwaZulu-Natal and the eastern Transkei area of the Eastern Cape. It is found along sandstone streams or in moist places in evergreen forests, sometimes in small groves, near the coast from Uvongo to Port St. John’s. At many localities there is poor regeneration. It occurs in a number of publicly owned protected areas in the region, including many of the demarcated forest areas in Transkei, which are no longer strictly protected. Habitat destruction through cutting for firewood and timber and increasing settlement pose a problem here and in southern KwaZulu-Natal.  
Refs: 689, 19218

**Pseudosamanea cubana**

Leguminosae  
VU B1+2c  
Cuba  
Endemic to south-eastern Cuba, this tree grows in palm-savanna and sub-coastal dry evergreen forest. The good-quality construction timber has been overexploited for years.  
Assessor: Areces-Mallea, A.E.  
Refs: 5994, 19149

**Pseudoscladiadium balansae**

Araliaceae  
VU B1+2c  
New Caledonia  
Assessor: Jaffré, T. et al.  
Refs: 10351

**Pseudoscliola polyantha**

Flacourtiaceae  
LR/nt  
South Africa (Eastern Cape, Western Cape, KwaZulu-Natal)  
A shrub or small tree, found mainly on forest margins in the Transkei, Eastern Cape, and southern KwaZulu-Natal, with a disjunct distribution in the Noodskberg area of KwaZulu-Natal and a very strange isolated occurrence on the Piketberg in the Western Cape. Many of the subpopulations occur on soils derived from sandstone. The species occurs in the Umtamvuna Nature Reserve and in a number of demarcated forest areas in the Transkei, which are no longer strictly protected. Habitat destruction through cutting for firewood and timber and increasing settlement could pose a problem here, especially at forest margins.  
Refs: 689, 19218

**Pseudospindias microcarpa var. hirsuta**

Anacardiaceae  
VU B1+2c  
Nigeria  
A variety which is very similar to the Africa-wide type variety. It appears to occur in forest areas fringing forest–savanna mosaic only in south-west Nigeria. Forests in the country have been extensively logged and cleared for commercial and subsistence agriculture.  
Assessor: World Conservation Monitoring Centre  
Refs: 2773, 11504

**Pseudotaxus chienii**

Taxaceae  
EN A1c  
China (Guangdong, Guangxi, Hunan, Jiangxi, Zhejiang)  
A generally rare and scattered species occurring in densely forested areas in limestone gullies or on cliffs. In addition to habitat deterioration, the species appears to be suffering from inadequate pollination of female plants.  
Assessor: SSC Conifer Specialist Group  
Refs: 1818, 11911, 13041

**Pseudotsuga macrocarpa**

Pinaceae  
LR/nt  
USA (California)  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 13041

**Pseudotsuga sinensis var. brevifolia**

Pinaceae  
VU B1+2c  
China (Guangxi)  
The variety is given species status in China. It is confined to areas of sparse forest on limestone hills in south-west Guangxi and southern Guizhou. There is some overcutting.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 11911, 11847, 13041

**Pseudotsuga sinensis var. gaussenii**

Pinaceae  
LR/nt  
China (Anhui, Fujian?, Sichuan, Zhejiang)  
The taxon is treated as a distinct species in China. Trees are scattered on slopes and in valleys below 1500m in south-east Anhui, north Zhejiang and Jiangxi. There is also a record from Jinning in Fujian. Constant overcutting of the tree and its habitat are a threat and the seeds are said to have poor viability. A substantial population is protected in Lin'an County, Zhejiang.  
Assessor: SSC Conifer Specialist Group  
Refs: 374, 11911, 11847, 13041

**Pseudotsuga sinensis var. sinensis**

Pinaceae  
VU A1cd  
China (Guizhou, Hubei, Hunan, Shaanxi, Sichuan, Yunnan), Taiwan  
The taxon is widespread, but scattered as isolated individuals or in small stands, primarily on mountain ridges in mixed submontane forest. The Taiwan populations are known in the country under the synonym P. wilsoniana. They are restricted to the central and
northern parts of the main mountain range, where the forest is being extensively cleared for apple and peach orchards. The timber is extracted extensively throughout the species' range but most thoroughly in accessible areas.

**Assessor:** SSC Conifer Specialist Group  
*Refs:* 374, 1818, 2802, 19050, 19127

**Pseudoxandra williamsii**  
*Annonaceae*  
**VU D2**  
**Peru**  
Known only from the type collection, the species occurs in the department of Loreto.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Pseuduvaria cerina**  
*Annonaceae*  
**VU D2**  
**Malaysia (Peninsular Malaysia)**  
A lowland forest tree, known only from a single collection gathered in Bukit Baku Forest Reserve, a permanent forest reserve in Terengganu.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 8464, 19073

**Pseuduvaria galeata**  
*Annonaceae*  
**LR/cd**  
**Malaysia (Peninsular Malaysia)**  
Confined to south-east Johore, the collection localities of this lowland forest species are being developed for agriculture and resorts. It may occur in the permanent forest reserves in this state.  
*Assessor:* Kochummen, K.M.  
*Refs:* 17140, 19073

**Pseuduvaria nervosa**  
*Annonaceae*  
**VU D2**  
**Malaysia (Peninsular Malaysia)**  
A tree known only from a single collection from the hill forests at Ulu Berang-terasat, Terengganu. It is hoped that the species falls within the permanent forest reserve system.  
*Assessor:* Kochummen, K.M.  
*Refs:* 19073

**Pseuduvaria prainii**  
*Annonaceae*  
**VU B1+2c**  
**India (Andaman and Nicobar Is. - Andaman Is., Andaman and Nicobar Is. - Nicobar Is.)**  
A species endemic to the evergreen rainforest of the Andaman Islands and Great Nicobar Island. Large-scale logging has taken place on the Andamans and there is no doubt that the species has declined as a result.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 4799

**Pseuduvaria taipingensis**  
*Annonaceae*  
**LR/cd**  
**Malaysia (Peninsular Malaysia)**  
A locally common species restricted to montane forest on Maxwell's Hill in Perak. This locality is going to be developed as a tourist resort but most of the existing forest will be conserved in the protected forests.  
*Assessor:* Kochummen, K.M.  
*Refs:* 19073

**Psidium cinereum**  
*Myrtaceae*  
**LR/nt**  
**Brazil**  
*Assessor:* Barroso, G.M.  
*Refs:* 19097, 19098

**Psidium dumetorum**  
*Myrtaceae*  
**EX**  
**Jamaica**  
Once known from a restricted area of streamside thicket in Clarendon, the species has not been collected since 1976 and is now presumed extinct. The habitat in the area has been completely cleared.  
*Assessor:* Kelly, D.L.  
*Refs:* 5653, 19085

**Psidium harrissonianum**  
*Myrtaceae*  
**LR/nt**  
**Jamaica**  
An uncommon small tree or shrub. It appears on wooded rocky limestone hilltops in the central parishes.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 401, 6057, 7980

**Psidium havanense**  
*Myrtaceae*  
**EN B1+2c**  
**Cuba**  
An uncommon shrub or small tree restricted to the remaining dry evergreen scrub and scrub forests on serpentine outcrops in the Habana and Ciudad de la Habana Provinces. Habitat loss from cutting, burning, grazing and housing development has caused a decline in the species.  
*Assessor:* Areces-Mallea, A.E.  
*Refs:* 11403, 18485, 19149

**Psidium rostratum**  
*Myrtaceae*  
**VU D2**  
**Peru**  
This species is restricted to coastal forest in the department of Tumbes.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Psidium rufum var. widgrenianum**  
*Myrtaceae*  
**VU B1+2acd**  
**Brazil**  
*Assessor:* Pires O'Brien, J.  
*Refs:* 19097, 19098

**Psidium sintenisii**  
*Myrtaceae*  
**CR D1**  
**Puerto Rico**  
A total of three or four very small populations are known from mossy wet forest on summits and peaks, principally in El Yunque. There is no evidence of regeneration.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 7980, 17124, 17540

**Psoralea arborea**  
*Leguminosae*  
**DD**  
**South Africa (KwaZulu-Natal), Swaziland**  
The taxonomy and true identity of this taxon is not fully resolved, especially its relationship with *P. pinnata*. A previous account by Prof. C. Sturton indicates that urban expansion, land drainage and dam building and frequent fires are major threats to the species. However as no
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information can be traced on its precise distribution and abundance its conservation status must remain data deficient.

Refs: 689, 19218, 19219

Psychotria adamsonii Rubiaceae DD
French Polynesia (Marquesas Is.)
The species has been collected only from Ua Pou from the Pepehitioua valley at about 760m.
Assessor: Florence, J.
Refs: 14513

Psychotria alsophila Rubiaceae VU B1+2b
Kenya, Tanzania
Known only from Ngango forest in the Taita Hills in Kenya and a slightly larger area in Tanzania, this shrub or small tree is restricted to patches of dry forest at medium to high altitude.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 8814

Psychotria atricaulis Rubiaceae LR/nt
French Polynesia (Society Is.)
The species is known only from Huahine.
Assessor: Florence, J.
Refs: 14513

Psychotria beddomei Rubiaceae EN B1+2c
India (Kerala)
Known only from the type collection, this small tree is recorded from a restricted area of forest at medium elevation, in the Agasthyamalai Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 19144

Psychotria bryonicola Rubiaceae CR C2b
Jamaica
There is very little information on this species. It evidently occurs very rarely in Portland at 750m.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Psychotria cathetoneura Rubiaceae VU D2
Cuba
Confined to the forests of El Yunque de Baracoas in Guantánamo Province, this shrub or small tree is localised in a small area on limestone and dolomite.
Assessor: Areces-Mallea, A.E.
Refs: 11403, 18485, 19149

Psychotria clarendonensis Rubiaceae EN B1+2c
Jamaica
Small populations are known only from Clarendon Parish, where they are restricted to rocky limestone hilltops at about 760m.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Psychotria clusioides Rubiaceae EN B1+2c
Jamaica
A tree confined to rainforest on limestone in Portland between 530 and 600m.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Psychotria congesta Rubiaceae DD
Jamaica
There are no recent records of this obscure species. It is believed to be endemic and is evidently very uncommon. There is a possibility that it is conspecific with P. dolphiennisis.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653

Psychotria cookei Rubiaceae DD
French Polynesia (Society Is.)
The species is known only from Raiatea.
Assessor: Florence, J.
Refs: 14513

Psychotria crassipetala Rubiaceae VU B1+2c
Kenya
A shrub or tree to 12m, endemic to submontane forest in the Taita Hills.
Assessor: World Conservation Monitoring Centre
Refs: 1308, 6396, 13072

Psychotria cyathicalyx Rubiaceae VU B1+2b
Tanzania
A moist montane forest tree locally common in the West Usambara Mountains, the Uluguru Mountains and also Mount Kilimanjaro.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Psychotria danceri Rubiaceae CR B1+2c
Jamaica
Previously the species was known only from the type specimen with no definite locality. In 1992 a population was found in submontane rainforest on Holland Mountain.
Assessor: World Conservation Monitoring Centre
Refs: 5653

Psychotria dasypophthalma Rubiaceae VU B1+2c
Jamaica
Known only from St Andrew and Manchester Parishes, the species is found in localised areas of dense thicket on limestone hills.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Psychotria deverdiana Rubiaceae EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351
Psychotria dolichantha  
Rubiacae  
Jamaica  
Known from the central parishes, the species is not uncommon and occurs in thickets and woodland on rocky limestone.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

Psychotria domatiata  
Rubiacae  
Jamaica  
Confinned to Portland, the species occurs in remaining areas of rainforest and mossy thickets on limestone between 530 and 900m.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 7980, 17743

Psychotria dubia  
Rubiacae  
Sri Lanka  
A species occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
Assessor: World Conservation Monitoring Centre  
Refs: 9176, 17195

Psychotria elachistana  
Rubiacae  
Tanzania  
Endemic to the Uluguru Mountains, this species is confined to high elevations in moist evergreen forest.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

Psychotria foetens  
Rubiacae  
Jamaica  
An uncommon tree known only from localities in St Elizabeth and St Mary.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 7980

Psychotria franchetiana  
Rubiacae  
French Polynesia (Society Is.)  
Populations are recorded from Moorea and Tahiti.  
Assessor: Florence, J.  
Refs: 14513

Psychotria gardneri  
Rubiacae  
Sri Lanka  
A rare species found in only five localities during the extensive forest surveys conducted for the National Conservation Review.  
Assessor: World Conservation Monitoring Centre  
Refs: 19112

Psychotria glandulifera  
Rubiacae  
Sri Lanka  
A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka. It was found in only five forests in the Ratnapura and Matara Districts during the extensive forest surveys conducted for the National Conservation Review.  
Assessor: World Conservation Monitoring Centre  
Refs: 8203, 17195, 18796

Psychotria globicepsphala  
Rubiacae  
India (Kerala, Tamil Nadu)  
A shrubby species, collected from forest in approximately five localities between the southern Nilgiris and the Agastyamalai Hills.  
Assessor: World Conservation Monitoring Centre  
Refs: 14276, 19144

Psychotria goetzei var. goetzei  
Rubiacae  
Tanzania  
A variant of an east Tanzanian endemic. This is a shrub or small tree restricted to areas of moist evergreen forest over 1100m in altitude.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

Psychotria goetzei var. platyphylla  
Rubiacae  
Tanzania  
A variant of slightly lower altitudes than the type variety. It is confined to areas of moist semi-deciduous forest between 950 and 1650m.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

Psychotria grandiflora  
Rubiacae  
USA (Hawaii)  
Endemic to Kauai Island, the species occurs in rainforest between altitudes of 1040 and 1230m in Kokee and Alakai Swamp.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Psychotria grantii  
Rubiacae  
French Polynesia (Society Is.)  
The species is known only from Tahiti.  
Assessor: Florence, J.  
Refs: 14513

Psychotria greenwelliae  
Rubiacae  
USA (Hawaii)  
A rainforest species known only in the vicinity of Kokee.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

Psychotria guerkeana  
Rubiacae  
São Tomé & Príncipe (São Tomé)  
A shrub or small tree collected several times, recently mostly from Pico.  
Assessor: World Conservation Monitoring Centre  
Refs: 2724

Psychotria hanoverensis  
Rubiacae  
Jamaica  
Confined to Hanover, the species is very uncommon and little known.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 7980
Psychotria hierniana
Rubiacceae VU D2
São Tomé & Príncipe
This species is known only from the former Portuguese island of Príncipe. It appears to be restricted to the east coast between 1000 and 1500m. Extensive forest surveys conducted for the National Conservation Review have not indicated the presence of this species at higher altitudes. Assessor: World Conservation Monitoring Centre
Refs: 2724, 10080

Psychotria hodyi
Rubiacceae EN C2a
USA (Hawaii)
A shrub found in upland forest from 300 to 1200m. It appears to be restricted to the rocky limestone areas of the island. Assessor: World Conservation Monitoring Centre
Refs: 3372

Psychotria le-bronneci
Rubiacceae DD
French Polynesia (Marquesas Is.)
This species is known only from Tahiti. Assessor: Florence, J.
Refs: 14513

Psychotria longipetiolata
Rubiacceae EN B1+2c
Sri Lanka
This species is confined to the western slopes of the Western Ghats between 1500 and 2700m. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 8203, 18796, 19112

Psychotria macrocarpa
Rubiacceae EN B1+2c
India (Kerala, Tamil Nadu)
This species is known only from the southern part of Kerala, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 19144

Psychotria megalopus
Rubiacceae VU B1+2b
Tanzania
This species is known only from the western part of the island of Zanzibar, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 3356, 8814

Psychotria megistantha
Rubiacceae VU B1+2b
Tanzania
Endemic to the North and South Uluwuru Mountains, this shrub or small tree is known only from the areas of moist montane evergreen forest. Assessor: World Conservation Monitoring Centre
Refs: 3356, 8814

Psychotria nilgiiriensis var. astephana
Rubiacceae EN B1+2c
India (Tamil Nadu)
This species is known only from the Nilgiris Mountains, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 19144

Psychotria pedunculata var. caudata
Rubiacceae LR/nT
Jamaica
This species is known only from the highlands of Jamaica, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Psychotria petiti
Rubiacceae VU B1+2c, D2
Kenya
This species is known only from the highlands of Kenya, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 1308, 6396, 13072, 17859

Psychotria plicata
Rubiacceae VU B1+2c
Jamaica
This species is known only from the highlands of Jamaica, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980, 19085

Psychotria plurivenia
Rubiacceae EN B1+2c
Sri Lanka
This species is known only from the highlands of Sri Lanka, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 8203, 18796, 19112

Psychotria pseudoplatyphylla
Rubiacceae VU B1+2b
Kenya, Tanzania
Endemic to the highlands of Kenya, where it occurs in evergreen forest. It is highly restricted and occurs only in a few disjunct localities. Assessor: World Conservation Monitoring Centre
Refs: 3356, 8814

The World List of Threatened Trees
Psychotria pulchra var. hispidula
Rubiaceae
Jamaica
A variety of potential horticultural interest. It is known only from the parish of Trelawny from a locality at about 530m.
Assessor: Kelly, D.L.
Refs: 5653, 19085

Psychotria siphonophora
Rubiaceae
Jamaica
A limestone woodland species. It appears to have been collected from only a single location at about 600m near Troy.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Psychotria sordida
Rubiaceae
Sri Lanka
A rare species found in only two wet zone forests during the extensive forest surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Psychotria speciosa
Rubiaceae
French Polynesia (Society Is.)
The species is endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Psychotria stenophylla
Rubiaceae
Sri Lanka
This species was found in 17 localities during the extensive forest surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 18796, 19112

Psychotria tahitensis
Rubiaceae
French Polynesia (Society Is.)
The species is endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Psychotria taitensis
Rubiaceae
Kenya
A small tree of evergreen forest between 1400 and 1600m, endemic to Kasigau.
Assessor: World Conservation Monitoring Centre
Refs: 1308, 6396, 13072

Psychotria trichocalyx
Rubiaceae
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Psychotria tubuaniensis
Rubiaceae
French Polynesia (Tubuai Is.)
An endemic to Tubuai.
Assessor: Florence, J.
Refs: 14513

Psychotria waasii
Rubiaceae
Sri Lanka
During the extensive forest surveys conducted for the National Conservation Review, this wet zone species was found in only seven of the surveyed sites.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Psychotria woyikowskii
Rubiaceae
Peru
This species is known only from the type collection taken from the department of Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Psychotria zambamontana
Rubiaceae
Tanzania, Zimbabwe
Confined to areas of moist montane forest, the species occurs in east and south Tanzania, Malawi and Zimbabwe.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814, 13191

Psydrax faulkneriae
Rubiaceae
Kenya, Tanzania
A species ranging from a few localities of dry coastal forest or thicket in Kenya to areas of east Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 8814

Psydrax kibuwae
Rubiaceae
Tanzania
A poorly known tree recorded only from the type, which was collected at Kiwanda along the Sigi River in the East Usambara Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Psydrax micans
Rubiaceae
Mozambique, Tanzania
A dry coastal forest small tree ranging from south-east Tanzania to Mozambique.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 8814

Psydrax paradoxa
Rubiaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Pteleopsis barbosa
Combretaceae
Mozambique
Assessor: Bandeira, S.
Refs: 5117, 18965

Species Summaries

Tanzania, this species is confined to areas of moist montane forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 12067

Psychotria pulchra var. hispidula
Rubiaceae
EN B1+2c
Jamaica
A variety of potential horticultural interest. It is known only from the parish of Trelawny from a locality at about 530m.
Assessor: Kelly, D.L.
Refs: 5653, 19085

Psychotria siphonophora
Rubiaceae
EN B1+2c
Jamaica
A limestone woodland species. It appears to have been collected from only a single location at about 600m near Troy.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Psychotria sordida
Rubiaceae
EN B1+2c
Sri Lanka
A rare species found in only two wet zone forests during the extensive forest surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Psychotria speciosa
Rubiaceae
CR B1+2c
French Polynesia (Society Is.)
The species is endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Psychotria stenophylla
Rubiaceae
CR B1+2c
Sri Lanka
This species was found in 17 localities during the extensive forest surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 18796, 19112

Psychotria tahitensis
Rubiaceae
CR B1+2c
French Polynesia (Society Is.)
The species is endemic to Tahiti.
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Rubiaceae
CR B1+2c
French Polynesia (Society Is.)
An endemic to Tahiti.
Assessor: Florence, J.
Refs: 14513

Psychotria tubuaniensis
Rubiaceae
DD
French Polynesia (Tubuai Is.)
An endemic to Tubuai.
Assessor: Florence, J.
Refs: 14513

Psychotria waasii
Rubiaceae
VU A1c, B1+2c
Sri Lanka
During the extensive forest surveys conducted for the National Conservation Review, this wet zone species was found in only seven of the surveyed sites.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Psychotria woyikowskii
Rubiaceae
VU D2
Peru
This species is known only from the type collection taken from the department of Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Psychotria zambamontana
Rubiaceae
LR/nt
Tanzania, Zimbabwe
Confined to areas of moist montane forest, the species occurs in east and south Tanzania, Malawi and Zimbabwe.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814, 13191

Psydrax faulkneriae
Rubiaceae
VU B1+2b
Kenya, Tanzania
A species ranging from a few localities of dry coastal forest or thicket in Kenya to areas of east Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 8814

Psydrax kibuwae
Rubiaceae
VU B1+2b, D2
Tanzania
A poorly known tree recorded only from the type, which was collected at Kiwanda along the Sigi River in the East Usambara Mountains.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Psydrax micans
Rubiaceae
VU B1+2b
Mozambique, Tanzania
A dry coastal forest small tree ranging from south-east Tanzania to Mozambique.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 8814

Psydrax paradoxa
Rubiaceae
VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Pteleopsis barbosa
Combretaceae
DD
Mozambique
Assessor: Bandeira, S.
Refs: 5117, 18965
Pteleopsis habeensis
Combretaceae
EN A1c, B1+2c
Ghana, Mali, Nigeria
Three localities, which account for little more than a few square kilometres, are known: the Bandiagara scarps in Mali, Yankari Game Reserve in Nigeria and the dry forests of Bui and Akosombo in Ghana. In Yankari it grows on rocky hills, in dense stands in an area that is under pressure from encroachment. In Ghana the establishment of a plantation and the influx of people into the area have caused declines in the species' habitat.
Assessor: Hawthorne, W.
Refs: 6127, 7439, 8369, 12061

Pteleopsis tetraperta
Combretaceae
Kenya, Tanzania
A species of coastal forest or scrub, occurring in a small area which is densely populated and much modified by human activities.
Assessor: World Conservation Monitoring Centre
Refs: 6396, 9198, 17787, 18829

Pteralyxia kauiensis
Apocynaceae
USA (Hawaii)
This species grows on slopes and ridges in various lowland moist forest types. It is known from nine populations, consisting of 500 and 1000 individuals in total. The habitat continues to be degraded by feral goats, pigs and invasive plants. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19038

Pteralyxia macrocarpa
Apocynaceae
USA (Hawaii)
An endemic to Oahu Island, where the species is scattered sparsely in moist forest up to 730m in the Waianae and Ko'olau Mountains.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Pterandra isthmica
Malpighiaceae
Panama
This species is known only from populations in the proximity of the Cerro Azul to the north-east of the city of Panamá. It occurs sparsely in semi-deciduous rainforest between 600 and 900m. The population in Chagres National Park is well protected.
Assessor: Mitré, M.
Refs: 7980, 15037, 16772

Pterocarpus angolensis
Leguminosae
LR/nt
Angola, Botswana, Democratic Republic of Congo, Mozambique, Namibia, South Africa (KwaZulu-Natal, Mpumalanga, Northern Province), Swaziland, Tanzania, Zambia, Zimbabwe
A key timber species throughout its distribution in woodland areas of East and Southern Africa. Large stands are known to still occur in places, particularly in protected areas in South Africa, Botswana and Namibia. In most regions, however, the species has become less frequent, especially where it is heavily used by local populations. There are attempts to exploit remaining stands sustainably or at least in a regulated way, but in most parts of the range there is no control over the rate of harvesting. Large individuals are reported to be suffering from fungal attack. Regeneration is sufficient but may be episodic, depending on fire or high rainfall. Individuals are reproducitively mature at 15–20 years old.
Assessor: World Conservation Monitoring Centre
Refs: 3344, 6723, 7550, 9090, 13370, 17335, 19172, 19218

Pterocarpus dalbergioides
Leguminosae
DD
India (Andaman and Nicobar Is. - Andaman Is.)
Endemic to the Andaman Islands, this tree is found in deciduous and semi-moist deciduous forests up to 100m. Trees are cut for narra timber.
Assessor: Asian Regional Workshop
Refs: 5651, 9090, 14573

Pterocarpus indicus
Leguminosae
VU A1d
Cambodia, India, Indonesia (Bali, Irian Jaya, Java, Kalimantan, Lesser Sunda Is., Moluccas, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia, Sabah), Myanmar, Papua New Guinea (Bismarck Archipelago, North Solomons, Papua New Guinea), Philippines, Solomon Islands (South Solomon), Sri Lanka, Taiwan, Thailand, Vanuatu, Viet Nam (ex)
A widespread tree found in lowland primary and some secondary forest, mainly along tidal creeks and rocky shores. Populations have declined because of overexploitation, sometimes illegal exploitation, of the narra timber, as well as from increasing general habitat loss. The Viet Nam population has been extinct for some 300 years. An extensive forest survey in Sri Lanka has failed to find the species and information on populations in India, Indonesia and the Philippines indicate the species is seriously threatened. Exploitation of the few known stands in Peninsular Malaysia may have caused its extinction there and what are believed to be the largest remaining populations, in New Guinea, are being heavily exploited. Cultivated populations are widely distributed throughout the tropics.
Assessor: World Conservation Monitoring Centre
Refs: 4919, 5550, 6125, 6156, 6426, 8056, 9328, 10013, 10571, 12779, 12937, 14573, 17140, 19057, 19112, 19147

Pterocarpus marsupium
Leguminosae
VU A1cd
Sri Lanka
This dry zone tree is declining in Sri Lanka, as it is exploited for its timber and its medicinal bark and latex.
Assessor: World Conservation Monitoring Centre
Refs: 1833, 19110

Pterocarpus mildbraedii ssp. usambarensis
Leguminosae
VU B1+2b
Tanzania
The species is widespread, extending across the African continent. This is a distinct subspecies, confined to moist lowland forest in eastern Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 3356, 7550, 11631

Pterocarpus santalinus
Leguminosae
EN B1+2de
India
Red sandalwood is restricted to the southern parts of the
Eastern Ghats, where it occurs in dry deciduous forest. The tree is commercially valuable for its timber and for the extraction of dye, medicine and cosmetics. It has been overexploited in the past. International trade is now monitored through a *CITES Appendix II* listing and plantations are being established.

**Assessor:** CAMP Workshops on Medicinal Plants in India  
**Refs:** 561, 1228, 6508, 18325, 19074

**Pterogyne nitens**
Leguminosae  
LR/ht  
Argentina (Chaco, Corrientes, Formosa, Jujuy, Misiones, Salta, Tucumán), Bolivia, Brazil, Paraguay  
The species’ distribution is contained within an area of seasonally dry forest, extending from northern Argentina into Brazil, Paraguay and Bolivia. The habitat is unprotected and in decline because of logging and encroaching agriculture and pastoralism. The species is sought-after as a source of timber. In Bolivia it is one of several species, native to semi-deciduous forest in eastern Santa Cruz, which are experiencing increased logging pressure.

**Assessor:** Prado, D.  
**Refs:** 1262, 4506, 11936, 19170

**Pterospermum kingtunense**
Sterculiaceae  
CR B1+2c, C2a  
China (Yunnan)  
Confined to Babianjiang in Yunnan, the species grows in forested valleys on limestone between 1400 and 1500m. There are very few adult individuals left, although the trees which have been cut are regrowing. The area is not protected and is susceptible to cutting and disturbance.

**Assessor:** Sun, W.  
**Refs:** 1818, 11847, 19055

**Pterospermum menglunense**
Sterculiaceae  
CR B1+2c, C2a  
China (Yunnan)  
A species confined to a single locality of monsoon forest on limestone hills in Menglu, Mengla County. The population is contained within Xishuangbanna Nature Reserve and should be protected, although illegal cutting is known to take place.

**Assessor:** Sun, W.  
**Refs:** 1818, 11847, 19055

**Pterospermum reticulatum**
Sterculiaceae  
VU B1+2c  
India (Karnataka, Kerala, Tamil Nadu)  
Reported to have been frequent in the past, this endemic of the Western Ghats has become restricted to scattered populations in lowland evergreen forest. Both the tree and its habitat have been extensively exploited.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4799, 19144

**Pterospermum yunnanense**
Sterculiaceae  
CR C2a  
China (Yunnan)  
A Yunnan endemic known only from two locations, Yiwa in Mengla County and Youluo Mountain in Jianghong County. The populations are relatively inaccessible on limestone cliffs and summit ridges. There are few mature individuals and regeneration is poor.

**Assessor:** Sun, W.  
**Refs:** 1818, 11847, 19055

**Pterostyrax psilophylla**
Styracaceae  
VU Alcd  
China (Guangxi, Guizhou, Hunan, Sichuan, Yunnan)  
Relatively widespread, the species is found through a range of altitudes and in various forest types. It is, however, not common and believed to be becoming scarcer because of habitat declines and degradation.

**Assessor:** Sun, W.  
**Refs:** 1818, 11847, 19055

**Pterogyna bequaertii**
Sterculiaceae  
VU Alcd  
Cameroon, Côte d’Ivoire, Democratic Republic of Congo, Gabon, Ghana, Nigeria  
A timber species occurring in forest areas in West and Central Africa. It is much rarer than, but commonly confused with, *P. macrocarpa*. The species appears to be suffering declines because of levels of exploitation through most of its range.

**Assessor:** Hawthorne, W.  
**Refs:** 2773, 6127, 6128, 6718, 12061

**Pterygota macrocarpa**
Sterculiaceae  
VU Alcd  
Cameroon, Côte d’Ivoire, Ghana, Nigeria, Sierra Leone  
A common tree of dry forests. Exploitation for the timber occurs at high levels throughout its range and is likely to be causing population declines. Regeneration is reported to be abundant in areas of logging damage.

**Assessor:** Hawthorne, W.  
**Refs:** 2773, 6128, 6718, 12061

**Rtilochaeta nudipes**
Malpighiaceae  
VU B1+2ac  
Argentina (Jujuy, Salta), Bolivia  
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.

**Assessor:** Prado, D.  
**Refs:** 19122

**Psychopoxys triadiata**
Euphorbiaceae  
VU B1+2c  
Malaysia (Peninsular Malaysia)  
Only a single collection of the species has been made, gathered from Bota Kiri Forest Reserve in Perek. The surrounding areas are being developed.

**Assessor:** Kochummen, K.M.  
**Refs:** 8464, 19073

**Psychosperma blesseri**
Palmae  
CR A1e  
Australia (Northern Territory)  
Restricted to rainforest near Darwin, this palm tree is scattered in the lowlands up to 50m. The entire population consists of approximately 500 mature individuals and is believed to have stabilised since the exclusion of feral pigs and water buffaloes from the area.

**Assessor:** Dowl, J.L.  
**Refs:** 19118
**Psychosperma gracile**  
Palmae  
Papua New Guinea (Bismarck Archipelago)  
Confined to New Ireland and New Britain, this palm tree is scattered in rainforest on both limestone and volcanic soils. Populations have declined because of rapid and extensive deforestation for plantation agriculture. This species can survive in open vegetation or in secondary forest if it is allowed to regenerate.  
Assessor: Essig, F.B.  
Refs: 19118

**Psychosperma hentyl**  
Palmae  
Papua New Guinea (Bismarck Archipelago)  
A taxonomically unique palm tree of lowland forest, restricted to eastern New Britain. Rapid and extensive deforestation for plantation agriculture has caused population decline.  
Assessor: Essig, F.B.  
Refs: 19118

**Pulea perryana**  
Cunoniaceae  
Fiji  
A fairly abundant tree, in forest and thickets on hillsides, crests and ridges in eastern Viti Levu. A single collection has been made in Ovalau.  
Assessor: World Conservation Monitoring Centre  
Refs: 5515, 6053, 18818

**Punica protopunica**  
Lythraceae  
Yemen (Socotra)  
The only congeneric relative of the pomegranate, *P. granatum*. The species remains widespread throughout the island on granite and limestone, occurring either as isolated individuals or as a co-dominant in patches of woodland or shrubland.  
Assessor: Miller, A.G.  
Refs: 2354, 19083

**Pycandra kaalaensis**  
Sapotaceae  
New Caledonia  
Occurring on ultramafic soils, the species is recorded from the base of various isolated massifs in the northwest, such as the southern slopes of Mont Kaala and Mont Pourn.  
Assessor: Jaffré, T. et al.  
Refs: 10351, 12630

**Pycnandra littoralis**  
Euphorbiaceae  
Kenya, Tanzania  
This species is restricted to areas of dry coastal forest, often on coral, from south-east Kenya to eastern Tanzania.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3356, 8814

**Pycnandra macrantha**  
Euphorbiaceae  
Tanzania  
Restricted to moist evergreen forest at medium elevations, this small tree is known only from the East Usambura Mountains and the South Nguru Mountains.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 2074, 3356, 17190

**Pyracantha koidzumii**  
Rosaceae  
Taiwan  
The species range is confined to the valley between Hu-lien and Taitung on the eastern side of the island. Shrubs are common in scrub along river banks and on lowland plains on sandy soils. No large individuals are found in the wild. Exploitation of the plant both for commercial trade and at a local level has led to population declines. Field surveys indicate that seedlings are scattered and few. No conservation or protection measures are in place.  
Assessor: Pan, F.J.  
Refs: 6469, 19050, 19053

**Pyrenaria pahangensis**  
Theaceae  
Malaysia (Peninsular Malaysia)  
A shrub or small tree confined to lowland rainforest in Pahang. This species is protected in the Taman Negara National Park.  
Assessor: Chua, L.S.L.  
Refs: 8464, 17140, 19673

**Pyrenaria serrata var. kunstleri**  
Theaceae  
Malaysia (Peninsular Malaysia)  
A variety found in lowland forest in Kedah, Perak, Penang, Pahang and Selangor.  
Assessor: Chua, L.S.L.  
Refs: 19073

**Pyrus anatolica**  
Rosaceae  
Turkey  
Assessor: Güner, A. & J. Zielinski  
Refs: 3489, 4863, 19165

**Pyrus hakkiariaca**  
Rosaceae  
Turkey  
Assessor: Güner, A.  
Refs: 3489, 4863, 19165

**Pyrus oxyprion**  
Rosaceae  
Turkey  
Assessor: Güner, A. & J. Zielinski  
Refs: 3489, 19165

**Pyrus salicifolia**  
Rosaceae  
Turkey  
Assessor: Güner, A. & J. Zielinski  
Refs: 3489, 7222, 19165

**Pyrus serikensis**  
Rosaceae  
Turkey  
Assessor: Güner, A. & J. Zielinski  
Refs: 3489

**Qualea calantha**  
Vochysiaceae  
Peru  
Known only from the type collection, the species occurs in Peruvian Amazon forest in the department of Loreto.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984
Qualea impexa
Vochysiaceae
Peru
The species is known only from the type collection taken from lowland Amazon forest in the department of Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Quararibea aurantiocalyx
Bombacaceae
Costa Rica, Panama
A species of evergreen rainforest with a restricted altitudinal range, occurring between 1000 and 1200m. In Panama the species is known only from a small population, containing few mature individuals, in the Cerro Tute in Veraguas. It is a little more widely distributed in Costa Rica, but again few mature individuals exist. The Panamanian population is unprotected and under some threat from deforestation. Further fieldwork is needed to search for populations in the intervening zone between these two locations.
Assessor: Mitré, M.
Refs: 1989, 16772

Quararibea dolichopoda
Bombacaceae
Panama
Endemic to Panama, the species is known from a few collections taken from lowland semi-deciduous rainforest within an area stretching from the centre of the country to the Colombian border. It is not common and in most parts of its range the habitat is declining because of the increasing settlement of the land, ranching and agriculture. Only a small part of the population is protected within national parks.
Assessor: Mitré, M.
Refs: 1989, 8153, 16772

Quararibea dolichosiphon
Bombacaceae
Panama
This species is known only from the type collection made in 1968.
Assessor: World Conservation Monitoring Centre
Refs: 15037, 16772

Quararibea gomeziana
Bombacaceae
Costa Rica, Panama
Restricted to lowland forest in an area extending from north-west Panama to north-east Costa Rica, the species occurs in sparsely scattered small populations within a rapidly developing region. Only a single population in San Ramón in Costa Rica occurs within a forest reserve. All other populations are unprotected and under severe threat from agricultural and industrial developments, and from urbanisation.
Assessor: Mitré, M.
Refs: 1989, 16772

Quararibea jefensis
Bombacaceae
Panama
The species has been collected only a few times, from lowland evergreen rainforest in two provinces. It does not appear to be common, although its full distribution may not yet have been revealed. Cerro Jefe is the only protected area in which the species occurs. Elsewhere the habitat is under threat from increasing settlement and industrial, touristic and agricultural developments.
Assessor: Mitré, M.
Refs: 15037, 16772

Quararibea pendula
Bombacaceae
Costa Rica, Panama
The species occupies a small area between north-east Costa Rica and north-west Panama, where it is restricted to lowland areas of semi-deciduous rainforest. In Costa Rica only a few records exist, all in the vicinity of Río Yorkín, very near the Panama border. There are various distinct occurrences in Panama, some in the Palo Seco Protection Forest. Elsewhere the habitat is unprotected and extensively cleared for cultivating bananas, cocoa and other commercial crops.
Assessor: Mitré, M.
Refs: 1989, 16772

Quararibea platyphylla
Bombacaceae
Costa Rica, Panama
A lowland rainforest species. In Costa Rica several collections have been made in Bucra, Puntarenas, near the Panama border. In Panama collections have come from the Atlantic slopes through the length of the country to Colombia, into which it possibly extends. Populations are small and under pressure from increasing land settlement, logging and agriculture, particularly banana plantations.
Assessor: Mitré, M.
Refs: 1989

Quararibea pterocalyx
Bombacaceae
Colombia, Costa Rica, Panama, Venezuela
Scattered as isolated individuals, the species is distributed in lowland evergreen to semi-evergreen rainforest, preferring humid or swampy zones. It is recorded from Alajuela and Guanacaste in Costa Rica, from Bocas del Toro to Darién in Panama, being present in larger numbers in the Canal area and Barro Colarado Island, and from Urabá and other areas of Colombia. No information is available on its distribution in Venezuela. Throughout the range the habitat is affected by the growing human population, agricultural activities and logging.
Assessor: Mitré, M.
Refs: 1989

Quararibea sanblasensis
Bombacaceae
Colombia, Panama
In Panama, the species has been collected only from San Blas, very close to the border with Colombia, in lowland semi-deciduous rainforest along river banks. There are reported to be a few dispersed individuals, including a very few adult trees. The species' range in Colombia is restricted to a small area in Antioquia. Only the Panamanian population is contained within a protected area. The tree provides medicine, food, fuel, timber and oils at a local level.
Assessor: Mitré, M.
Refs: 1989

Species Summaries

467
**Quararibea santaritensis**  
Bombacaceae  
Panama  
The species' description is based on a single collection from 1932. It came from an area of deciduous woodland in the Santa Rita Hills, Colón. Much of this area has been cleared for agriculture and grazing.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 16772

**Quararibea velutina**  
Bombacaceae  
Peru  
Known only from the type collection, this Amazonian forest species occurs in Loreto.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Quararibea yunckeri**  
Bombacaceae  
Honduras  
A rarely collected species, of somewhat uncertain nomenclature.  
Assessor: Nelson, C.  
Refs: 13995

**Quercus acerifolia**  
Fagaceae  
USA (Arkansas)  
Three localities of this species are known, two of them having been discovered recently, in open glades and shrubland in central-west Arkansas. The populations are small, each numbering less than 500, but stable and contained within a national forest. Data accumulated by Stoyoff and Hess support the contention that the taxon is a species and not a subspecies of Q. shumardii.  
Assessor: Hess, W.J.  
Refs: 8470, 10353, 19145

**Quercus arkansana**  
Fagaceae  
USA (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Texas)  
Fewer than five localities of this woodland species are known to exist. Populations are thought to be declining because of habitat destruction, mainly through grazing and conversion to farmland.  
Assessor: Nixon, K. et al.  
Refs: 9653

**Quercus aucheri**  
Fagaceae  
Greece, Turkey  
A small tree very similar to Q. coccifera. It grows in the Aegean region on the Greek islands and in Anatolia in Turkey. Populations are localised and isolated.  
Assessor: World Conservation Monitoring Centre  
Refs: 2915, 3489, 4863, 7538

**Quercus x basaseachicensis**  
Fagaceae  
Mexico (Chihuahua, Durango)  
A hybrid between Q. rugosa and Q. depressipes known from four sites in Chihuahua and one in Durango in submontane woodland or scrub. The populations are isolated and none are believed to be large.  
Assessor: Hess, W.J.  
Refs: 7538, 9653, 19145

**Quercus benthamii**  
Fagaceae  
Guatemala, Mexico (Chiapas, Oaxaca)  
Until the taxonomy of Central American specimens is confirmed, the exact range of this species cannot be consolidated but could extend to southern parts of Central America. Because of the rate of destruction of the moist forest habitat in the last few decades the species qualifies as threatened.  
Assessor: Nixon, K. et al.  
Refs: 7980, 9653, 19161

**Quercus boyantii**  
Fagaceae  
USA  
The status of this species is not well consolidated. It appears to have become extinct in the areas from which it was known. There is, however, a possibility that it occurs in Mississippi and Louisiana.  
Assessor: World Conservation Monitoring Centre  
Refs: 19145

**Quercus brandegeei**  
Fagaceae  
Costa Rica  
A taxonomically doubtful species, apparently endemic to the department of Alajuela.  
Assessor: Nixon, K. et al.  
Refs: 6678, 7538, 7980, 9653

**Quercus breneisii**  
Fagaceae  
Costa Rica  
A tree confined to scrub on Edward's Plateau.  
Assessor: Nixon, K. et al.  
Refs: 3786, 7538, 7980, 9653

**Quercus buckleyi**  
Fagaceae  
USA (Oklahoma, Texas)  
A tree confined to scrub on Edward's Plateau.  
Assessor: Nixon, K. et al.  
Refs: 3786, 7538, 7980, 9653

**Quercus bumbleoides**  
Fagaceae  
Costa Rica, Guatemala, Honduras, Mexico (Chiapas), Nicaragua, Panama  
The montane forest habitat of this species has suffered serious declines in past decades. The tree can grow to a large size and has obvious value as a timber tree.  
Assessor: Nixon, K. et al.  
Refs: 730, 7538, 9653, 11715, 19161

**Quercus cedrosensis**  
Fagaceae  
Mexico (Baja California)  
A species restricted to a specialised sclerophyllous habitat at lowland to montane altitudes. Cedros Island suffers from overgrazing by goats. More information on the regeneration of this species may allow it to qualify for the status of endangered.  
Assessor: Nixon, K. et al.  
Refs: 7538, 8470, 9653, 12945
**Quercus cerroides**
Fagaceae
Spain
The taxonomic status of this localised oak is uncertain. It may be a hybrid. The taxon occurs in dry montane forest in Catalonia, Aragon, Mallorca, La Rioja and Navarra, possibly extending into France. Fire, forest management activities and hybridisation pose threats to the taxon.
Assessor: Vivero, J.L. et al.
Refs: 5287, 7222, 7741

**Quercus coahuilensis**
Fagaceae
Mexico (Coahuila)
It is suspected that the species will prove to be threatened when the area of occupancy is calculated, taking into account the altitudinal range of the species.
Assessor: Nixon, K. et al.
Refs: 7538, 9653

**Quercus convallata**
Fagaceae
Mexico (Jalisco, Nayarit)
The taxonomic status of this species is dubious.
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 14250

**Quercus costaricensis**
Fagaceae
Costa Rica
Occurring in the montane forest of Volcan Irazú and Cerro Chirripó, the species is restricted to an area of occupancy of less than 2000km². Although deforestation has been extensive in the past, these areas are now given some degree of protection.
Assessor: Nixon, K. et al.
Refs: 7980, 9653, 14487

**Quercus deligneusiana**
Fagaceae
Mexico (Chihuahua)
A species of dry montane scrub, known only from one population system in the valley of Río Concho and north along Río Grande.
Assessor: Nixon, K. et al.
Refs: 412, 9653, 11715

**Quercus depressipes**
Fagaceae
Mexico (Chihuahua, Durango, Jalisco, Zacatecas, USA (Texas)
A shrub scattered in montane grasslands over a wide range. Population sizes and declines are not documented. The US locality is vulnerable but protected.
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 10353, 11715

**Quercus devia**
Fagaceae
Mexico (Baja California)
Two or three populations occur in dry montane forest, where grazing pressure is high. The mainland Mexican species, *Q. vinacea*, may be synonymous, in which case the species would qualify for a status of lower risk.
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 11715, 12945

**Quercus dumosa**
Fagaceae
Mexico (Baja California, USA (California)
A number of populations (e.g. Santa Barbara, Hollywood and Griffith Park) have disappeared. The lowland scrub habitat of the remaining populations is under threat from pollution and the expansion of urban and industrial areas.
Assessor: Nixon, K. et al.
Refs: 7538, 8470, 9653

**Quercus engelmannii**
Fagaceae
Mexico (Baja California, USA (California)
Extensive declines of the sclerophyllous habitat of the species have been observed over the past 50 years. Regeneration of the species is poor and the remaining habitat is under threat from grazing and urban, agricultural and industrial developments. Only one tree remains on Santa Catalina Island in California but part of the population on Santa Rosa is protected in the Santa Rosa Plateau Reserve.
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 19193

**Quercus excelsa**
Fagaceae
Mexico (Jalisco, Veracruz)
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 14250

**Quercus flagellifera**
Fagaceae
Guatemala
Confined to the moist montane forests of east and central Guatemala, the species has experienced declines in its habitat in the last 50 years. There are a number of estimated rates of deforestation: all exceed an annual rate of one percent.
Assessor: Nixon, K. et al.
Refs: 7980, 9653

**Quercus galeana**
Fagaceae
Mexico (Nuevo León, Tamaulipas)
A rare species, characterised by the leaves being vertically appressed to the twigs. Occurring in submontane to montane chaparral, it is restricted to two populations occupying a narrow band (150km x 10-20km) from Galeana, Nuevo Leone, to the Miquihana region in Tamaulipas.
Assessor: Nixon, K. et al.
Refs: 7538, 9653

**Quercus georgiana**
Fagaceae
USA (Alabama, Georgia, South Carolina)
Small isolated populations are restricted to granite outcrops, occupying an area less than 500km². The impact of tourism is considerable on Stone Mountain. Drought: poor regeneration, soil erosion and compaction are all weakening the status of the species.
Assessor: Nixon, K. et al.
Refs: 3786, 7538, 9653

**Quercus germana**
Fagaceae
Mexico
A species of submontane seasonal dry forest, which has
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experienced dramatic declines over the last few decades. Forest has been converted for agricultural use, especially coffee plantations. The trees are often decked with an array of densely packed epiphytes. 
Assessor: Nixon, K. et al. 
Refs: 7538, 9653, 11715

**Quercus graciliformis**
Fagaceae
CR C2b
USA (Texas)
One small isolated population exists in riparian oak woodland in the Chisos Mountains. The locality is threatened by the activities of tourists from a nearby camping ground and by occasional drought. Previous records from Mexico are erroneous. 
Assessor: Nixon, K. et al. 
Refs: 9653, 10353

**Quercus guatemalensis treleasei**
Fagaceae
DD
Costa Rica, Panama
The taxonomic status of the species is uncertain. It is confined to Chiriqui in Costa Rica and Cartago in Panama in wet montane forests. 
Assessor: Nixon, K. et al. 
Refs: 7980, 9653

**Quercus hinckleyi**
Fagaceae
CR A2b, B1+2cd
Mexico (México State)
A shrub with holly-like leaves, known from 11 isolated populations, nine of which are in the Big Bend Ranch State Natural Area. Most populations consist of fewer than 100 individuals and cover an area less than five acres. Historical climate change is thought to be the main factor that has caused the species to become rare. Hybridization with other *Quercus* species, roadway construction, collecting by horticulturists, drought and grazing are threats today. Although acorn yields are good, all reproduction appears to be vegetative. The species is protected by the US Endangered Species Act and a recovery plan was devised in 1992. 
Assessor: Nixon, K. et al. 
Refs: 7538, 9653, 10353, 11683

**Quercus hintonii**
Fagaceae
CR B1+2ac
Mexico (México State)
A submontane to montane dry forest species which is confined to a small area (less than 10 x 10km) along a road. Much of the area is in the process of conversion into avocado plantations and human settlements. 
Assessor: Nixon, K. et al. 
Refs: 4934, 9653

**Quercus hypoxantha**
Fagaceae
DD
Mexico (Coahuila, Nuevo León)
It is suspected that this species will prove to be threatened when the area of occupancy is calculated taking into account the altitudinal range of the species. 
Assessor: Nixon, K. et al. 
Refs: 4934, 7538, 9653

**Quercus ilex ssp. ballota**
Fagaceae
LR/nt
Portugal, Spain
This species is present in a large part of the Iberian Peninsula within areas of lowland dry forest up to 2000m. It is locally abundant, forming extensive woodlands in places. Populations are exposed to overcutting, fires, expanding agriculture and declining water availability, but trees are legally protected throughout the range. 
Assessor: Vivero, J.L. et al. 
Refs: 7741

**Quercus invaginata**
Fagaceae
DD
Mexico (Coahuila)
It is suspected that the species will prove to be threatened when the area of occupancy is calculated taking into account its altitudinal range. 
Assessor: Nixon, K. et al. 
Refs: 7538, 9653, 11715

**Quercus x macdonaldii**
Fagaceae
VU D2
USA (California)
The species is restricted to a few scrubby localities in Santa Rosa, Santa Catalina and Santa Cruz Islands. Control of grazing and the removal of sheep have helped oak regeneration on Santa Cruz Island. 
Assessor: Nixon, K. et al. 
Refs: 9653, 10353

**Quercus macdougallii**
Fagaceae
VU D2
Mexico (Oaxaca)
A distinctive species known only from the type locality in the dry montane forests of Oaxaca. It has not been collected recently and it is biologically poorly known. 
Assessor: Nixon, K. et al. 
Refs: 7538, 9653, 11715

**Quercus miquihuanaensis**
Fagaceae
EN B1+2e
Mexico (Nuevo León, Tamaulipas)
An endemic of Peña Nevada and Miquihuana, locally common in montane pine–oak forest and also chaparral, covering an area of less than 500km². Logging activities and overgrazing threaten the habitat. 
Assessor: Nixon, K. et al. 
Refs: 7538, 9653

**Quercus ogilwethorpeii**
Fagaceae
EN B1+2ce
USA (Georgia, Mississippi, South Carolina)
This species is known from a small area in the piedmont of north-east Georgia, neighbouring western South Carolina and also from a disjunct population in Mississippi. In total, approximately 1000 individuals, covering an area of occupancy less than 150km², are estimated to exist. The most common habitats are roadsides and old fence rows. A survey in 1985 failed to locate 11% of the previously known sites. Poor seed viability and chestnut blight are also reported. 
Assessor: Nixon, K. et al. 
Refs: 7538, 9653

470
Quercus parvula var. parvula
Fagaceae EN B1+2ce
USA (California)
Two small populations on Santa Cruz Island and five or six populations in Santa Barbara County are known.
Occurring in maritime chaparral and pine forests, no population extends over more than 10km². Habitat degradation and grazing are threats on Santa Cruz Island.
Assessor: Nixon, K. et al.
Refs: 3786, 9653, 10353, 14430

Quercus pensilaris
Fagaceae DD
Mexico (Baja California)
A montane species. The number of localities and population status are unknown.
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 12945

Quercus perpalida
Fagaceae DD
Mexico (Baja California Sur, Chihuahua, Sinaloa, Sonora)
Assessor: Nixon, K. et al.
Refs: 7538, 9653

Quercus petraea ssp. huguetiana
Fagaceae LR/cd
France, Spain
Occurring in moist forest up to altitudes of 1800m, the species is abundant over a relatively wide range. It is also legally protected in Spain.
Assessor: Vivero, J.L. et al.
Refs: 7741

Quercus priniana
Fagaceae DD
Mexico (Jalisco, Sinaloa)
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 17165

Quercus puruliana
Fagaceae VU A1c
Belize, Guatemala, Honduras, Mexico (Chiapas), Nicaragua
A montane forest species, abundant in areas, but subject to general declines in habitat.
Assessor: Nixon, K. et al.
Refs: 4974, 9653, 11715, 19161

Quercus rapuahuensis
Fagaceae VU A1c
Costa Rica, Panama
A moist forest species which has been subject to the general forest declines in this area. Further investigation may show that the species is more seriously threatened.
Assessor: Nixon, K. et al.
Refs: 7272, 9653, 11715, 14487

Quercus robur ssp. imeretina
Fagaceae VU B1+2c
Georgia, Russia
A rare tree endemic to Kokhida in western Georgia, with a small part of the range extending into Russia along the Black Sea coast. The population is declining through felling and agriculture. The wood is considered a valuable timber.
Assessor: Firsov, G.A.
Refs: 7538, 14458, 19056

Quercus x robusta
Fagaceae DD
USA (Texas)
This species is confined to the Chisos Mountains in Brewster County, where it is found in moist wooded canyons.
Assessor: Hess, W.J.
Refs: 3786, 10353, 19145

Quercus rysophylla
Fagaceae DD
Mexico (Nuevo León, San Luis Potosí, Tamaulipas)
The known populations are small but their extent is not known.
Assessor: Nixon, K. et al.
Refs: 4934, 7538, 9653, 11715

Quercus skinneri
Fagaceae VU A1c
El Salvador, Guatemala, Honduras, Mexico (Chiapas)
The species is widespread and often occurs in abundance in moist montane forests. It is also frequently planted. General rates of deforestation in recent decades have caused significant population declines.
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 11715, 19161

Quercus skutchii
Fagaceae DD
Guatemala, Mexico (Chiapas)
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 11715

Quercus subspathulata
Fagaceae VU A1c
Mexico (Durango, Jalisco, Nayarit, Sinaloa)
A forest species which has suffered extensive destruction of its habitat.
Assessor: Nixon, K. et al.
Refs: 7538, 8470, 9653, 14250

Quercus x tardifolia
Fagaceae CR D1
USA (Texas)
It is thought no more than five trees exist in dry montane woodlands in the Chisos Mountains. The hybrid is a product of Q. hypoxantha and Q. gravesii. One of the parents is now absent from the area.
Assessor: Nixon, K. et al.
Refs: 9653, 10353

Quercus tomentella
Fagaceae VU B1+2ce
Mexico (Guadalupe Is.), USA (California)
The regeneration of the species is hampered by overgrazing in the dry forest areas to which it is restricted on the channel islands of California and Guadalupe Island of Mexico. Populations on Guadalupe Island, in particular, have declined dramatically in recent years.
Assessor: Nixon, K. et al.
Refs: 5988, 7538, 7980, 9653, 10353, 19193
**Quercus tonduzii**
Fagaceae
Costa Rica
A species of uncertain taxonomic status, found in the mountains of central Costa Rica in Alajuela. One collection from 1896 is cited from Volcan Poas.
Assessor: Nixon, K. et al.
Refs: 7538, 7980, 9653, 14487

**Quercus undata**
Fagaceae
Mexico (Durango)
Assessor: Nixon, K. et al.
Refs: 7538, 9653

**Quercus uxoris**
Fagaceae
Mexico (Colima, Guerrero, Jalisco)
The extent of population declines is not documented but the level of forest destruction has been dramatic.
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 17165

**Quercus vincentensis**
Fagaceae
El Salvador, Guatemala, Mexico
Declines in population numbers have not been recorded but the species occurrence in an area of extensive forest destruction qualifies it as vulnerable.
Assessor: Nixon, K. et al.
Refs: 7538, 7980, 9653, 19161

**Quercus xolapensis**
Fagaceae
Mexico (Chiapas, Veracruz)
Assessor: Nixon, K. et al.
Refs: 7538, 9653, 19161

**Quercus zempoaltepecana**
Fagaceae
Mexico (Oaxaca)
Assessor: Nixon, K. et al.
Refs: 7538, 9653

**Quiina colonensis**
Quinaceae
Costa Rica, Panama
A lowland rainforest species, occurring in Colón and Cochlé Provinces in Panama and in Heredia and Puntarenas, including a locality in Corcovado National Park, in Costa Rica. There are also specimens which are tentatively identified as this species in Kunayala Indigenous Reserve. In most of its range, the species appears to be uncommon and under considerable pressure from increasing settlement, agriculture and development.
Assessor: Mitre, M.
Refs: 7980, 15037, 16772

**Quiina jamaicensis**
Quinaceae
Jamaica
A species with a local distribution confined to northwestern parishes in woodland on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980
Species Summaries

Rapanea coclesis
Myrsinaceae
Panama
A species known only from two collections.
Assessor: World Conservation Monitoring Centre
Refs: 16772

Rapanea gilliana
Myrsinaceae
South Africa (Eastern Cape)
A shrub or small tree which occurs in coastal forest and scrub on dunes or rocky outcrops from Humbersdorp to Bathurst. Its range is slowly becoming fragmented by coastal developments, especially the construction of settlements and holiday resorts. The species occurs in at least two protected areas and possibly in a third.
Refs: 689, 19218

Rapanea perakensis
Myrsinaceae
Malaysia (Peninsular Malaysia)
A shrub or small tree inhabiting forested ridge tops between 700m and 2100m. The species is recorded in Kelantan, Terengganu, Perak and Pahang and is afforded protection in Taman Negara National Park.
Assessor: Chew, L.S.L.
Refs: 8464, 19073

Rapanea seychellaraum
Myrsinaceae
Seychelles
The entire population amounts to fewer than 50 individuals. There are six sites on Mahé and single sites on Silhouette and Praslin. Montagne Planeau has a large and healthy population. Most other locations contain between one and five trees. No seedlings have been reported. Populations are recorded within Morne Seychellois and Praslin National Parks and in forest areas protected by the Nature Protection Trust of Seychelles.
Assessor: Nature Protection Trust of Seychelles
Refs: 10610, 17229, 19025

Rapanea striata
Myrsinaceae
India (Karnataka)
The species is currently known from two records from widely separated localities in submontane evergreen forest in the Western Ghats.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Raphia australis
Palmae
Mozambique, South Africa (KwaZulu-Natal)
This very large palm occurs in swamp forest around Kosi Bay in northern KwaZulu-Natal, extending northwards along the coast of southern Mozambique, occurring along river valleys, as far as Inhambane. The plants flower once, after about 30 years, and then die after setting fruit. They can form very dense groves and in some places they have naturalised after planting, e.g. at Mtunzini on the Zululand coast, which is now a national monument. The plants at Kosi Bay are not under threat and are contained within a conservation area, although local use of the plants is allowed. The 12 ha Botole Special Reserve 40 km north of Maputo, is supposedly the most southerly occurrence of this species in Mozambique, and contains 150 plants. This subpopulation is under threat because of habitat clearance for subsistence agriculture within the reserve.
Refs: 689, 3018, 6809, 19118, 19218

Rauwolfia sachetiae
Apocynaceae
French Polynesia (Marquesas Is.)
Populations are known from Hiva Oa and Nuku Hiva.
Refs: 14513

Ravena albicans
Palmae
Madagascar
A palm known from two recently identified localities in lowland moist forest on ultramafic soil. One population contains up to 40 trees with trunks, 100 young trees without trunks and several seedlings.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravena diansfieldii
Palmae
Madagascar
A Madagascan endemic confined to moist forest in the area between Marojejy Mountains and Ifanadiana. Populations at Ifanadiana are under threat of destruction; population numbers at each site are low.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravena glauca
Palmae
Madagascar
A Madagascan endemic confined to dry forest in the centre and south. The status of populations in Andringitra is unknown, no collections having been made there since 1922. Elsewhere it is known only from Isalo, where the population size is estimated to be made up of a few hundred individuals.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravena hildebrandti
Palmae
Comoros
Confined to the islands of Grand Comore, Moheli and Anjouan, the species is considered endangered because all forest in the Comoros Islands is under severe threat. No collections have been made for a considerable time.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravena julietiae
Palmae
Madagascar
Occurring in moist lowland forest, the species is restricted to east Madagascar between Mananara Avaratra and Vangaindran. The population numbers are very low: fewer than 50 trees have been counted. The more southern localities, where most of the trees are found, are rapidly being destroyed.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118
Ravenea krocianna
Palmae
Madagascar
An endemic palm found only in one site at Andohahela in Madagascar, inhabiting submontane moist forest. There are approximately 60 individuals at this site.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea lakatra
Palmae
EN D1
Madagascar
An endemic palm of eastern Madagascar, occurring between Andasibe and Vangaindrano. The species is found in a very limited number of sites in moist lowland forest on slight mid-slopes or ridge crests. Several of these sites are being rapidly destroyed. The population at Mantady consists of pruned rosettes as a result of the harvesting of the young leaves for fibre. The two more southerly populations contain fewer than 20 trunked trees.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea latisecta
Palmae
EN D1
Madagascar
This species is known from a single population of four trees at Andasibe in Madagascar. The habitat is submontane moist forest on steep slopes near the hill crest.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea louvelii
Palmae
EN D1
Madagascar
Confined to Andasibe in Madagascar, this species inhabits moist forest on a steep slope near the crest between 800m and 1000m. There are fewer than 25 individuals with trunks and rejuvenation is minimal. The population exists outside the protected area.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea madagascariensis
Palmae
LR/nt
Madagascar
An endemic of central and east Madagascar, inhabiting moist to dry hill forest on steep slopes or hill crests between 25m and 1700m. The species is fairly widespread and in some areas locally common. One population is protected in Mantady National Park.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 19118

Ravenea moorei
Palmae
CR D1
Comoros
Only two female palm trees are known from a patch of secondary submontane rainforest, last seen in October 1993.
Assessor: Johnson, D.
Refs: 19118

Ravenea musicalis
Palmae
VU D1+2
Madagascar
A true water palm, endemic to south Madagascar, where it inhabits flowing water to a depth of 0.5–2.5m along a single river. The population consists of about 450 trees. This aquatic environment is very changeable and the palm is somewhat exposed and vulnerable.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea nana
Palmae
EN B1+2c
Madagascar
A palm confined to eastern Madagascar, between Marojejy and Andohahela, where it inhabits montane ericoid bush or forest on rocky sites on gneiss and quartzite. The species is known only from three localities and has not been collected for 30 years.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea rivularis
Palmae
VU A1c
Madagascar
An endemic palm of south-central Madagascar, confined to Mangoky and Onilahy River Valleys. Only two populations are known, occurring in shallow standing water, river banks and swampy valley bottoms.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 19118

Ravenea robustior
Palmae
LR/nt
Madagascar
A Madagascan endemic occurring in moist forest in valley bottoms near water or on hill crests up to 1000m. Its occurrence, although widespread, ranging from Manongarivo to Marojejy and south to Andohahela, is not common. The species is recorded in Ranomafana National Park, Marojejy, Manongarivo Reserve and at Analamazaotra, but trees continue to be cut within the reserves. If harvesting of palm heart and cutting for the timber continue at present rates, the status of the species may become threatened.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea sambiranensis
Palmae
VU A1c
Madagascar
Occurring in north-west, west and east Madagascar, the species is found in various habitats, such as liitoral forest on white sand, dense moist forest, dry montane forest and riverine forest remnants in the west. Although widespread, the populations are small and threatened by felling, exploitation of the palm heart and increasing settlement.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Ravenea xerophila
Palmae
EN D1
Madagascar
Known only from south Madagascar, between Ampanihy and Ampingaratra Mountains, the species inhabits dry spiny bush or low dry forest on laterite or gneiss. In recent studies two populations have been located, consisting of 65 trunked trees and 80 seedlings. Overgrazing is destroying the Tranoroa site.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

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Species Summaries

Ravenia biramosa var. peruviana
Rutaceae VU D2 Peru
A variety which is known only from the type collection taken from Amazonian forest in Loreto.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Ravenia swartzianna
Rutaceae CR B1+2c Jamaica
This species is known only from the type, collected at the beginning of the century.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Rawsonia burtt-davyi
Flacourtiaeceae VU B1+2bc, D2 Malawi
Originally known under the genus Dasylepis, this tree is confined to a small area of montane evergreen forest on Mount Mulanje. Although the habitat is protected as a forest reserve, there have been significant declines in its extent and quality because of exploitation for wood, encroachment of subsistence cultivation and fire. Plans have now been drawn up to ensure the conservation of the remaining natural resources and the prevention of further illegal activities.
Assessor: World Conservation Monitoring Centre
Refs: 10090, 18965

Rawsonia reticulata
Flacourtiaeceae LR/ed Malawi, Tanzania
A montane forest species, which is regarded as distinct but strongly resembles R. burtt-davyi. A population occurs at the north of Lake Nyasa, the Tanzanian part of Lake Malawi, and the species is believed to range into northern Malawi.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Recchia simplicifolia
Simaroubaceseae EN A1c, B1+2c Mexico (Oaxaca, Veracruz)
A rainforest tree confined to high-precipitation forest in the Uxpanapa-Chimalapa region. This small genus is endemic to Mexico.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 5993, 7180

Reevesia rotundifolia
Sterculiaeceae CR B1+2c China (Guangxi)
The species is restricted to a few localities on Shiwhanshan. It is a scarce component of the understorey in monsoon forest. Recent searches into some of the original locations have found the forest cleared and the population destroyed.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Rhederodendron macrocarpum
Styracaceae LR/nt China (Guangxi, Guizhou, Sichuan, Yunnan), Viet Nam
This is one of the dominant components of broadleaved semi-deciduous forest above 1200m in south-west China, also occurring in scattered localities in northern and southern provinces in Viet Nam. Stands in China are said to have become more sporadic because of the extensive logging and clearing of the species habitat. The timber is used domestically.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 15357, 19055

Retrophyllum minor
Podocarpaceae EN C1+2a New Caledonia
Populations of this small rheophyte are very restricted in range, confined to river banks and lake shores on the Plaine des Lacs. Protection in the Châte de la Madeleine Reserve is inadequate. There are threats from fluctuations in the water table and exposure to fires.
Assessor: Jaffré, T. et al.
Refs: 4391, 10351, 12630, 18751

Retrophyllum piresii
Podocarpaceae DD Brazil (Rondônia)
An endemic to Serra Pacas Novos.
Assessor: SSC Conifer Specialist Group
Refs: 374, 4391, 19127

Retrophyllum rospigliosii
Podocarpaceae LR/nt Colombia, Ecuador, Peru, Venezuela
Assessor: SSC Conifer Specialist Group
Refs: 374, 3047, 4391, 10194, 18751, 19127

Reutealis trisperma
Euphorbiaceae VU A1cd Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.
Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919, 5651, 7673

Reynoldsia sandwicensis
Araliaceae LR/nt USA (Hawaii)
A variable species of dry to occasionally moist forest up to 800m on Niihau, Oahu, Molokai, Lanai, Maui and Hawaii Islands.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Reynosia jamaicensis
Rhamnaceae CR B1+2c, C2b Jamaica
The only known locality exists in a woodland area on limestone in Hanover Parish, part of the Dolphin Head.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Rhamnella gigiicata
Rhamnaceae VU D2 Pakistan
A large shrub or tree, usually growing up to 5 to 7m, known only from the type gathering in Gilgit between 1600 and 2450m. The young shoots and leaves are used as fodder. More information may indicate a more serious threat category is appropriate.
Assessor: World Conservation Monitoring Centre
Refs: 5995

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**Rhamnidium caloneurum**
Rhamnaceae  
Panama
No new reports of the species have been made since the original collection was taken from Bocas del Toro. The general area of collection has been little studied.
Asseessor: Mitre, M.
Refs: 7272, 7980, 16772

**Rhamnidium dictyophyllum**
Rhamnaceae  
Jamaica
A shrub or tree, very rare and confined to upland woodland in rocky limestone areas in Manchester Parish.
Asseessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

**Rhamnus capraefolia var. matudai**
Rhamnaceae  
Mexico (Veracruz)
Asseessor: Ramirez-Marcial, N. & M. Gonzalez-Espinosa
Refs: 7980, 11723

**Rhamnus crenulata**
Rhamnaceae  
Spain (Canary Is.)
Endemic to the Canary Islands, the species is distributed fairly abundantly in dry scrub. Housing developments, grazing and invasive plants all pose threats to the remaining populations. The species is listed in government legislation of 1991.
Asseessor: Bañares, A. et al.
Refs: 19022

**Rhamnus glandulosa**
Rhamnaceae  
Portugal (Madeira), Spain (Canary Is.)
Occurring in undisturbed cloud forest or *laurel Silva* above 800m, this uncommon species is largely contained within protected areas. The greatest threat to remaining populations comes from burning. It is covered by regional legislation.
Asseessor: Bañares, A. et al.
Refs: 1512, 19022, 19131

**Rhamnus integrifolia**
Rhamnaceae  
Spain (Canary Is.)
Found only in the Cumbres and Barrancos in the south of Tenerife, the species occupies a wide altitudinal range in dry woodland and scrub. Populations appear to be stable, although restricted. It is listed in government legislation of 1991.
Asseessor: Bañares, A. et al.
Refs: 19022

**Rhaphithamnus venustus**
Verbenaceae  
Chile (Juan Fernandez Is.)
A tree of upper montane forest. Preliminary data indicate the species is confined to less than 100km². More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF* to save the native plants. There are two species in the genus, the second being found on mainland Chile.
Asseessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 7980, 14140

**Rhaptopetalum belingense**
Scytopletaeae  
Gabon
An endemic to the Belinga Mountains.
Asseessor: World Conservation Monitoring Centre
Refs: 15790

**Rhaptopetalum sindarense**
Scytopleptaeeae  
Gabon
A species collected in areas of closed forest in Ngounye and in Lope Forest Reserve. Much of Gabon's forests are poorly explored and it is possible the species has a wider range. There is concern over the extent to which these forests are now under concession to logging companies.
Asseessor: World Conservation Monitoring Centre
Refs: 7142, 14958, 15790

**Rheedia aristata**
Guttiferae  
Cuba
Populations of this uncommon shrub or tree have been recorded from numerous localities of semi-deciduous forest on limestone or serpentine in western Cuba. The species is threatened by overexploitation, mainly as a source of medicine, and the habitat is threatened by urban development and conversion for agriculture, ranching and tourism.
Asseessor: Areces-Mallea, A.E.
Refs: 9522, 11403, 19149

**Rhipidanthe chlorantha**
Rubiferae  
Tanzania
Endemic to the North Uluguru Mountains, this is a moist evergreen forest species recorded only at altitudes above 1450m. The genus is monospecific.
Asseessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5204

**Rhododendron album**
Ericaceae  
Indonesia (Java)
A montane forest species occurring between 1200 and 1700m in remaining forest patches in west and central Java. These areas, although they are not as badly affected as forest at lower elevations, are under severe pressure from the activities of the surrounding human populations.
Asseessor: World Conservation Monitoring Centre
Refs: 9078

**Rhododendron cyanocarpum**
Ericaceae  
China (Sichuan, Yunnan)
Known only from Diancang Mountain in Yunnan and in Muli in Sichuan, the species occurs as a shrub or small tree in remaining areas of forest above 3000m. Overcutting and loss of the habitat are causing population declines.
Asseessor: World Conservation Monitoring Centre
Refs: 1818, 11847

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Rhododendron dalhousiae var. rhabdotum
Ericaceae
VU B1+2c
Bhutan, China, India (Arunachal Pradesh)
An epiphytic shrub or small tree collected in 1915 from Bhutan and subsequently from Kameng District in Arunachal Pradesh and China. Road building and other developmental projects are threatening the Indian population. It is a prize-winning ornamental.
Assessor: World Conservation Monitoring Centre
Refs: 3013, 7147

Rhododendron fictolacteum
Ericaceae
LR/cd
China (Sichuan, Yunnan)
A species of subalpine coniferous forest, occurring between 2800 and 3900m, in north-west Yunnan and Muli in south-west Sichuan. Some of the sites are designated nature reserves but the effectiveness of their protection should be monitored. Trees, especially the larger individuals, have been heavily cut for fuelwood in places.
Assessor: Sun, W.
Refs: 1818, 11847, 19055

Rhododendron jucundum
Ericaceae
VU D2
China (Yunnan)
An endemic of Diane in Dali, Yunnan. It occurs in subalpine coniferous forest between 3500 and 3900m, where it frequently appears crooked and contorted from the effects of strong winds and heavy snow. The area is designated a nature reserve but, at present, the management measures are not thought to be sufficient to ensure the species’ protection.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Rhododendron kanehirai
Ericaceae
EW
Taiwan
A beautiful ornamental shrub, which became extinct in 1984 during the construction of a dam and the flooding of its only known locality in the wild at Feitsui. For several centuries it has been in cultivation and is widely planted in gardens around the country.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 19050, 19051

Rhododendron loerzingii
Ericaceae
VU B1+2c
Indonesia (Java)
This species is uncommon and confined to areas of scrub or grassland on Mount Turep, Merbabu and Sumbing. The soil is noted to be fertile. These areas, although less affected than those at lower elevations, are under severe pressure from the activities and demands of the surrounding human populations.
Assessor: World Conservation Monitoring Centre
Refs: 9078

Rhododendron protistum var. giganteum
Ericaceae
CR C2b
China (Yunnan)
Fewer than 100 trees are thought to exist in an area of submontane evergreen broadleaved forest in Gaoligongshan in south-west Yunnan. This population was rediscovered in 1981, 62 years after its first collection. The area has been designated as a nature reserve and the species is in cultivated as an ornamental.
Assessor: Sun, W.
Refs: 1818, 11847, 19055

Rhododendron rex
Ericaceae
LR/nt
China (Sichuan, Yunnan). India (Arunachal Pradesh), Myanmar
A relatively widely occurring species in the wild and a famous ornamental in cultivation. The status of the population in China is believed to be endangered because of its restriction to small areas of subalpine evergreen forest, where fires and cutting have caused population declines in the past 10 years. A population is protected in Mount Wuliang Nature Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 1619, 1818, 11847, 19055

Rhododendron subansiriense
Ericaceae
VU D2
India (Arunachal Pradesh)
This species is known only from the type specimen, which was gathered from mossy forest above 2600m.
Assessor: World Conservation Monitoring Centre
Refs: 1619

Rhododendron wattii
Ericaceae
VU D2
India (Manipur)
A species known only from the type locality.
Assessor: World Conservation Monitoring Centre
Refs: 1619

Rhododendron wilhelminae
Ericaceae
CR D1
Indonesia (Java)
This species has been found only once at 1350m near the crater on Mount Salak. It may be a natural hybrid of R. javanicum and R. malayanum.
Assessor: World Conservation Monitoring Centre
Refs: 9078

Rhodognaphalon breviscpuce
Bombacaceae
VU A1cd
Cameroon, Congo, Côte d’Ivoire, Democratic Republic of Congo, Gabon, Ghana, Nigeria, Sierra Leone
A timber species of West and Central Africa. It occurs in various forest types, particularly secondary forest. Exploitation is moderate. Little is known about regeneration but it does not appear to be abundant and growth rates are slow.
Assessor: Hawthorne, W.
Refs: 2362, 6127, 6718, 11504, 12061, 17408

Rhodognaphalon mossambicense
Bombacaceae
DD
Mozambique
Assessor: Bandeira, S.
Refs: 5117

Rhoeiptelea chilanthra
Rhoeipteleaceae
VU B1+2c
China (Guangxi, Guizhou, Yunnan), Viet Nam
Occurring as a canopy tree in montane forest, the species is largely confined to southern China, with restricted populations in Lao Cai and Yen Bai just over the border into northern Viet Nam. Trees generally occur singly or in small groups. The species is a dominant element
where recolonisation is taking place after forest clearance. The family is monotypic.

Assessor: World Conservation Monitoring Centre

Ref: 848, 1818, 11530, 11847, 15357, 19055, 19061

**Rhopaloblaste augusta**
Palmae

India (Andaman and Nicobar Is. - Nicobar Is.)
A palm tree of lowland forest in the moist hill valleys and slopes of Nicobar Island.

Assessor: Johnson, D.

Ref: 19118

**Rhopaloblaste elegans**
Palmae

Solomon Islands (South Solomon)
A primary forest palm tree found in the moist lowlands of the Solomon Islands.

Assessor: Dowl, J.L.

Ref: 19118

**Rhopaloblaste singaporenensis**
Palmae

Malaysia (Peninsular Malaysia), Singapore
Scattered in lowland rainforest, this species is common in south Peninsular Malaysia and in the remnant forests of Singapore. Healthy populations exist in protected areas. Outside the parks, populations are subject to forestry activities and are becoming locally extinct.

Assessor: Saw, L.G.

Ref: 19118

**Rhopalostylis baueri var. baueri**
Palmae

Norfolk Island
This variety is now largely confined to rainforest in the national park on Norfolk Island. The Norfolk Island Group is a World Heritage Site. The species is widely cultivated and traded as an ornamental.

Assessor: Johnson, D.

Ref: 19118

**Rhopalostylis baueri var. cheesemanii**
Palmae

New Zealand (Kermadec Is.)
This variety is abundant in rainforest on Raoul Island of the Kermadec Group. Raoul Island is a nature reserve. The species is widely cultivated and traded.

Assessor: Johnson, D.

Ref: 19118

**Rhopalostylis sapida**
Palmae

New Zealand
An ornamental palm tree found in lowland moist forest up to 400m.

Assessor: Dowl, J.L.

Ref: 19118

**Rhus aucheri**
Anacardiaceae

Oman
An Omani endemic which occurs commonly on rocky slopes and in wadis in the foothills of the Hajar Mountains in the north.

Assessor: Ghazanfar, S.A.

Ref: 16380

**Rhus brenanii**
Anacardiaceae

Tanzania
A scendent shrub or a small tree known only from moist montane forests in the Mbeya range and the nearby Mount Rungwe. The forests are categorised as catchment forest reserves but fire is causing a decline in their extent in the Mbeya range.

Assessor: Lovett, J. & G.P. Clarke

Ref: 3356, 19061

**Rhus delavayi**
Anacardiaceae

China (Sichuan, Yunnan)
Ranging throughout much of Yunnan and into Sichuan, the species is found in areas of monsoon forest between 1100 and 2500m. The oil from the seeds is used in cooking and soap-making. Seeds are collected in some quantity for this purpose. Habitat declines are also extensive but most of the species' range is now contained within nature reserves.

Assessor: Sun, W.

Ref: 19055

**Rhus glutinosa ssp. abyssinica**
Anacardiaceae

Djibouti, Egypt, Eritrea, Ethiopia, Sudan
Scattered populations occur in evergreen bushland on the Gebel Elba in Sudan and Egypt, from the Tigray region northwards through Eritrea and possibly into Saudi Arabia. There is some intergrading with the other subspecies to the south.

Assessor: World Conservation Monitoring Centre

Ref: 1330, 2361

**Rhus thrysiflora**
Anacardiaceae

Yemen (Socotra)
A fairly common tree, found in areas of submontane woodland. It is under no immediate threat.

Assessor: Miller, A.G.

Ref: 2354, 19083

**Rhynchosocalyx lawsonioides**
Rhyndocalycaceae

South Africa (Eastern Cape, KwaZulu-Natal)
A monotypic genus in a monotypic family endemic to Pondoland in southern KwaZulu-Natal and the eastern Transkei area of the Eastern Cape, where it is found on forest margins and along streams and rivers. It is locally common in places, although there is poor regeneration at some sites. There are subpopulations in a number of publicly owned protected areas in the region, including many of the demarcated forest areas in Transkei, which are no longer strictly protected. Habitat destruction through cutting for firewood and timber and increasing settlement could pose a problem here and in southern KwaZulu-Natal, where there is also concern over encroaching agriculture.


Ref: 689, 17410, 19218

**Rhytidophyllum grande var. grande**
Gesneriaceae

Jamaica
The type variety of a Jamaican endemic, locally
common in clearings and glades in forest or sheltered thickets on lime stone.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

Rhytidophyllum grande var. laevigatum  
Gesneriaceae  
VU B1+2c  
Jamaica  
One of two varieties of a Jamaican endemic. It has a local distribution in St James and Trelawny, occurring in thickets and on open banks on rocky limestone.  
Assessor: World Conservation Monitoring Centre  
Refs: 401, 5653, 17743

Ricinodendron heudelotii var. tomentellum  
Euphorbiaceae  
VU B1+2b  
Kenya, Tanzania  
A taxon of dry coastal forest distributed in the Shimba Hills, Rabai and Dzombo in south-east Kenya and parts of eastern Tanzania. It has suffered from habitat degradation in much of its range.  
Assessor: Lovett, J. & G.P. Clarke  
Refs: 3556, 10961

Rinorea antioquiensis  
Violaceae  
EN B1+2c  
Colombia  
Although recorded as locally common, this small tree is still known only from its type location in lowland forests in Nechí.  
Assessor: Calderon, E.  
Refs: 7980, 16331, 19069

Rinorea bicornuta  
Violaceae  
EN B1+2c  
Brazil (Amazonas)  
A tree which is known only from the type collection made in 1927 near Tefé on a forested river bank.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 16331

Rinorea brachythrix  
Violaceae  
VU B1+2c  
Panama  
A small tree, collected only from San Blás and Darién in various seasonal and non-seasonal lowland forest types.  
Assessor: World Conservation Monitoring Centre  
Refs: 7272, 7980, 16331

Rinorea convallarioides var. marsabitensis  
Violaceae  
VU D2  
Kenya  
A variety confined to submontane forest patches, which exist as islands surrounded by semi-desert vegetation, in Marsabit and Mathews. The habitat is not greatly threatened at present.  
Assessor: World Conservation Monitoring Centre  
Refs: 1308, 6396, 17859

Rinorea cordata  
Violaceae  
EN B1+2c  
Colombia  
A distinctive species which is known only from the type location in rainforest in the northern part of the valley of Río Magdalena in north-west Colombia.  
Assessor: Calderon, E.  
Refs: 7980, 16331, 19069

Rinorea crenata  
Violaceae  
LR/nt  
Costa Rica, Panama  
Confined to two forest refugia in Chiriquí and Darién in Panama and also apparently in Costa Rica, this species occurs over a wide altitudinal range, in the understorey of lowland forest and as an epiphyte in cloud forest.  
Assessor: World Conservation Monitoring Centre  
Refs: 5603, 7980, 14487, 16331

Rinorea deflexa  
Violaceae  
EN B1+2c  
Ecuador  
This small tree has not been collected anywhere other than the type locality in Chimborazo forest near Atacama.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 16331

Rinorea endotricha  
Violaceae  
LR/nt  
Guyana, Venezuela  
Although relatively widely ranging, this understorey species is confined to areas of primary forest in the lower Orinoco basin and adjacent areas in Guyana.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 16331

Rinorea haughtii  
Violaceae  
EN B1+2c  
Colombia  
This species occurs in lowland rainforest. It is probably endemic to north-west Colombia where it is known from three locations in Nechí and the valley of the Río Magdalena.  
Assessor: Calderon, E.  
Refs: 7980, 16331, 19069

Rinorea hirsuta  
Violaceae  
LR/nt  
Colombia, Panama  
An understorey species of lowland rainforest. It appears to be endemic to an area, exceeding 40,000km², in Chocó and adjacent forested areas in Panama, such as Nechí and Darién.  
Assessor: World Conservation Monitoring Centre  
Refs: 7980, 16331

Rinorea hymenosepala  
Violaceae  
EN B1+2c  
Colombia  
Closely related to the more widespread R. ulmifolia, this species is known from two locations: one in the northern forests of the Río Magdalena valley and the other near Sierra Nevada de Santa Marta.  
Assessor: Calderon, E.  
Refs: 7980, 16331, 19069

Rinorea keayi  
Violaceae  
LR/nt  
Cameroon, Nigeria  
The Nigerian population of this tree appears to be restricted to forested valleys on the Obudu Plateau, the northern division of Cross River National Park. Parts of the forest are showing signs of fire damage and there is growing pressure to convert areas into commercial plantations, especially for growing bananas. The species also appears to grow in dense populations in various...
forest types in Cameroon, on the central plateau as well as in the coastal forest.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 2773, 4977, 9133, 11504

**Rinorea laurifolia**

Violaceae EN B1+2c

Colombia

This tree species is known only from the type collection, which was made in 1936 in the valley of Río Magdalena.

**Assessor:** Calderon, E.

**Refs:** 7980, 16331, 19069

**Rinorea longistipulata**

Violaceae VU D2

Brazil (Acre)

Confined to non-flooded forest, this species has not been collected from anywhere other than its type locality.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 16331

**Rinorea marginata**

Violaceae CR B1+2c

Colombia

A species collected only from the river banks of the southern Río Magdalena valley.

**Assessor:** Calderon, E.

**Refs:** 7980, 16331, 19069

**Rinorea maximiliani**

Violaceae CR B1+2c

Brazil (Espírito Santo)

The type locality, to which the species appears to be confined, was discovered nearly 200 years ago in an area of coastal rainforest of Espírito Santo.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 16331

**Rinorea oraria**

Violaceae VU D2

Venezuela

A species which appears to be confined to its type location on the slopes of the Coastal Cordillera in Venezuela, between 700 and 800m.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 16331

**Rinorea pectino-squamata**

Violaceae VU D2

French Guiana

This species is known only from the 1982 type collection, located along a road in northern French Guiana.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 16331

**Rinorea ramiziana**

Violaceae VU A1c, B1+2c

Brazil (Espírito Santo, Rio de Janeiro)

Confined to coastal forest refuges and savanna forest, the species is known only from the north of Rio de Janeiro and Alegre.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 16331

**Rinorea squamata**

Violaceae LR/nt

Costa Rica, Honduras, Nicaragua, Panama

Well collected and apparently relatively abundant, this understorey species occurs in primary or disturbed lowland to submontane rainforest between south-east Nicaragua and Panama. It is also found in forest/pasture margins.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 9076, 13995, 14487, 16331

**Rinorea thomensis**

Violaceae VU D2

São Tomé & Príncipe (São Tomé)

A species known from single collections made in the last century from Saudade, Santa Ana, Batepa and S. Carlos and from a more recent collection from Santarém. Most of the original forest below 1500m was cleared in the first half of the century.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 2724, 10080

**Rinorea ulmifolia**

Violaceae VU B1+2c

Colombia

A species which, although endemic to north-west Colombia, is relatively well collected in the Río Magdalena valley from Bogotá to Sierra Nevada de Santa Marta.

**Assessor:** Calderon, E.

**Refs:** 7980, 16331, 19069

**Rinorea uxpanapana**

Violaceae VU D2

Mexico (Veracruz)

An isolated and distinctive species of *Rinorea*, growing in seasonal forest on karst limestone. It is known only from the type collection of 1982, taken from Uxpanapa. Although there has been much deforestation, the areas on karst are generally unattractive to cultivate or log. The species appears to be more closely related to paleotropical members of the genus.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 5603, 5651, 7980, 8283, 16331

**Rinorea villosiflora**

Violaceae EN B1+2c

Brazil (Maranhão)

Apparently confined to the type locality along a road in the estate of Santa Maria, this species occurs in non-flooded forest.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 7980, 16331

**Robinsonella brevituba**

Malvaceae VU A1c

Mexico (Oaxaca, Veracruz)

A species of high precipitation rainforest, occurring in the Tuxtpec and Uxpanapa-Chimalapa regions.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 5651, 5993

**Robinsonella mirandae**

Malvaceae VU A1c, B1+2c

Mexico

Endemic to the Gulf region, this canopy tree is restricted to remaining areas of rainforest.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 5993, 14293
Species Summaries

Robinsonella samaricarpa
Malvaceae VU A1c
Mexico (Oaxaca, Veracruz)
A large tree of high precipitation rainforest, occurring largely in the Uxpanapa-Chimalapa region.
Assessor: World Conservation Monitoring Centre
Refs: 5993

Robynsia glabrata
Rubiaceae VU A1c
Côte d'Ivoire, Ghana, Nigeria
A species which is uncommon and located in the severely degraded dry forests of southern Côte d'Ivoire, Ghana and Nigeria. These areas are vulnerable to the effects of population growth and associated activities.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Rochefortia acrantha
Boraginaceae VU B1+2c
Jamaica
A small tree or shrub, which is restricted to areas of woodland on rocky limestone in Trelawny and Westmoreland.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Rollinia amazonica
Annonaceae VU D2
Colombia
This is a rare species restricted to low altitudes in Trapézio Amazonico.
Assessor: World Conservation Monitoring Centre
Refs: 2228, 6507, 6728, 7980

Rollinia andicola
Annonaceae LR/nt
Ecuador, Peru
Restricted to areas of montane forest, between 1200 and 1900m, the species has not been widely collected although it does have a relatively wide extent of occurrence (> 70,000 km²). An unusual species, it has been found on the north side of Tijuca National Park.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 7980

Rollinia bahiensis
Annonaceae VU B1+2c
Brazil (Bahia)
Confined to lowland coastal forests, this small tree is threatened with the loss of its habitat. It extends probably just over 20,000 km². A small tree to a maximum of 2m. It is very rare and restricted to forests around the city of Rio de Janeiro, where increasing urbanization places it under serious threat. It has been found on the north side of Tijuca National Park.
Assessor: World Conservation Monitoring Centre
Refs: 2228, 3912, 6728, 7980

Rollinia boliviana
Annonaceae EN B1+2c
Bolivia
This species has only once been collected, in 1939 in Larecaya, La Paz.
Assessor: World Conservation Monitoring Centre
Refs: 2228, 6728, 7980, 17460

Rollinia calcicola
Annonaceae EN B1+2c
Brazil (Acre)
This is an unusual species, which is known only from the type collection made in 1933 at the mouth of Rio Macauhan.
Assessor: World Conservation Monitoring Centre
Refs: 4624, 6728, 7980

Rollinia centrantha
Annonaceae DD
Ecuador, Peru?
The species is known from two disjunct locations in the Amazon. The range may be found to be more extensive after further collections have been fully determined. The flower structure is the only feature that distinguishes this species from R. cuspidata.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 7980

Rollinia chrysocarpa
Annonaceae VU D2
Ecuador? (Ecuador?), Peru
A distinctive species, known only from the type collection, within a 50m altitudinal belt in the Peruvian Amazon. Similar, but undetermined, specimens occur in Napo, in Ecuador.
Assessor: World Conservation Monitoring Centre
Refs: 349, 6728, 7980

Rollinia ecuadorensis
Annonaceae VU B1+2c
Ecuador
A tree species with a range covering less than 20,000 km², confined to lowland rainforest in Napo. It is found in the Jatun Sacha Biological Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 2228, 6728, 7980, 18190

Rollinia ferruginea
Annonaceae EN A1c+2c, B1+2c
Brazil (Rio de Janeiro)
This species grows to a maximum of 2m. It is very rare and restricted to forests around the city of Rio de Janeiro, where increasing urbanisation places it under serious threat. It has been found on the north side of Tijuca National Park.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 6767, 7980

Rollinia heliosioides
Annonaceae CR B1+2e, C1, D1
Brazil, Ecuador
Current information states that this species is reduced to a single tree in Jatun Sacha Biological Reserve, Ecuador. However, previous information suggests it may also be found in Brazil.
Assessor: Buitrón, X. et al.
Refs: 2228, 6728, 6767, 7980, 19195

Rollinia herzogii
Annonaceae LR/nt
Bolivia, Peru
This tree or shrub is recorded in forest and savanna areas in two disjunct locations in Peru, including Tambopata Wildlife Reserve, and in Bolivia.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 7980

Rollinia hispida
Annonaceae VU B1+2c
Ecuador, Peru
A small tree confined to an area possibly less than
The World List of Threatened Trees

20,000km² in the Amazon of Peru and Ecuador. It occurs in Iparfa National Forest.
Assessor: World Conservation Monitoring Centre
Refs: 349, 6728, 7980

Rollinia occidentalis
Annonaceae VU B1+2c
Argentina, Bolivia
The species appears to be endemic to the piedmont forest of north-west Argentina and Bolivia, an unprotected ecosystem which is rapidly being replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122

Rollinia pachyantha
Annonaceae EN B1+2c
Colombia
The species is confined to lowland rainforest in Valle. The site of a 1985 collection coincides with the proposed route for a road to a military base.
Assessor: Calderon, E.
Refs: 6728, 7980, 19069

Rollinia parriflora
Annonaceae LR/nt
Brazil (Rio de Janeiro)
A shrub or tree from forest in Rio de Janeiro. It is known from several locations and is not uncommon.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 7980

Rollinia pickelli
Annonaceae VU B1+2c
Brazil (Paraiba, Pernambuco)
This small tree is restricted to a fairly small area (< 20,000km²) in the highly threatened *restinga* vegetation on the coast of Paraiba and Pernambuco States.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 7980, 14516

Rollinia reflexa
Annonaceae DD
Colombia
This species is known only from a small area along Río Magdalena north-west of Bogotá.
Assessor: World Conservation Monitoring Centre
Refs: 2228, 6728, 7980, 14516

Rollinia utabatensis
Annonaceae LR/nt
Brazil (São Paulo)
A forest tree, endemic to Ubatuba. It may extend over an area greater than 20,000 km² but there is evidence that it is threatened.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 6767, 7980

Rollinia velutina
Annonaceae LR/nt
Colombia, Venezuela
Fairy wide-ranging, the species is found in low-altitude forests in Boyacá to Barinas.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 7980

Rollinia xylopifolia
Annonaceae LR/nt
Brazil (Espírito Santo, Rio de Janeiro, São Paulo)
A small forest tree or shrub, which ranges over an area greater than 40,000km². It is also found on the margin of *campo cerrado*.
Assessor: World Conservation Monitoring Centre
Refs: 6728, 7980

Romeroa verticillata
Bignoniaceae VU B1+2c
Colombia
A monotypic genus, confined to Magdalena Valley in Boyacá and Santander.
Assessor: Calderon, E.
Refs: 7980, 19069

Rondeletia adamsii
Rubiaeae VU B1+2c
Jamaica
An endemic to the Cockpit Country, occurring on rocky limestone in Clarendon and Trelawny.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085

Rondeletia amplexicaulis
Rubiaeae EN B1+2c
Jamaica
Found in open glades or woodland on clay banks, the species is restricted to Trelawny.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Rondeletia brachyphylla
Rubiaeae EN B1+2c
Jamaica
Occurring in small numbers on rocky serpentine hillsides, the species is confined to the southern John Crow Mountains between 750 and 900m.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980, 17743

Rondeletia cinclia
Rubiaeae CR C2a
Jamaica
There appear to be only a few individuals, confined to the summits of Dolphin Head and Bubby Hill. There is evidence of selective logging and some hurricane damage.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Rondeletia clarendonensis
Rubiaeae EN B1+2c
Jamaica
A rare small tree or shrub of exposed craggy sites on limestone. It is recorded only from the parishes of Clarendon and St Ann. 
Assessor: Kelly, D.L.
Refs: 5653, 19085

Rondeletia dolphinensis
Rubiaeae EN B1+2c
Jamaica
A species known only from the summit slopes of Dolphin Head, where it occurs locally in moist forest on limestone between 450 and 500m.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 19085
Species Summaries

**Rondeletia elegans**
Rubiaceae  
Jamaica  
An uncommon tree or shrub, restricted to moist secondary forest on limestone hills in Portland and St Thomas between 360 and 680m. It resembles *R. pallida*, an equally rare species, and may not be worthy of taxonomic distinction. The habitat, especially in St Thomas, has been almost completely destroyed or severely degraded.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980, 19116

**Rondeletia galeottii**
Rubiaceae  
Mexico (Oaxaca, Veracruz)  
A species of high precipitation rainforest, occurring in the regions of Los Tuxtlas and Uxpanapa-Chimalapa.  
Assessor: World Conservation Monitoring Centre  
Refs: 5993

**Rondeletia glauca**
Rubiaceae  
Jamaica  
A scrambling shrub or tree, the species has a local distribution in woodland on sheltered limestone banks in St Catherine, Trelawny and St Ann.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

**Rondeletia harrisi**
Rubiaceae  
Jamaica  
A small uncommon tree or shrub, restricted to Hanover, Trelawny and St Ann, where it occurs in woodland on limestone.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980

**Rondeletia hirta**
Rubiaceae  
Jamaica  
A small shrub or tree known only from Portland and St Thomas, where it occurs between 120 and 550m in lowland forested ravines. In the more accessible places forest areas are almost completely destroyed or severely degraded.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980, 19116

**Rondeletia hirta**
Rubiaceae  
Jamaica  
A small tree or shrub which is locally frequent in St Andrew and St Thomas in thickets and woodland on steep rocky slopes between 240 and 900m. Most of the accessible areas of forest have been destroyed.  
Assessor: Bellingham, P.  
Refs: 6057, 7980, 19116

**Rondeletia pallida**
Rubiaceae  
Jamaica  
Uncommon and confined to Portland and St Thomas, the species occurs up to 600m in woodland on limestone, especially where it is wet. Most, if not all, of the forest, especially in the latter parish, has been destroyed or severely degraded.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980, 19116

**Rondeletia peruviana**
Rubiaceae  
Peru  
A species which is recorded only from the type collection taken from Amazon forest in the department of Loreto.  
Assessor: World Conservation Monitoring Centre  
Refs: 1984

**Rondeletia portlandensis**
Rubiaceae  
Jamaica  
Recorded only from Portland, the species occurs in damp thickets and mossy forest on limestone. It has recently been found above Ecclesdown.  
Assessor: Kelly, D.L.  
Refs: 401, 5653, 7980, 19085

**Rondeletia racemosa**
Rubiaceae  
Jamaica  
A tree of submontane forest in Portland, St Andrew and St Thomas. Almost all the accessible forest below 1400m in the latter two parishes has been destroyed or severely degraded.  
Assessor: World Conservation Monitoring Centre  
Refs: 6057, 7980, 19116

**Rondeletia subsessitifolia**
Rubiaceae  
Jamaica  
Known only from Portland Parish, the species has a very local distribution, confined to mossy thickets in wet areas on limestone. There is also a putative specimen in the forest above Ecclesdown.  
Assessor: Kelly, D.L.  
Refs: 401, 5653, 7980, 19085

**Roscheria melanochaetes**
Palmaceae  
Seychelles  
LR/nt  
A common palm tree found in moist forest on steep hillsides and slopes. Populations are restricted to Mahé, Praslin and Silhouette Islands. It regenerates well.  
Assessor: Murugaiyan, P.  
Refs: 19118

**Rosselia bracteata**
Burseraceae  
Papua New Guinea  
VR B1+2c  
A newly described genus, endemic to Rossel Island in the Louisiade Archipelago. The area was thickly forested a century ago.  
Assessor: World Conservation Monitoring Centre  
Refs: 476

**Rothmannia annae**
Rubiaceae  
Seychelles  
VR A1a, D1+2  
The only wild populations remaining are confined to the Aride Islands. Populations on Mahé, Silhouette, Praslin and Felicite Islands became extinct in the early part of the century. A count has been made of 922 mature plants which appear to be healthy and regenerating, although
recent declines in numbers are thought to have been caused by shading from other species. Past declines on other islands are probably attributable to widespread forest clearance. Parasitism by the mealy bug (Icerya seychellarum), although often stated as a contributing factor, has little effect on the health and reproductive capacity of individuals. An island is a Special Reserve.

*Assessor:* Nature Protection Trust of Seychelles  
*Refs:* 10610, 11417, 17229, 19025, 19062

**Roystonea princeps**

Palmae  
Jamaica  
An early pioneer which occurs in wetland areas below 10m in the Great Morass region of western Jamaica. Two main populations exist, covering an area of less than 400km². The total population size is unknown but estimated at between 5000 and 10,000 individuals. Increasing settlement and the decline in soil water content are the main threats.

*Assessor:* Zona, S.  
*Refs:* 19118

**Roystonea regia var. hondurensis**

Palmae  
Honduras  
This variety appears to be endemic to Honduras and confined to a small area of humid forest in the Atlantic lowlands. The timber is exploited for construction work.

*Assessor:* Nelson, C.  
*Refs:* 7645, 13995

**Roystonea stellata**

Palmae  
Cuba  
Confined to Yagruma Terrace in the Maisí region of Cuba, this palm tree occurs in lowland open forest. For the last four decades, its preferred habitat has been converted to coffee plantations. No trees were found in 1990 during a search of the area.

*Assessor:* Zona, S.  
*Refs:* 19118

**Raugea microphylla**

Meliaceae  
Ecuador  
This endemic tree of the Ecuadorian High Andes inhabits cloud forest between 2200m and 2650m in Loja Province.

*Assessor:* World Conservation Monitoring Centre  
*Refs:* 19119, 19120

**Raugea ovalis**

Meliaceae  
Bolivia  
A rarely collected species confined to the eastern slopes of the Andes in Bolivia.

*Assessor:* World Conservation Monitoring Centre  
*Refs:* 7980, 12281

**Rudgea microcarpa**

Rubiaceae  
Peru  
Known only from the type collection, the species occurs in submontane forest in the department of Huánuco.

*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Rudgea obesiflora**

Rubiaeace  
Peru  
Known only from the type collection, this lowland forest

lands between 350 and 420m. This species is difficult to distinguish from the common *R. regia*.  
*Assessor:* Zona, S.  
*Refs:* 19120
species was collected from the Amazon in Loreto.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Rudisia stenophylla**  
Rubiaceae  
VU  
Peru  
Known only from the type collection, the species occurs in lowland forest in the department of San Martin.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1984

**Ruellia insignis**  
Acanthaceae  
VU  
Yemen (Socotra)  
A small tree or shrub which is scattered, occasionally common, in areas of moist submontane woodland. There are no immediate threats.  
*Assessor:* Miller, A.G.  
*Refs:* 19083

**Ruprechtia apetala**  
Polygonaceae  
LR/nt  
Argentina (Catamarca, Córdoba, Jujuy, La Rioja, Salta, San Luis, Santiago del Estero, Tucumán), Bolivia  
A species of scrubland and woodland. Although occurring widely, it is found in areas which are heavily degraded and overgrazed by goats, sheep and cattle. It is unknown whether the species is regenerating.  
*Assessor:* World Conservation Monitoring Centre  
*Refs:* 1262, 5112, 19170

**Ryania speciosa var. mutisii**  
Flacourtiae  
EX  
Colombia  
A Colombian form of a widespread South American species. It is believed to have occurred in Tolima and/or Cundinamarca.  
*Assessor:* Calderon, E.  
*Refs:* 7980, 19069

**Ryparosa fasciculata**  
Flacourtiae  
VU  
Malaysia (Peninsular Malaysia)  
A small tree of Malacca and Pahang, inhabiting lowland secondary forest up to 300m.  
*Assessor:* Chua, L.S.L.  
*Refs:* 8464, 19073

**Ryparosa scortechinii**  
Flacourtiae  
LR/ed  
Malaysia (Peninsular Malaysia), Singapore  
Inhabiting rainforest up to 900m, this small tree ranges from Penang and Kelantan southwards. Part of the range is contained within Taman Negara National Park.  
*Assessor:* Chua, L.S.L.  
*Refs:* 8464, 9159, 17140, 19073

**Rytigynia adenodonta var. adenodonta**  
Rubieae  
VU  
Malawi, Tanzania, Zambia  
The higher altitude variant of the species. Populations are known from the Nyika Plateau within Malawi and Zambia and further north in parts of Tanzania, where there is dry montane forest.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 1308, 3356, 8814

**Rytigynia adenodonta var. reticulata**  
Rubieae  
VU  
Malawi, Tanzania, Zambia  
This variant, as with the type variety, occurs in dry montane forest in the Nyika Plateau and parts of Tanzania. It is restricted to lower altitudes, from 1800 to 1950m.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 1308, 3356, 8814

**Rytigynia binata**  
Rubieae  
VU  
Tanzania  
A dry coastal species endemic to east and south-east Tanzania.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 3356, 8814

**Rytigynia bugoensis ssp. glabriflora**  
Rubieae  
VU  
Tanzania  
A shrub or small tree confined to areas of moist montane forest in four localities, including Ukaguru, Rungwe and Songea in Tanzania.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 1308, 3356, 8814

**Rytigynia caudatissima**  
Rubieae  
VU  
Tanzania  
An endemic of the Udzungwa Mountains, restricted to an area of moist montane forest at Sanje.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 3356, 10961

**Rytigynia celastroides var. nudoides**  
Rubieae  
VU  
Tanzania  
A variety confined to dry coastal forest areas in east and south-east Tanzania and on Zanzibar Island.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 3356, 8814

**Rytigynia eickii**  
Rubieae  
VU  
Kenya, Tanzania  
A shrub or small tree ranging from the forest fringes and rocky bushland in the Taita Hills to areas of moist forest at medium elevation in eastern Tanzania.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 3356, 6396, 8814

**Rytigynia hirsutiflora**  
Rubieae  
VU  
Tanzania  
An endemic of the North Udzungwa Mountains, the species is known from areas of moist montane forest at Sanje and Udekwa.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 3356, 8814

**Rytigynia induta**  
Rubieae  
VU  
Kenya, Tanzania  
A shrub or small tree confined to a few areas of forest or thicket in Kenya and to dry montane forest in Loliondo and Ufiomi in Tanzania.  
*Assessor:* Lovett, J. & G.P. Clarke  
*Refs:* 3356, 6396, 12067

Species Summaries

485
**Rytigynia lichenoxenos** ssp. **glabrituba**
Rubiacaea  
Tanzania  
One of the subspecies of a Tanzanian endemic. It is found in moist montane forest at Mufindi in the Udzungwa Mountains and at Nditima along the upper Rubudje River.  
**Assessor:** Lovett, J. & G. P. Clarke  
**Refs:** 3356, 8814

**Rytigynia lichenoxenos** ssp. **lichenoxenos**  
Rubiacaea  
Tanzania  
Endemic to the South Uluguru Mountains, this subspecies is restricted to high-altitude moist evergreen forest.  
**Assessor:** Lovett, J. & G. P. Clarke  
**Refs:** 3356, 8814

**Rytigynia longipedicellata**  
Rubiacaea  
Tanzania  
A species which appears now to be confined to the remaining areas of undisturbed coastal forest in the Rondo Forest Reserve (140km²). The forest has been severely disturbed by logging, shifting cultivation, wood collection and plantation establishment in the past. The presence of forest management staff activities is helping to discourage local exploitation.  
**Assessor:** Lovett, J. & G. P. Clarke  
**Refs:** 3356, 16796

**Rytigynia nodulosa**  
Rubiacaea  
Tanzania  
An endemic of the cloud forests in the North Uluguru Mountains.  
**Assessor:** Lovett, J. & G. P. Clarke  
**Refs:** 3356, 8814

**Rytigynia pseudolongicaudata**  
Rubiacaea  
Tanzania  
A shrub or small tree occurring in moist montane forest areas in the Ukaguru Mountains, South Uluguru Mountains and at Mwanihana in the Udzungwa Mountains.  
**Assessor:** Lovett, J. & G. P. Clarke  
**Refs:** 3356, 8814

**Sabal bermudana**  
Palmeae  
Bermuda  
An endemic species confined to the few remaining patches of lowland dry or marshy scrub. The largest population is in Paget Marsh. This ornamental palm tree is widely cultivated and traded internationally. Natural stands are protected under the Tree Preservation Orders and the Woodland Preservation Orders.  
**Assessor:** Johnson, D.  
**Refs:** 19118

**Sabal gretheriae**  
Palmeae  
Mexico (Yucatán)  
A palm confined to the Yucatán Peninsula, inhabiting open disturbed herbaceous vegetation on sandy soils at low elevations. It is used locally as a source of timber, food, fibre and thatching.  
**Assessor:** Quero, H.J.  
**Refs:** 19118

**Sabal pumus**  
Palmeae  
Mexico  
An endemic palm of Mexico confined to the Balsas Valley, where it is found on sandy soils in the transition zone between tropical deciduous forest and oak forest. Increasing agriculture is causing habitat loss.  
**Assessor:** Quero, H.J.  
**Refs:** 19118

**Sabal uresana**  
Palmeae  
Mexico  
An endemic palm of Mexico, confined to the Sierra Madre Occidental, where it is scattered in thorn forest and oak forest along watercourses.  
**Assessor:** Quero, H.J.  
**Refs:** 19118

**Saccopetalum prolificum**  
Anonaceae  
China (Guangdong - Hainan)  
An endemic of Hainan Island, confined to remaining areas of semi-deciduous monsoon and rainforest in valleys below 500m. The species can occur commonly and regenerates well, but it is cut for its timber and has experienced rapid rates of decline in its habitat because of logging and the increase in the amount of land coming under cultivation.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

**Sageraea grandiflora**  
Anonaceae  
India (Kerala)  
For a long time the species was known only from collections taken in the 19th century from Konni forest in Quilon District, a large part of which has been logged and replaced with commercial crops. The species now appears to be sparsely distributed in a few additional localities of lowland forest in the area.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2538, 19144

**Sageraea laurifolia**  
Anonaceae  
India (Karnataka, Kerala, Tamil Nadu)  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Sageraea thwaitesi**  
Anonaceae  
Sri Lanka  
A rare species found in wet and dry forest. During the extensive surveys conducted for the National Conservation Review, populations were found in single localities in Ratnapura District and Anuradapura District.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195, 19112
Species Summaries

Sakoanala madagascarensis
Leguminosae EN B1+2abc
Madagascar
A coastal, evergreen forest species confined to only four known localities, all in fragments of very restricted (200km² *AOO*) and continually decreasing forest in eastern coastal Madagascar, near Toamasina. Trees are selectively felled for construction timber.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Sakoanala villosa ssp. menabeensis
Leguminosae VU B1+2abc
Madagascar
A rare and poorly known woodland species confined to the coastal plains of western Madagascar, with a known distribution of 20,000 km² (*EOO*). Vegetation in the area is already very fragmented and declining.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Sakoanala villosa ssp. villosa
Leguminosae EN B1+2abc
Madagascar
A rare deciduous woodland subspecies confined to the Ankaran Massif and around Antsiranana at the northern tip of Madagascar, on limestone. Covering an estimated 250km² (*AOO*), most of the area is very fragmented and declining rapidly. The Ankaran population is protected within the Ankaran Reserve.
Assessor: Du Puy, D. & H. Labat
Refs: 12353

Salacia lehmbachii var. manus-lacertae
Celastraceae VU D2
Gabon
An endemic of the Belinga Mountains. The vegetation in some areas is degraded by agricultural encroachment. Several other restricted-range variants of this species exist because of the tendency for variable characteristics to stabilise when populations become isolated.
Assessor: World Conservation Monitoring Centre
Refs: 12323

Salacia lehmbachii var. pes-ranulae
Celastraceae VU B1+2c
Cameroon, Nigeria
This variety is localised in the remaining protected forests in the Oban Hills, extending into south-east d’Ébolowa in Cameroon. Forests outside these areas have been extensively felled and cleared for agriculture. Several restricted range variants of this species exist because of the tendency for variable characteristics to stabilise when populations become isolated.
Assessor: World Conservation Monitoring Centre
Refs: 4977, 12323

Salacia lehmbachii var. uregaensis
Celastraceae VU D2
Democratic Republic of Congo
This variety is known only from the type locality in the Forestier Central. Several other restricted-range variants of this species exist because of the tendency of variable characteristics to stabilise when populations become isolated.
Assessor: World Conservation Monitoring Centre
Refs: 12323

Salacia miegei
Celastraceae VU B1+2c
Côte d’Ivoire
Endemic to Côte d’Ivoire, this species appears to be scattered throughout the country but only in remnants of primary forest. Extensive logging in the country in the last three decades has caused the rapid decline of forest.
Assessor: Assi, A.
Refs: 12822

Salix floridana
Salicaceae VU B1+2c
USA (Florida, Georgia)
A small tree, confined to scattered sites from Pulaski and Early Counties in southern Georgia to Lake and northern Orange Counties in central peninsular Florida. It grows in very wet soils, usually in dense swampy woods, often at stream sides. About 12-15 sites are known, in some of which the species may now be extinct.
Assessor: World Conservation Monitoring Centre
Refs: 9254

Salix kusanoai
Salicaceae EN C2a
Taiwan
A shrub or small tree which occurs in two widely separated localities, one in the north-east and the other in the southern tip of Taiwan. Populations are small and isolated, occurring in wetland areas or at the side of rivers or ponds. A large part of the habitat has been converted into paddy fields, fishing ponds and houses. No protection or conservation measures are in place.
Assessor: Lu, S. Y. & F. J. Pan
Refs: 3295, 6469, 19050, 19053

Salix magnifica
Salicaceae VU A1cd
China (Sichuan)
Confined to scattered localities in western Sichuan, the species is found in montane broadleaved evergreen forest in valleys by streams. Individuals are apparently becoming scarcer in places because of the destruction of the habitat. Populations on Mount Wolong are undisturbed as this is one of the sites where the giant panda occurs.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Salix tarracoensis
Salicaceae CR B1+2c
Spain
A small shrubby tree, known from dispersed populations, generally consisting of between 10 and 40 individuals, within areas of sclerophyllous submontane scrub in the coastal cordillera between Castellón and Tarragona. The opening up of forestry roads has caused some habitat loss. Part of the range is protected within a national reserve.
Assessor: Vivero, J.L. et al.
Refs: 1512, 7222, 7741, 13560

Sambucus palmenis
Caprifoliaceae CR C2a
Spain (Canary Is.)
A dioecious species known from a few scattered individuals in cloud forest on the islands of Tenerife, Gomera, Gran Canaria and La Palma. It has a very poor regenerative capacity and the few remaining populations are threatened to a degree by fire, grazing and
overexplotation of the medicinal bark. The species is the focus of a rescue programme which is attempting to establish new populations. It is also listed in government legislation of 1991.

_assessor: Bañares, A. et al._
Refs: 8716, 10862, 16500, 19022

**Sambucus tigranii**
Caprifoliaceae  VU D2
Former USSR
A shrub reaching 3m in height, restricted to dry, stony slopes in the resort of Arzni, Mount Aragaz, and the Ervard Ravine, Armenia. It is a promising species for forestry.

_assessor: Firsov, G.A._
Refs: 19056

**Samyda glabrata**
Flacourtiaeae  VU B1+2c
Jamaica
There is little distinction between this species and _S. villosa_. Both are uncommon, small trees. This species is known from St Thomas and Portland, where it is restricted to thickets on limestone in wet areas between altitudes of 250 and 900m.

_assessor: World Conservation Monitoring Centre Refs: 6057, 7980

**Samyda villosa**
Flacourtiaeae  VU B1+2c
Jamaica
There is little distinction between this species and _S. glabrata_. It is uncommon and confined to pastures, thickets and woodland on limestone in Clarendon, Manchester and Trelawny.

_assessor: World Conservation Monitoring Centre Refs: 6057, 7980

**Sandoricum vidalii**
Meliaceae  VU A1cd
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.

_assessor: World Conservation Monitoring Centre Refs: 2072, 4919, 18088

**Santalum album**
Santalaceae  VU A1d
China, India (Karnataka, Tamil Nadu), Indonesia (Lesser Sunda Is.), Philippines
Sandalwood is a hemi-parasitic plant which is widely scattered in dry deciduous forests. Regeneration is mostly vegetative by wood suckers or coppicing and is very successful in places. Viable seeds are produced after five years and dispersed by birds. Fire, grazing and most importantly exploitation of the wood for fine furniture and carving and also oil are threatening the species. Export of the timber is banned from India but smuggling has assumed alarming proportions.

_assessor: Asian Regional Workshop Refs: 6426, 6431, 8483, 9328, 12937, 13285, 19075, 19076, 19077

**Santalum fernandezianum**
Santalaceae  EX
Chile (Juan Fernández Is)
Last seen in 1908, the species was cut to extinction for its aromatic wood.

_assessor: World Conservation Monitoring Centre Refs: 3241, 5651

**Santalum freycinetianum var. lanaiense**
Santalaceae  VU A1ce
USA (Hawaii)
A relatively common species with three morphologically overlapping varieties. This variant is known from Lanai and Maui, where it occurs in a unique dry forest type which has steadily declined under the influence of grazing deer and spreading alien plant species.

_assessor: World Conservation Monitoring Centre Refs: 3372

**Santalum haleakalae**
Santalaceae  VU D2
USA (Hawaii)
Known only from Haleakala on East Maui, this small tree is scattered in alpine shrubland on dry slopes up to 2700m, especially in fogswep areas.

_assessor: World Conservation Monitoring Centre Refs: 3372

**Santalum insulare var. hendersonensis**
Santalaceae  VU D2
Pitcairn Islands
A variety of a widespread Polynesian species endemic to Henderson Island. In the plateau forests it is a semi-decumbent tree, becoming more shrubby and scarcer in cliff and more open communities. The total population size is calculated to be between 2000 and 4000 plants. The regeneration potential of the taxon is likely to be affected by poor fruiting performance. It is also partially parasitic, which hampers the cultivation of the plant _ex situ_. Related taxa have been widely exterminated from their range through exploitation for the perfume and incense industry. Henderson Island is a World Heritage Site.

_assessor: Waldren, S.
Refs: 434, 8306, 13604

**Santalum insulare var. insulare**
Santalaceae  LR/nt
French Polynesia (Society Is.)
One of the numerous varieties of a variable species, found only on Tahiti.

_assessor: Florence, J.
Refs: 14513

**Santalum insulare var. marchionense**
Santalaceae  VU B1+2c
French Polynesia (Marquesas Is.)
One of the numerous varieties of a variable species. This taxon was once abundant in areas of humid forest and was the main source of wood for early European colonists. Overexploitation led to extensive deforestation and the reduction of the taxon to small remnants of its former population.

_assessor: Florence, J.
Refs: 434, 14513

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**Santalum insulare var. margaretae**
Santalaceae  
CR B1+2c  
French Polynesia (Tubuai Is.)  
One of the numerous varieties of a variable species. It is known from a small population at Tanga on Rapa Iti.  
Assessor: Florence, J.  
Refs: 434, 14513

**Santalum insulare var. raiatea**
Santalaceae  
LR/nt  
French Polynesia (Society Is.)  
One of the numerous varieties of a variable species. The main population occurs on Moorea. It is also known from Raiatea, where its status is critically endangered.  
Assessor: Florence, J.  
Refs: 14513

**Santalum insulare var. raivavae**
Santalaceae  
CR B1+2c  
French Polynesia (Tubuai Is.)  
One of the numerous varieties of a variable species. It occurs only on Raivavae in the Tubuai Group.  
Assessor: Florence, J.  
Refs: 14513

**Santalum macgregorii**
Santalaceae  
EN A1cd, C1  
Indonesia? (Irian Jaya?), Papua New Guinea  
A parasitic or semi-parasitic species found in open savanna vegetation and in savanna forest in gullies in the eastern part of Western Province and possibly also in south-east Irian Jaya. As with all other sources of sandalwood, this species is overexploited for its scented wood, which is used for incense, perfume, essential oil and carving. In Papua New Guinea the exploitation began at the turn of the last century; now the resource is greatly depleted as there are few mature trees or virgin stands.  
Assessor: Eddowes, P.J.  
Refs: 19114, 19147

**Santiria nigricans**
Burseraceae  
VU B1+2c  
Malaysia (Sarawak)  
Endemic to Sarawak, this tree is scattered in mixed dipterocarp forest up to 1600m. So far it is known only from Sungai Jelalong, Selampit, Balingian, Mulu National Park and Lambir National Park.  
Assessor: World Conservation Monitoring Centre  
Refs: 19017

**Santiria rubiginosa var. latipeirotata**
Burseraceae  
VU D2  
Malaysia (Sarawak)  
Endemic to Sarawak, this variety is known from only two collections from the Lambir National Park; it was found in mixed dipterocarp forest on ridges at 250m. Trees are cut for kedondong timber.  
Assessor: World Conservation Monitoring Centre  
Refs: 11145, 19017

**Santiria rubiginosa var. pedicellata**
Burseraceae  
EN A1c+2c  
Malaysia (Sarawak)  
This variety is common in the threatened swamp forests of Sarawak, a habitat type which has been licensed for timber extraction by the year 2000. The wood is cut for kedondong timber; small amounts of Santiria timber are exported to Japan.  
Assessor: World Conservation Monitoring Centre  
Refs: 10148, 11145, 19017

**Santiria sarawakana**
Burseraceae  
VU D2  
Malaysia (Sarawak)  
This uncommon tree of lowland forest up to 120m is endemic to Sarawak. It is known only from two collections, from the Miri and Sabel Forest Reserve.  
Assessor: World Conservation Monitoring Centre  
Refs: 19017

**Sapindus oahuensis**
Sapindaceae  
VU A1ce  
USA (Hawaii)  
The species is found in various forest types up to 610m in north-western Kauai and in the Wai'anae and Koolau Mountains on Oahu.  
Assessor: World Conservation Monitoring Centre  
Refs: 3372

**Sapium aubrevillei**
Euphorbiaceae  
VU A1c, B1+2c  
Côte d'Ivoire, Ghana  
Restricted to wet evergreen forest, this species is known from a few scattered populations, e.g. in Atewa and Subri Forest Reserves in Ghana. It is also recorded in Côte d'Ivoire. In both countries these habitats have suffered from the effects of mining, logging and commercial forestry activities, e.g. parts of Subri Forest Reserve have been deforested for industrial plantations.  
Assessor: Hawthorne, W.  
Refs: 6127, 8369, 12061

**Sapium bourgeaudi**
Euphorbiaceae  
VU A1c  
Mexico (Chiapas, Oaxaca, Tabasco, Veracruz)  
Endemic to the Gulf region, the species is restricted to
the remaining rainforests, ranging no further north than southern Veracruz.
Assessor: World Conservation Monitoring Centre
Refs: 5993

*Sapium harrissii*
Euphorbiaceae
Jamaica
A pioneer species of the Blue Mountains. It occurs in colonies in forest gaps and as sparsely scattered large trees in submontane forest, especially on steep unstable slopes.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980, 12564

*Sapium luzonicum*
Euphorbiaceae
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.
Assessor: World Conservation Monitoring Centre
Refs: 4919, 5651, 12937

*Sapium saltense*
Euphorbiaceae
Argentina, Bolivia
Thought to be endemic to the piedmont forest of northwest Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19112

*Sapium triloculare*
Euphorbiaceae
Kenya, Tanzania
A population has recently been found in remnant forest at Pangani Rocks, in Kenya. Otherwise the species is known only from remaining dry coastal forest in east and south-east Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 2074, 3356, 5204, 6396

*Saapranthus longepedunculatus*
Annonaceae
Panama
Apparently endemic to the Peninsula de Azuero in Panama, the species is known from the type collection, dated 1968 from Punta Blanca, Tonosi, and from a collection taken in 1997 from Cerro Hoya National Park, 5km away. The species appears to be very scarce, occurring in lowland semi-deciduous forest.
Assessor: Mitré, M.
Refs: 16772

*Saprosma fragrans*
Rubiaceae
India (Kerala, Tamil Nadu)
A shrubby tree, poorly collected and recorded from few scattered sites of low- to medium-elevation evergreen forest between Travancore, the Nilgiris and the northernmost part of Kerala.
Assessor: World Conservation Monitoring Centre
Refs: 19144

*Saprosma scabridum*
Rubiaceae
EN B1+2c
Sri Lanka
Known from four collections in total, this endemic species is restricted to the wet forests of south-west Sri Lanka; two collections were made last century. The two recent collections were found in forest reserves during the comprehensive surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 16943, 18796, 19112

*Saraca asoca*
Leguminosae
VU B1+2c
India, Sri Lanka
Occurring in the south and central Western Ghats and Sri Lanka, this small tree has become threatened in some parts of its range mainly through the loss of its habitat. No populations were found in Sri Lanka during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting the species is either extremely rare or possibly extinct. It is commonly cultivated and regarded as sacred. Medicinal extracts from the bark are commercially valuable and exported.
Assessor: CAMP Workshops on Medicinal Plants in India
Refs: 561, 18325, 19110, 19112

*Saraca celtibica*
Leguminosae
LR/nt
Indonesia (Sulawesi)
This species, endemic to Sulawesi, is known from only five collections; it is found near lowland streams.
Assessor: World Conservation Monitoring Centre
Refs: 4329, 19017

*Sarawakodendron filameniosum*
Celastraceae
VU D2
Malaysia (Sarawak)
A monotypic genus endemic to Sarawak. This small tree grows in mixed dipterocarp forest and *kerangas* forest. It is known only from Nyabau Forest Reserve, Bako National Park, Sri Aman and Bayai.
Assessor: World Conservation Monitoring Centre
Refs: 19017

*Saracaulus inflexus*
Sapotaceae
VU B1+2c
Brazil (Amazonas, Mato Grosso)
A tree of the central Brazilian Amazon, where it occurs in non-flooded forest. Logging activities are a threat to some populations.
Assessor: Pires O'Brien, J.
Refs: 1983, 7980, 8816

*Saracaulus oblatus*
Sapotaceae
LR/nt
Ecuador
A tree of the Ecuadorean Amazon. It occurs in submontane forest in Morona-Santiago and the north-east of Zamora.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816
Sarcotheca monophylla
Oxalidaceae
LR/nt
Malaysia (Peninsular Malaysia)
A tree scattered mainly in lowland secondary forest.
Threats include logging and urban encroachment.
Assessor: Chung, R.C.K.
Refs: 8464, 19073

Sarcotheca ochracea
Oxalidaceae
VU D2
Malaysia (Sarawak)
This small tree of mixed dipterocarp forest is uncommon
and confined to Miri, Bintulu and Tatam.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Sassafras randaiense
Lauraceae
VU A1ad
Taiwan
A relic species confined to mixed evergreen forest
above 1200m in the central and northern parts of the
main mountain range. Regeneration is rare and confined
to gaps in the forest. Germinating seeds are frequently
eaten by birds. There are two other members of the
genus, which occur in China and North America.
Assessor: Lu, S.Y. & F.J. Pan
Refs: 6469, 19050, 19051

Satakechia liukuensis
Palmae
DD
Japan (Ryukyu Is.)
A palm tree endemic to Ishigaki Island and Iriomote
Island in the southern Ryukys. A reserve has been set
up to protect the populations on Ishigaki Island.
Assessor: Johnson, D.
Refs: 19118

Satranala decussilae
Palmae
EN D1
Madagascar
Endemic to Manara Biosphere Reserve, the species
inhabits moist forest on shallow soils, overlying
ultramafic rock. A single population is known,
consisting of 30 trunked trees, 40 immature individuals
and many seedlings.
Assessor: Dransfield, J. & H.J. Beentje
Refs: 18986, 19118

Saurauia aquatoriensis
Actinidiaceae
LR/cd
Ecuador
A tree species which is endemic to the Ecuadorean High
Andes. It is confined to the area of the Sangay National
Park, where it is characteristic of dense cloud forest and
subAndean forest. The development of a road through
the park is a major threat to the integrity of these
protected habitats.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 19120

Saurauia bogoriiensis
Actinidiaceae
CR B1+2c
Indonesia (Java)
Endemic to west Java, the species is known only from a
1975 collection made in the Ciapus Gorge on Mount
Salak near Bogor city. More information is needed on its
present status.
Assessor: World Conservation Monitoring Centre
Refs: 9078
**Saurauia bracteosa**
Actinidiaceae  VU B1+2c
Indonesia (Bali, Java)
The species occurs throughout Java and also in Bali. Most of the forests in lowland areas have been cleared.
Assessor: World Conservation Monitoring Centre
Refs: 9078

**Saurauia cauliflora**
Actinidiaceae  VU B1+2c
Indonesia (Java)
This species is confined to west Java. Most lowland forest has been cleared and population pressure continues to be the greatest threat to remaining forested areas.
Assessor: World Conservation Monitoring Centre
Refs: 9078

**Saurauia lanceolata**
Actinidiaceae  VU B1+2c
Indonesia (Java)
This species is confined to west Java. Most lowland forest has been cleared and population pressure continues to be the greatest threat to remaining forested areas.
Assessor: World Conservation Monitoring Centre
Refs: 9078

**Saurauia latipetala**
Actinidiaceae  VU A1c
Guatemala, Mexico
A species of mesophyllous montane forest or cloud forest, occurring in the highlands of southern Mexico and Guatemala. The habitat has been considerably reduced by logging, increasing agriculture and ranching.
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 19161

**Saurauia mahmudii**
Actinidiaceae  LR/cd
Malaysia (Peninsular Malaysia)
This species is confined to open or closed rainforest at an altitude of 1500 to 1900m in the Cameron Highlands of Pahang. Populations are given a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Saurauia malayan a**
Actinidiaceae  LR/cd
Malaysia (Peninsular Malaysia)
Occurring in hill and submontane secondary forest of the Cameron Highlands, Pahang, the species receives a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 19073

**Saurauia microphylla**
Actinidiaceae  VU B1+2c
Indonesia (Java)
A species distributed throughout Java. Most forest in lowland areas has been cleared and population pressure continues to be the greatest threat to remaining forested areas.
Assessor: World Conservation Monitoring Centre
Refs: 9078

**Saurauia oreophila**
Actinidiaceae  VU A1c
Guatemala, Mexico
A species of mesophyllous montane forest, occurring in the highlands of Chiapas and Guatemala. The habitat has been considerably reduced by logging, increasing agriculture and ranching.
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 19161

**Saurauia rhenensis**
Actinidiaceae  LR/nt
Malaysia (Peninsular Malaysia)
Occurring in rainforest between 850 and 1400m, the species is found at Fraser’s Hill in the Genting Highlands, Pahang, and on Gunung Mandi Agin in Terengganu. Part of the range is contained within Taman Negara National Park.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

**Saurauia seibertii**
Actinidiaceae  EN C2a
Panama
Occurring in cloud forest between 1000 and 2100+ m, the species is distributed in the high mountains of Chiriquí and Bocas del Toro. Only a few collections exist, taken from a very restricted but perhaps insufficiently explored area. Regeneration is observed to be poor. A population exists within Volcán Barú National Park.
Assessor: Mitré, M.
Refs: 7272, 16772

**Saurauia serrata**
Actinidiaceae  EN B1+2c
Mexico
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 10079, 12985, 19203

**Saurauia villosa**
Actinidiaceae  VU B1+2c
Mexico
Assessor: Ramirez-Marcial, N. & M. González-Espinosa
Refs: 14932, 19203

**Sauropus assimilis**
Euphorbiaceae  CR B1+2c
Sri Lanka
A tree occurring in lowland wet evergreen forest in south-west Sri Lanka. The species was previously found in a single site within the Sinharaja Biosphere Reserve. However, it was not found again the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting the species is either extremely rare or possibly extinct.
Assessor: World Conservation Monitoring Centre
Refs: 8203, 17195, 18796, 19112

**Sauropus elegantissimus**
Euphorbiaceae  CR B1+2c
Malaysia (Peninsular Malaysia)
The species has not been recorded since the type collection was gathered from Ulu Gombak Forest.
Reserve in Selangor, despite intensive botanical work in the area.
Assessor: World Conservation Monitoring Centre
Refs: 8464, 19073

Saxegothea conspicua
Podocarpaceae
LR/nt
Argentina (Chubut, Neuquén, Rio Negro), Chile
A relatively common tree occurring in medium altitude deciduous forest. The habitat is extensively logged. The wood of this species is exploited but the associated broadleaved species are more heavily harvested.
Assessor: SSC Conifer Specialist Group
Refs: 727, 5112, 13041, 13295, 15415

Scaevola chani
Goodeniaceae
VU D2
Malaysia (Sabah)
So far this small tree or shrub is known only from the upper montane forests of Mount Kinabalu between the altitudes of 2500 and 3000m.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Scaevola mukuensi
Goodeniaceae
VU D2
Malaysia (Sarawak)
The shrub up to 1m high, is found on exposed ridges and cliff faces of limestone. Only two collections are known from Gunong Api in the Gunong Mulu National Park.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Scaevola verticillata
Goodeniaceae
VU D2
Malaysia (Sarawak)
Probably endemic, this very small tree or shrub is recorded only from Mount Tambuyukon in stunted subalpine vegetation on ultramafic soils at an elevation of 2500m.
Assessor: World Conservation Monitoring Centre
Refs: 19017

Scalesia aspera
Compositae
VU D2
Ecuador (Galápagos)
A bushy species, restricted to two small populations, occurring in lowland scrub in north-west Santa Cruz and Eden Islet. The former population is subject to grazing by introduced goats, but there is no firm evidence of decline.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156, 19157

Scalesia atracyloides
Compositae
CR A 1ace, B 1+2c, C 1+2b, D 1
Ecuador (Galápagos)
A single population of three individuals exists in a crater on Santiago Island. In 1997, seven seedlings were also counted. The plants are subject to grazing by introduced goats, but a fence is under construction to prevent access. A single plant has been raised in cultivation in the Galápagos and the vegetatively produced offspring of two other adults are growing in Copenhagen Botanical Garden.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

Scalesia baurii ssp. baurii
Compositae
VU D2
Ecuador (Galápagos)
Restricted to Pinzón Island, the subspecies occurs in areas of open woodland and scrub which are free of introduced herbivores. As long as goats and other grazing animals are denied access to the island, the populations are likely to remain stable.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

Scalesia baurii ssp. hopkinsii
Compositae
VU D2
Ecuador (Galápagos)
Endemic to the islands of Pinta and Wolf, this shrub or small tree forms part of the open understorey in dry deciduous steppe forest. The population on Wolf is not suffering from grazing damage. On Pinta, the species is relatively common but subject to damage by introduced goats. Severe declines in this population were recorded in the 1970s. Since the goats have been more effectively managed, a rapid recovery in population numbers has been observed and the species is now believed to be stable.
Assessor: Tye, A. & J. Loving
Refs: 5101, 14556, 19146, 19156

Scalesia cordata
Compositae
EN B1+2c
Ecuador (Galápagos)
A small tree which formerly made up extensive woodland on the slopes of two volcanoes, Sierra Negra and Cerrá Azul on Isabela Island. A continuing decline in the extent of the woodland is evident. Damage is being caused by introduced herbivores, invasive weeds are causing habitat degradation and areas are being cleared by local inhabitants. There is also the constant threat of volcanic eruption.
Assessor: Tye, A. & J. Loving
Refs: 5101, 14556, 19146, 19156

Scalesia crockeri
Compositae
VU D2
Ecuador (Galápagos)
Most typically a bush, the species is confined to areas of lowland scrub on three of the Galápagos Islands. There is a single population on North Seymour, two on Baltra and several small populations on the north and east coasts of Santa Cruz. There is no firm evidence of decline, despite the damage caused by introduced herbivores on Santa Cruz.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

Scalesia divisa
Compositae
CR B 1+2bcde
Ecuador (Galápagos)
Restricted to the north-eastern half of San Cristóbal Island, the species, most typically occurring as a bush, has become scarce in areas where it was previously recorded as abundant. Introduced goats, the main cause of these population declines, continue to cause extensive damage to remaining stands.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156
**Scalea gordilloi**
Compositae  
Ecuador (Galápagos)
Confined to the south-west coast of San Cristóbal Island, this bushy species occurs in a single population of 200 to 300 individuals, including all age groups. The area is susceptible to damage caused by introduced herbivores and also, to some extent, by tourism.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

**Scalea helleri ssp. helleri**
Compositae  
Ecuador (Galápagos)
A bushy species, existing in two populations. On Santa Fé Island, although population numbers have been severely reduced by introduced goats, it is hoped they will fully recover now that the animals have been eradicated from the island. The population on Santa Cruz Island is very low in numbers and confined to the south-east. Goats also cause damage here, but there is no firm evidence of population decline. There is some indication that this latter population actually represents a hybrid form between *helleri* and *retroflexa*.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

**Scalea helleri ssp. santacruzensis**
Compositae  
Ecuador (Galápagos)
A bushy species, represented by several small populations principally confined to the south-west coast of Santa Cruz Island, with a few individuals on La Fe Islet. Although the Santa Cruz populations are subject to damage by introduced goats, there is no firm evidence of a decline. The species is used as a garden plant in Puerto Ayora on Santa Cruz.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156, 19157

**Scalea incisa**
Compositae  
Ecuador (Galápagos)
Endemic to San Cristóbal Island, this small tree is scattered in a restricted area in the east. Trees are subject to damage by introduced goats, but there is no firm evidence of a population decline.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

**Scalea microcephala var. cordifolia**
Compositae  
Ecuador (Galápagos)
One of two varieties, this tree forms woodlands on the high slopes of the volcanoes Wolf and Ecuador on Isabela Island. Introduced goats are responsible for damage to the trunks of mature trees and the lack of seedlings in the population. Volcanic eruptions pose an additional threat.
Assessor: Tye, A. & J. Loving
Refs: 14556, 19146, 19156

**Scalea microcephala var. microcephala**
Compositae  
Ecuador (Galápagos)
This variety occurs in populations on the high slopes of Fernandina Island and on Volcan Alcedo and Volcan Darwin on Isabela Island. A continuing decline in population numbers has been observed on Isabela, caused by the damage from introduced goats. There is an added threat of volcanic eruption.
Assessor: Tye, A. & J. Loving
Refs: 14556, 19146, 19156

**Scalea pedunculata**
Compositae  
Ecuador (Galápagos)
One of the largest growing *Scalea* species. It forms compact woodlands in the highlands of San Cristobal, Santa Cruz, Santiago and Floreana. Recent declines in the extent of this habitat have occurred because of land settlement, grazing and the spread of invasive plants. These trends appear to be continuing. There is also a potential threat from volcanic eruption.
Assessor: Tye, A. & J. Loving
Refs: 14556, 19146, 19156

**Scalea retroflexa**
Compositae  
Ecuador (Galápagos)
Six small populations occur within 6ha of open forest and scrub on the south-east coast of Santa Cruz Island. About 4600 plants, including 1400 adults, are thought to exist. Although there is evidence of damage by introduced goats, there is no firm indication that the population is declining as a result.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156, 19157

**Scalea stewartii**
Compositae  
Ecuador (Galápagos)
This tree species is restricted to a sparsely vegetated area in the east of Santiago Island and to a population of fewer than 250 individuals on the neighbouring islet of Bartolomé. The Santiago localities are vulnerable to introduced goats, although no decline in population numbers has yet been documented.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

**Scalea villosa**
Compositae  
Ecuador (Galápagos)
Typically occurring as a bush, the species is found on Floreana Island and the islets of Champion, Enderby, Caldwell and Gardner-near-Floreana. The population on the main island is subject to damage by introduced goats, although no decline in numbers has yet been documented.
Assessor: Tye, A. & J. Loving
Refs: 19146, 19156

**Scaphium longiflorum**
Sterculiaceae  
Malaysia (Peninsular Malaysia)
Occurring in swampy or semi-swampy rainforest in the states of Kedah, Penang, Perak, Selangor and Johore, this tree is exploited as timber for major international trade and as a medicine for minor international trade. The greatest threats are increasing settlement and logging activities.
Assessor: Chua, L.S.L.
Refs: 8464, 19073
Seaphopetalum parvifolium
Stereocaulionaceae
Nigeria
This small forest tree is recorded from the Oban Hills, within Cross River National Park. Unprotected forest has been extensively logged and cleared for cultivation.
Assessor: World Conservation Monitoring Centre
Refs: 2773, 4977, 11504

Schefflera agamae
Araliaceae EN A1c, B1+2c
Philippines
This tree has been collected only once, 70 years ago, from lowland forest on rocky hills in south Palawan. It is threatened by forest loss, although Palawan has experienced less intense deforestation than the other Philippine Islands. The main island of Palawan is a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

Schefflera albidio-bracteata
Araliaceae EN A1c, B1+2c
Philippines
An epiphytic shrub or small tree known from only two collections from montane forest in the north-east of Mindanao. This species has not been collected since 1912.
Assessor: Frodin, D.
Refs: 4986, 19079

Schefflera apiculata
Araliaceae DD
Indonesia (Moluccas)
A shrub or tree found on Bacan, Halmahera, Ternate and Maluku, possibly extending to Waigeo, Irian Jaya. It is known from only a few collections but this could be due to undercollecting in the region. Varieties and subspecies are likely to be identified when more collections are made.
Assessor: Frodin, D.
Refs: 17232, 19079

Schefflera apioidea
Araliaceae VU B1+2c
New Caledonia
A tree restricted to a very limited area of lowland forest on the west coast, where habitat destruction has been considerable. No new material has been recorded since the late 1800s. There is a possibility that the species is conspecific with S. veitchii, four specimens of which have been collected in the Bourail region.
Assessor: Jaffré, T. et al.
Refs: 10351, 19079

Schefflera beccariana
Araliaceae VU D2
Malaysia (Peninsular Malaysia, Sarawak)
This lowland forest species is known from two collections from Johore, Peninsular Malaysia, and two disjunct, slightly differing populations in Sarawak. The population in western Sarawak was rediscovered 62 years after it was first found near Kuching, an area extremely threatened by urban expansion. A specimen collected in the late 1800s from Lingga Island is similar to this species.
Assessor: Frodin, D.
Refs: 17140, 19079

Schefflera bourdillonii
Araliaceae EN B1+2c
India (Kerala)
This shrub or small tree has so far been collected twice from montane forest in the Travancore Hills in the southern Western Ghats.
Assessor: Frodin, D.
Refs: 15926, 19079

Schefflera brevipes
Araliaceae VU A2c
Costa Rica, Panama
This species is relatively common in moist evergreen forest and woodlands in the low mountains of Heredia, Alajuela, Guanacaste and Limón in Costa Rica. In Panama there are a few minor populations around the Canal region and in the province of Panamá and it is expected to be found further west. Some localities are within protected areas, where regeneration has been observed to be relatively good. Other areas are affected by the growing settlement of land, logging and extensive agriculture.
Assessor: Mitré, M.
Refs: 7980, 16772

Schefflera caputlifera
Araliaceae VU D2
Indonesia (Sumatra)
A small hemiepiphytic tree collected five times in northern Sumatra. This distinctive species is found in montane forest and along forest edges in deep ravines. It is found in Gunung Leuser National Park.
Assessor: Frodin, D.
Refs: 10547, 19079

Schefflera cephalotes
Araliaceae EN B1+2c
Malaysia (Peninsular Malaysia, Sarawak), Singapore
A forest tree with a restricted and disjunct distribution. It is known from Penang Hill Reserve in Peninsular Malaysia and a site west of Kuching in Sarawak, where it is threatened by urban encroachment. The population in Singapore is presumed extinct.
Assessor: Frodin, D.
Refs: 9199, 19079

Schefflera chapana
Araliaceae VU B1+2c
China (Yunnan), Viet Nam
Endemic to the Fan Ci Pan range, extending from northern Viet Nam into Yunnan, China, this tree is localised in forest between 1000 and 1200m.
Assessor: Frodin, D.
Refs: 11530, 19079

Schefflera costata
Araliaceae VU D2
Fiji
This localised tree is known from two mountain tops: Tomauivi (Victoria Peak) and the west slopes of Taveuni. It is confined to small areas of rainforest over 900m. Its restricted distribution renders the species susceptible to stochastic events, but there are no direct threats at the present time.
Assessor: Frodin, D.
Refs: 18818, 19079
Schefflera curranti
Araliaceae
Philippines
A montane forest species found on ultramafic soils in central Palawan. It is known from only three herbarium specimens and was last seen in the 1970s-80s.
Assessor: Frodin, D.
Refs: 4986, 19079

Schefflera diplodactyla
Araliaceae
VU D2
Ecuador
Extremely localised in eastern Ecuador, this tree is threatened by increasing settlement and oil exploration.
Assessor: Frodin, D.
Refs: 1984

Schefflera dolichostyla
Araliaceae
VU D2
Peru
Collected only once or twice, the species is restricted to cloud forest in the Peruvian Andes in the departments of Puno and Cusco.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Schefflera euryphylla
Araliaceae
VU D2
Peru
A cloud forest species, known only from the department of Junín in the Peruvian Andes.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Schefflera euthytricha
Araliaceae
DD
Fiji
A small tree found in the lowlands of Viti Levu.
Assessor: Frodin, D.
Refs: 18188, 19079

Schefflera fastigiata
Araliaceae
EN A1c, B1+2c
Indonesia (Java)
This species is found in forest remnants on Nusa Kambangan and possibly Ujung Kulon. It was last collected in 1970. Nusa Kambangan is an island controlled by the Prison Service, with very limited access. However, the vegetation of the island is threatened by timber thieves, who are removing timber regardless of the armed guard patrol.
Assessor: World Conservation Monitoring Centre
Refs: 9078, 15417

Schefflera gleasonii
Araliaceae
VU D2
Puerto Rico
A montane forest tree confined to ultramafic soils in the central Puna range of Puerto Rico.
Assessor: World Conservation Monitoring Centre
Refs: 7980

Schefflera harmsii
Araliaceae
DD
Peru
A shrub or small tree of lowland forest on white sand, known only from a few collections, the last of which is dated 1974.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Schefflera kontumensis
Araliaceae
EN B1+2c
Viet Nam
Very localised in the central highlands of Viet Nam, this small tree is known from a single collection. The area is relatively poorly explored.
Assessor: Frodin, D.
Refs: 11530, 19079

Schefflera kuchingensis
Araliaceae
CR B1+2c
Malaysia (Sarawak)
This multi-stemmed tree, which can be epiphytic, is known only from an area extremely threatened by urban expansion near Kuching. It is known from a total of four collections, two of which were recently gathered from the Sumengo Arboretum.
Assessor: Frodin, D.
Refs: 19079

Schefflera lukwungulensis
Araliaceae
VU B1+2b
Tanzania
Localised on ridge tops in upper montane forest, this species is restricted to the north and south Upland Mountains, the west Usambara Mountains and south Nguru. Changes to land use and local habitat degradation represent a threat. The Upland Mountains are the focus of a conservation programme.
Assessor: Lovett, J. & G.F. Clarke
Refs: 5204, 8221, 11631

Schefflera multijfoliata
Araliaceae
EN B1+2c
Indonesia (Sumatra)
A montane forest tree restricted to Gunung Sibajak, Sibalangit and Banda Baru of northern Sumatra. The species’ description was based on eight specimens, the most recent of which was collected in 1983. The population on Gunung Sibajak is close to a popular tourist destination near Medan. The habitat is also threatened by shifting cultivation.
Assessor: Frodin, D.
Refs: 10547, 19079

Schefflera nanocephala
Araliaceae
LR/cd
Malaysia (Peninsular Malaysia)
Last collected in 1970, this small epiphytic tree occurs in montane forest and forest edges north of the Genting Highlands Casino complex and the Cameron Highlands. Populations receive a degree of protection within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073, 19079

Schefflera nervosa
Araliaceae
VU D2
Malaysia (Peninsular Malaysia)
This species is known from three distinct forms, which could possibly be described as separate species. All are highly localised. The first form is confined to the Cameron Highlands; it has been collected twice from an isolated area, most recently in 1938. The second form,
Species Summaries

Schefflera troyana
Araliaceae
Jamaica
A Cockpit Country endemic, found in low densities in woodland and woodland margins on rocky limestone in the central and west-central parishes. The habitat is under the constant threat of being cut or cleared for agricultural expansion, e.g. at Peckham Woods.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 7980

Schefflera urbaniana
Araliaceae
Martinique
A large tree, rare within dense humid forest, endemic to Martinique. It is known from only four collections from before the 1940s.
Assessor: World Conservation Monitoring Centre
Refs: 10754

Schefflera veitchii
Araliaceae
EN B1+2c
New Caledonia
This tree is restricted to lowland forest below 100m in the coastal semi-dry region around Noumena and Anse Vata in south-east New Caledonia. A lot of urban development has taken place in this region. Anse Vata is a fully developed beach resort area and the species was last collected there in 1925. It was collected in 1926 in the Montraval Reserve. It was introduced into cultivation in the 1860s in the UK, where it became a popular table pot plant. It may still be in cultivation. The specimens from Bourail are most likely to be S. apioidea.
Assessor: Jaffré, T. et al.
Refs: 10351, 19079

Schefflera wrayi
Araliaceae
DD
Malaysia (Peninsular Malaysia)
A small tree known only from one specimen collected in 1888 south of Ringlet. This remote locality has not been revisited.
Assessor: Chua, L.S.L.
Refs: 8464, 19073, 19079

Schima wallichi var. pulgarensis
Theaceae
VU B1+2c, D2
Philippines
Endemic to Palawan, the species is confined to mossy scrub on ridges between 1000 and 1200m. The main island of Palawan is a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

Schinopsis haenkeana
Anacardiaceae
VU A1cd
Argentina (Córdoba, San Juan, San Luis), Bolivia
A characteristic tree of the Chaco Serrano. In Argentina populations range from the north-east up to San Juan, San Luis and Córdoba. The habitat is rapidly declining throughout the range, particularly in Córdoba.
Assessor: World Conservation Monitoring Centre
Refs: 1803, 5112, 13657

last seen in 1977, is from the Genting Highlands resort complex. The third form occurs locally in Terengganu, where it is known from five collections, the most recent dating from the 1960s.
Assessor: Frodin, D.
Refs: 8464, 19073, 19079

Schefflera palawanensis
Araliaceae
EN A1c
Philippines
This suberect shrub or small tree reaches about 4m in height. It is restricted to the north of Palawan, where it occurs in forest on limestone. Habitat loss is a threat.
Assessor: Frodin, D.
Refs: 4986, 19079

Schefflera palmiformis
Araliaceae
EN B1+2c
Viet Nam
This endemic tree is known from only a few collections in an area experiencing extensive habitat decline.
Assessor: Frodin, D.
Refs: 5054, 11530, 19079

Schefflera procumbens
Araliaceae
VU D2
Seychelles
The species is confined to Silhouette Island, having become extinct on Mahé largely through the degradation of its habitat. The six remaining populations are stable and confined to the main mountain ridges within an area of 100ha, which is under the protection of the Nature Protection Trust of Seychelles. Attempts to bring the species into cultivation have failed.
Assessor: Nature Protection Trust of Seychelles
Refs: 17229, 19025

Schefflera pueckleri
Araliaceae
LR/rd
Malaysia (Peninsular Malaysia)
A rare large shrub or small tree found in montane cloud forest at about 1370m. Populations receive a degree of protection within the permanent forest estate in Perak and the Cameron Highlands in Pahang.
Assessor: Chua, L.S.L.
Refs: 8464, 19073, 19079

Schefflera seibertii
Araliaceae
DD
Costa Rica, Panama
In Panama the species is known only from the type collection made in 1940. Despite considerable botanical activity in the area, it has not been found there again. It is reported from the mountains of Alajuela in Costa Rica, but there is no additional information on this population. Field investigations are needed to determine whether the species still exists or whether it is a synonym of S. sphaeroconia.
Assessor: Minet, M.
Refs: 7272, 7980, 15926, 16772

Schefflera stearnii
Araliaceae
EN B1+2c
Jamaica
Endemic to Portland, this species occurs in moist thickets on limestone above 600m. There is some question of its being conspecific with S. sciodaphyllum.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980
Schinus engleri
Anacardiaceae DD
Argentina (Buenos Aires, Corrientes, Entre Ríos, Santa Fé), Brazil (Minas Gerais, Paraná, Rio Grande do Sul), Uruguay
Although widely occurring, the range of the species has probably receded greatly with the spread and intensification of agriculture.
Assessor: Prado, D.
Refs: 1262, 7134

Schinus gracilipes var. pilosus
Anacardiaceae VU B1+2c
Argentina, Bolivia
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122

Schinus longifolius var. paraguariensis
Anacardiaceae VU D2
Paraguay
A species which ranges from Brazil to Argentina. This taxon represents a localised variety which occurs in a calcareous region in the upper reaches of the Rio Apa. It is known only from the type locality.
Assessor: Prado, D.
Refs: 1262, 7980

Schinus pearcei
Anacardiaceae DD
Bolivia, Chile (Atacama), Peru
A dryland species, which appears to be scarce, particularly in Chile, where it is restricted to the Atacama region.
Assessor: González, M.
Refs: 4870, 16328

Schinus venturi
Anacardiaceae VU B1+2c
Argentina, Bolivia
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species occurs in an unprotected ecosystem, which is rapidly being replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122

Schippiopsis concolor
Palmae VU A2c
Belize
An ornamental palm tree restricted to Mountain Pine Ridge and Cayo District, where it is scattered in open and closed dry forest up to 500m. The species is threatened by habitat destruction and encroachment by agriculture and forestry.
Assessor: Johnson, D.
Refs: 19118

Schmaradaeae microphylla
Melaceae VU A1c
Colombia, Ecuador, Peru, Venezuela
A small tree which is becoming increasingly scarce, occurring in the Andes from Venezuela to Peru. It is recorded from open pastures and dry forest at medium elevation and from cloud forest at 2700m in Peru. Naturally uncommon, the species has come under intense pressure from habitat clearance. It is a monotypic genus.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 12281, 19069

Schoepfia arenaria
Olacaceae EN D1
Puerto Rico
A hemiparasitic tree, known from about four sites containing 120 individuals in total. Isabela harbours the largest population. The Pinones population was heavily hit by Hurricane Hugo, but has produced large seed crops as a consequence.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124

Schoepfia harrisii
Olacaceae VU B1+2c
Jamaica
A Cockpit Country endemic, occurring in the parishes of Clarendon and Trelawny on moist wooded limestone crags, between 600 and 900m.
Assessor: Kelly, D.L.
Refs: 5653, 19085

Schoepfia multiflora
Olacaceae LR/nt
Jamaica
Known from the central parishes, the tree has an occasional distribution in woodland on rocky limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Schoutenia cornerii
Tiliaceae EN B1+2c
Malaysia (Peninsular Malaysia)
A rare tree of lowland moist forest known only from Mersing and Mawai-Jemaluang, Johore.
Assessor: Chung, R.C.K.
Refs: 17140, 19073

Schoutenia furfuracea
Tiliaceae LR/ed
Malaysia (Peninsular Malaysia)
A tree of lowland moist forest known only from Ulu Sungai Anak Endau, Pahang.
Assessor: Chung, R.C.K.
Refs: 8464, 19073

Schoutenia kunstleri
Tiliaceae VU B1+2c
Malaysia (Peninsular Malaysia)
A rare tree known only from Penang, Perak and the east coast from Terengganu to Johore, where it grows in lowland rainforest.
Assessor: Chung, R.C.K.
Refs: 19073

Schumacheria alnifolia
Dilleniaceae CR B1+2c
Sri Lanka
Only six individuals of this species were found in the Peak Wilderness Sanctuary during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting it to be either extremely rare or possibly extinct.
Assessor: World Conservation Monitoring Centre
Refs: 19112
Schumannophyton problematicum
Rubiacae
Côte d’Ivoire, Ghana, Sierra Leone
A species known from the restricted wet evergreen forests of the Upper Guinea region. The extent of these forests has declined because of mining, logging and the establishment of industrial plantations.
Assessor: Hawthorne, W.
Refs: 2773, 8369, 12061

Sciadopitys verticillata
Sciadopityaceae
VU A1c, B1+2c
Japan
A tree of low to medium elevations occurring in forested areas from Fukushima to Hiroshima on Honshu Island, and also on Shikoku and Kyushu Islands. It provides a useful timber and levels of exploitation have been considerable. It belongs to a monospecific family.
Assessor: SSC Conifer Specialist Group
Refs: 374, 18751

Sclerocephala gillettii
Anacardiaceae
VU B1+2c
Kenya
Endemic to a small area in eastern Kenya, this shrub or small tree occurs sparsely in localised areas of dry bushland on red sand.
Assessor: World Conservation Monitoring Centre
Refs: 6396

Sclerocephala beaureipaire
Leguminosae
EN B1+2c
Brazil (Rio de Janeiro)
Populations of the species are principally confined to forest on the slopes of the Serra do Mar.
Assessor: Vaz, A.M.S.
Refs: 19100

Sclerocephala densiflorum
Leguminosae
LR/nt
Brazil (Alagoas, Bahia, Pemambuco)
Known only from a restricted distribution in Atlantic forest, the species has suffered dramatic habitat declines and levels of exploitation.
Assessor: Vaz, A.M.S.
Refs: 19098, 19100

Sclerocephala densudatum
Leguminosae
LR/nt
Brazil (Rio de Janeiro, São Paulo)
Confined to Atlantic forest in the states of São Paulo and Rio de Janeiro, the species has suffered dramatic habitat loss and has been extensively exploited for its timber.
Assessor: Vaz, A.M.S.
Refs: 19098, 19100

Sclerocephala pilgerianum
Leguminosae
EN B1+2cd
Brazil (Rio de Janeiro)
A species of montane forest, confined to the slopes of the Serra do Mar.
Assessor: Vaz, A.M.S.
Refs: 19100

Sclerocephala striatum
Leguminosae
VU B1+2c
Brazil (Rio de Janeiro)
Endemic to Atlantic forest in the one state in Brazil, the species has suffered dramatic habitat declines.
Assessor: Vaz, A.M.S.
Refs: 19098, 19100

Scolopia oreophila
Flacourtiaceae
DD
South Africa (KwaZulu-Natal, Mpumalanga)
This species is confined to a small area in the northern Drakensberg mountain range, where it occurs as scattered plants in Afromontane forest patches. It is also said to occur in North-West Province, but this is highly improbable. Two of the localities are in private nature reserves. There are taxonomic problems with the species, which need to be resolved before its conservation status is assessed.
Refs: 689, 19218

Scolopia steenisiana
Flacourtiaceae
VU D2
Malaysia (Peninsular Malaysia)
Known from only two collections, this tree can be found in the open limestone rainforests of Iowand Kelantan.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Scolosanthes howardii
Euphorbiaceae
EN B1+2c
Jamaica
A small tree or shrub which occurs very rarely on rocky limestone hills between 480 and 600m, only in the parish of Trelawny.
Assessor: Kelly, D.L.
Refs: 401, 5653, 19085

Sebastiania alpina
Euphorbiaceae
VU B1+2c
Jamaica
A montane rainforest species found uncommonly in the western highlands above 750m.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Sebastiania crenulata
Euphorbiaceae
CR B1+2c
Jamaica
This species is known from the woodland on the summit of Bubby Hill. The area is susceptible to selective logging and other disturbances.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Sebastiania fasciculata
Euphorbiaceae
EN B1+2c
Jamaica
A shrub or small tree confined to a small area of woodland on limestone in Hanover.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Species Summaries
Sebastiania howardiana
Euphorbiaceae CR B1+2c
Jamaica
Apparently, the species is known only from the Ramgoat Cave area in Trelawny.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Sebastiania huallagensis
Euphorbiaceae VU D2
Peru
This species is known only from the type collection taken from the department of San Martin.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Sebastiania lesteri var. glabrata
Euphorbiaceae CR B1+2c
Jamaica
A variety or possibly a distinct species. It occurs in St Elizabeth, where the only known population is on Top Hill. The area is susceptible to cutting and encroaching agriculture.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Sebastiania lesteri var. lesteri
Euphorbiaceae CR B1+2c
Jamaica
One of two threatened varieties of a Jamaican endemic. It appears to be known from two populations. The one on Quaco Rock is probably extinct as the vegetation has been cleared, largely for charcoal production. There is also a population along the road between Balcarres and Sunbury.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 11802

Sebastiania spicata
Euphorbiaceae EN B1+2c
Jamaica
Populations are restricted to Peckham Woods and Douglas Castle Woods. There is evidence of cutting and agricultural encroachment in both localities.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Securinega flexuosa
Euphorbiaceae VU A1c
Philippines
A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.
Assessor: World Conservation Monitoring Centre
Refs: 2072, 4919

Semecarpus auriculata
Anacardiaceae LR/nt
India (Kamataka, Kerala, Tamil Nadu)
The main concentration of the species occurs in low- to medium-altitude forest in Travancore, along the border between Kerala and Tamil Nadu. Collections have also been made further north in the Western Ghats into Karnataka.
Assessor: World Conservation Monitoring Centre
Refs: 15106, 19144

Semecarpus coriacea
Anacardiaceae EN B1+2c
Sri Lanka
During the extensive forest surveys conducted for the National Conservation Review, this tree was found in five localities, mainly in Nuwara Eliya District. It is present in the Peak Wilderness Wildlife Sanctuary.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17759, 19112

Semecarpus gardneri
Anacardiaceae VU A1c
Sri Lanka
A tree restricted to the lowland evergreen rainforests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Semecarpus marginata
Anacardiaceae VU A1c
Sri Lanka
A rare tree confined to wet evergreen lowland forest in south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Semecarpus moonii
Anacardiaceae VU A1c, B1+2c
Sri Lanka
Apparently restricted to wet forest in Galle, Kalutara and Ratnapura Districts, this species was found in nine localities during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 12129, 15431, 18796, 19112

Semecarpus nigro-viridis
Anacardiaceae VU A1c
Sri Lanka
This species is scattered in the diminished wet evergreen lowland forests of south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Semecarpus obovata
Anacardiaceae VU A1c, B1+2c
Sri Lanka
A very rare species restricted to the wet zone of Sri Lanka. Until the National Conservation Review forest surveys of 1991–1996, this species went uncollected for over a century.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 16943, 18796, 19112
**Species Summaries**

**Semecarpus ochracea**
Anacardiaceae  
CR B1+2cd  
Sri Lanka  
An endemic species scattered in lowland wet evergreen forest. It was not rediscovered during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, indicating it to be extremely rare or possibly extinct.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17195, 19112

**Semecarpus parvifolia**
Anacardiaceae  
VU A1c  
Sri Lanka  
A species occurring in lowland wet evergreen forests in south-west Sri Lanka. A population has been discovered in the dry zone in Rahuna National Park.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 16943, 17195

**Semecarpus paucinervius**
Anacardiaceae  
VU B1+2c  
Philippines  
This tree is endemic to Palawan, found in forest along streams, at about 100m. The main island of Palawan is a biosphere reserve.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4986

**Semecarpus pseudo-emergina**
Anacardiaceae  
CR B1+2c  
Sri Lanka  
This species was recorded only once in Matara District during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19112

**Semecarpus pubescens**
Anacardiaceae  
VU A1c  
Sri Lanka  
A rare species, restricted to lowland wet evergreen forest in south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195

**Semecarpus riparia**
Anacardiaceae  
EN B1+2c  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351

**Semecarpus subpeltata**
Anacardiaceae  
VU A1c  
Sri Lanka  
A species occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195

**Semecarpus walkerii**
Anacardiaceae  
VU A1c  
Sri Lanka  
A species occurring in the lowland wet evergreen forests of south-west Sri Lanka.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17195

**Semiliquidambar cathayensis**
Hamamelidaceae  
LR/nt  
China (Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Zhejiang)  
A tree of lowland forests and open woodland by stream-sides. The species' distribution is relatively widespread in southern China, extending into Lang Son and Son La Provinces in Viet Nam. However, it is becoming scarcer because of overexploitation, habitat destruction and clearance for agriculture. The roots have various important medicinal uses.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1818, 11847

**Senecio lamarkianus**
Compositae  
CR D1  
Mauritius  
Fewer than 12 adult individuals are known, most of them in Piton du Fougé Ridge Forest. There is a chance there are more individuals in more remote areas. The species has been propagated from cuttings and introduced into Mondrain Nature Reserve.  
**Assessor:** Page, W.  
**Refs:** 1411, 9120, 15251, 16426

**Senna caudata**
Leguminosae  
VU C2a  
Costa Rica, Panama  
At one time the species was divided into the Panamanian form, var. caudata, known only from the type collection from the province of Panamá in 1911, and the Costa Rican form, var. diadema, with a fairly common occurrence in lowland rainforest in San José and Puntarenas. There have been no further collections of the species in Panama, despite the area round the type locality being relatively well known.  
**Assessor:** Mitré, M.  
**Refs:** 7980, 15037, 16772

**Senna darianensis var. hypogluca**
Leguminosae  
VU C2a  
Panama  
The species is distributed in rainforest up to 1000m along the Cordillera Central, in the provinces of Veraguas, Cocle and Panamá. It is known from only a few records, but a large part of these mountains remains poorly explored. The populations in Campana National Park are well protected. In other areas there are strong influences from encroaching settlement, agriculture and pastoralism.  
**Assessor:** Mitré, M.  
**Refs:** 16772

**Senna domingensis**
Leguminosae  
VU B1+2c  
Cuba, Dominican Republic, Haiti  
Known in Cuba from a single locality in the coastal areas of Daiquirí, Santiago de Cuba Province, this small tree occurs infrequently in dry evergreen shrubwood and shrubland on limestone. Its habitat type has been degraded in many places. Tourism is the major threat in Cuba. The species is more widespread and more common in Hispaniola.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 19149
*Senna multijuga* ssp. *doylei*
Leguminosae  
**VU A1c**  
Mexico (Chiapas, Oaxaca, Tabasco, Veracruz)
Confined to the Gulf region, this taxon occurs in remaining rainforest from northern Veracruz southwards.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5993

*Sequoia sempervirens*
Taxodiaceae  
**LR/cd**  
USA (California, Oregon)  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 374, 3786, 7222, 13041

*Sequoadendron giganteum*
Taxodiaceae  
**VU A1cd**  
USA (California)  
An emergent of mixed montane forests. There was large-scale logging of populations between 1856 and 1955, but 90% of the population is now protected. Fire prevention policy, causing a build-up of undergrowth, may have hampered regeneration in the past. Schemes to improve management and to plant trees on cleared land are in place.  
**Assessor:** SSC Conifer Specialist Group  
**Refs:** 7222, 13041

*Serianthes calycina*
Leguminosae  
**VU C2a**  
New Caledonia  
A species which can be divided into two varieties, both endemic to New Caledonia. It occurs in lowland areas of maquis or forest on ultramafic substrate in the northwest of Grand Terre and possibly also on Ile Yandé. These areas are unprotected and exposed to various threats from fire, mining activities and habitat clearance or degradation.  
**Assessor:** Jaffré, T. *et al.*  
**Refs:** 4492, 10351, 12630

*Serianthes margaretae*
Leguminosae  
**VU C2a**  
New Caledonia  
A species which appears to have two disjunct populations. Both occur in littoral maquis on ultramafic soils, one near Koumac in the north-west and the other further south on the east coast.  
**Assessor:** Jaffré, T. *et al.*  
**Refs:** 10351, 12630

*Serianthes melanesica var. *meeboldii*
Leguminosae  
**VU D2**  
Fiji  
An inadequately known tree, similar to the type variety and collected only once from Rewa Province, Viti Levu.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18818

*Serianthes myriadenia*
Leguminosae  
**LR/nt**  
French Polynesia (Marquesas Is., Society Is.)  
In the Marquesas the species is confined to Nuku Hiva. In the Society Islands, populations are recorded from Moorea, Raiatea and Tahiti. The Raiatea population is critically endangered.  
**Assessor:** Florence, J.  
**Refs:** 14513

*Serianthes nelsonii*
Leguminosae  
**CR D1**  
Guam, Northern Mariana Islands  
A large tree of moist forest on limestone substrate. There are about 120 trees on Rota and only one remains on a military base on Guam. Lack of regeneration seems to be the main cause of the population decline. Possible causes include insect predation on the seeds, ungulate predation of the seedlings and seedling mortality caused by introduced mealymugs. The population on Rota is likely to decline as older trees die. The species is protected by the US Endangered Species Act and in government legislation in Guam and the Northern Mariana Islands.  
**Assessor:** Wiles, G.  
**Refs:** 2196, 16676, 19175

*Serianthes petitiana*
Leguminosae  
**LR/cd**  
New Caledonia  
Endemic to southern Grand Terre, the species occurs in lowland rainforest and maquis formations on ultramafic soil. Populations are believed to be effectively protected in Rivière Bleue Provincial Park.  
**Assessor:** Jaffré, T. *et al.*  
**Refs:** 10351, 12630

*Serianthes rurutensis*
Leguminosae  
**CR B1+2c**  
French Polynesia (Tubuai Is.)  
Little is known about the population on Raivavae, but on Rurutu the species is in a critical state.  
**Assessor:** Florence, J.  
**Refs:** 14513

*Serianthes vitiensis*
Leguminosae  
**VU D2**  
Fiji  
Known only with certainty from Vanua Levu, the species has been collected from forest near creeks on the lower slopes of mountains in Mathuata Province.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 18818

*Sericanthe odoratissima var. *odoratissima*
Rubiaceae  
**VU B1+2b**  
Tanzania  
The distribution of this small tree is not consolidated. There is a population at Amani and possibly another at Ambangula at medium elevations in moist evergreen forest.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814

*Sericanthe odoratissima var. *ulugurenensis*
Rubiaceae  
**VU B1+2b**  
Malawi, Tanzania  
This variant is more widespread than the type variety and is restricted to montane forest at higher altitudes. Populations are known from the Uluguru Mountains, Mount Runge in Tanzania and also from Malawi.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 1308, 3356, 8814

*Sericanthe toupetou*
Rubiaceae  
**EN B1+2c**  
Côte d'Ivoire, Ghana  
The range of this species is restricted to wet evergreen forest in Côte d'Ivoire and neighbouring Ghana. It is
uncommon and has suffered from the significant declines in its habitat caused by logging, mining and expansion of commercial plantations.

**Assessor:** Hawthorne, W.

**Refs:** 6127, 12061, 15251

**Sesbania cocinea** ssp. **atollensis**

*Leguminosae*  DD

French Polynesia (Marquesas Is., Society Is., Tuamotu Is.)

A shrub or small tree known from five varieties which occur on various islands in the Marquesas, Tuamotu and Society Groups. Populations on Moorea, Raiatea, Tahiti, Tetiaroa are apparently now extinct and on other islands they are under some threat.

**Assessor:** Florence, J.

**Refs:** 14313

**Sessea brasiiliensis**

*Solanaeae*  DD

Brazil (Minas Gerais, Rio de Janeiro, Sao Paulo)

An Atlantic forest species.

**Assessor:** Carvalho, L.d’A.F.

**Refs:** 19098, 19103

**Shorea acuminata**

*Dipterocarpaceae*  CR A1cd

Malaysia

A large dipterocarp of well-drained, undulating land, which is cut for its light and dark red meranti timber.

**Assessor:** Ashton, P.

**Refs:** 9509, 13857

**Shorea acuminatissima**

*Dipterocarpaceae*  CR A1cd

Indonesia (Kalimantan), Malaysia (Sabah)

An enormous tree, endemic to Borneo, found in lowland mixed dipterocarp forest, often on hills and ridges near the coast. The wood is used as yellow meranti. Some populations are known to occur in forest reserves.

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857

**Shorea acuta**

*Dipterocarpaceae*  CR A1cd

Brunei, Malaysia (Sarawak)

Some populations of this species occur in forest reserves.

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857

**Shorea affinis**

*Dipterocarpaceae*  EN A1cd

Sri Lanka

Relatively widely distributed in what remains of Sri Lanka’s lowland wet evergreen forest, this dipterocarp is found scattered on deep rich soils on hillsides. The species is one of the dominant canopy species in the protected area at Sinharaja. However, it was not found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting it has become extremely rare.

**Assessor:** Ashton, P.

**Refs:** 13857, 15431, 17195, 18515, 19112

**Shorea agamii**

*Dipterocarpaceae*  EN A1cd

Indonesia (Kalimantan), Malaysia (Sarawak)

This species, found on leached soils, is cut for its white meranti timber. There are populations also in forest reserves.

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857

**Shorea agamii** ssp. **agamii**

*Dipterocarpaceae*  EN A1cd

Malaysia (Sabah, Sarawak)

Populations of this species are known to occur in forest reserves.

**Assessor:** Ashton, P.

**Refs:** 9501, 13857

**Shorea albida**

*Dipterocarpaceae*  CR A1cd+2cd

Brunei, Indonesia (Kalimantan), Malaysia (Sarawak)

A large timber tree restricted to Brunei, Sarawak and West Kalimantan. It is a characteristic component of the threatened peat-swamp forests, sometimes occurring locally on podzolic soils in heath forest. An area of forest covering about 400,000ha in Brunei may now contain the largest remaining undisturbed stand. Regeneration is reported to be non-existent.

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857, 19949

**Shorea almon**

*Dipterocarpaceae*  CR A1cd

Malaysia (Sabah, Sarawak), Philippines

A large tree, found on hills in lowland mixed dipterocarp forest. The red meranti timber is cut for plywood.

**Assessor:** Ashton, P.

**Refs:** 7673, 13857

**Shorea alutacea**

*Dipterocarpaceae*  VU A1c, B1+2c, C2a, D1

Malaysia (Sarawak)

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857

**Shorea andulensis**

*Dipterocarpaceae*  EN A1cd

Brunei, Malaysia (Sarawak)

A tree of mixed dipterocarp forest tree, suffering from habitat conversion.

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857

**Shorea argentifolia**

*Dipterocarpaceae*  EN A1cd

Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)

A gregarious tree found on clay soils, exploited for its light red meranti timber. Some populations are known to occur in forest reserves.

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857

**Shorea asahii**

*Dipterocarpaceae*  CR A1cd, C2a, D1

Brunei, Malaysia (Sabah, Sarawak)

A tree that is restricted to the mixed dipterocarp forests of Borneo. It is directly threatened by logging operations because its reproductive cycle exceeds the logging cycle.

**Assessor:** Ashton, P.

**Refs:** 7673, 9169, 13857
Shorea assamica ssp. assamica
Dipterocarpaceae  CR A1cd, B1+c
China (Yunnan), India, Malaysia (Peninsular Malaysia), Myanmar
This gregarious tree occurs on slopes and along rivers in lowland evergreen forest. The Chinese population is confined to Yingjiang and is threatened by conversion of the forest to agriculture. In India the species is known from healthy populations, which are regenerating well. The trees are cut for the commercially valuable plywood. Populations of the species are known to occur in some forest reserves.
Assessor: Ashton, P.
Refs: 1818, 3998, 5550, 9169, 11847, 13857

Shorea assamica ssp. glabifera
Dipterocarpaceae  CR A1cd
Indonesia (Moluccas, Sulawesi, Sumatra), Malaysia (Peninsular Malaysia), Philippines, Thailand
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea assamica ssp. koordersii
Dipterocarpaceae  CR A1c
Indonesia (Moluccas, Sulawesi), Philippines
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea assamica ssp. philippinensis
Dipterocarpaceae  CR A1cd, C2a
Philippines
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea astylota
Dipterocarpaceae  CR A1cd, C2a
Philippines
An endemic tree species of the disappearing lowland primary evergreen dipterocarp forests of the Philippines. The balau timber is used for good-quality construction.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea bakoensis
Dipterocarpaceae  CR D1
Malaysia (Sarawak)
Although the population of this species is extremely small, it does occur in a protected reserve.
Assessor: Ashton, P.
Refs: 7673, 13857

Shorea balangeran
Dipterocarpaceae  CR A1cd
Indonesia (Kalimantan, Sumatra)
This common tree of peat-swamp forest is a major source of red meranti timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea balanocarpoides
Dipterocarpaceae  EN A1cd
Brunei, Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
This tree grows on yellow sandy loam on undulating land and ridges. It is used as yellow meranti and the illipe nuts are collected locally.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea bentongensis
Dipterocarpaceae  EN A1c
Malaysia (Peninsular Malaysia)
Endemic to Peninsular Malaysia, this tree is locally common in deep valleys. The wood is used as white meranti. However, the tree is slow-growing and cannot withstand logging because the reproductive cycle exceeds cutting cycles.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea biawak
Dipterocarpaceae  EN A1cd
Brunei, Malaysia (Sarawak)
Found in mixed dipterocarp forest, this tree is threatened by forest conversion and habitat degradation.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea blumutensis
Dipterocarpaceae  CR A1cd+2cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A slow-growing species of lowland dipterocarp forest, threatened directly by logging; the tree is unlikely to reach reproductive maturity within a logging cycle. It is currently being exploited for its yellow meranti timber. The species occurs in some forest reserves.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea bracteolata
Dipterocarpaceae  EN A1cd+2cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore
Found mostly on well-drained lowland coastal hills, this tree is heavily exploited for white meranti timber, especially in Peninsular Malaysia.
Assessor: Ashton, P.
Refs: 7673, 9169, 9199, 13857, 17140

Shorea brunnescens
Dipterocarpaceae  EN A1cd+2cd, C2a
Malaysia (Sarawak)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea bullata
Dipterocarpaceae  CR A1cd+2cd
Brunei, Malaysia (Sarawak)
A species of mixed dipterocarp forest. Some populations also occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea cara
Dipterocarpaceae  DD
Indonesia (Java)
Assessor: Ashton, P.
Refs: 13857, 16172

Shorea carapae
Dipterocarpaceae  CR A1cd+2cd, D1
Indonesia (Kalimantan), Malaysia (Sarawak)
Endemic to ridges and hill forests in Peninsular Malaysia, this tree is slow-growing and therefore directly threatened by logging operations. The tree is cut for balau timber.
Assessor: Ashton, P.
Refs: 7673, 13857
Shorea chaiana
Dipterocarpaceae  CR A1cd+2cd
Malaysia (Sarawak)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea ciliata
Dipterocarpaceae  EN A1cd+2cd
Malaysia (Peninsular Malaysia)
Assessor: Ashton, P.
Refs: 5550, 7673, 11647, 13857

Shorea colpina
Dipterocarpaceae  CR A1cd+2cd, C2a
Malaysia (Peninsular Malaysia), Singapore
A lowland tree which is cut for red balau timber. It is
directly threatened by logging because its slow growth
prevents the tree from reaching reproductive maturity
within a logging cycle.
Assessor: Ashton, P.
Refs: 5550, 7673, 9199, 11647, 13857

Shorea congestiflora
Dipterocarpaceae  CR A1cd
Sri Lanka
A characteristic species of remnant lowland wet
evergreen forest, forming one of the dominant
components of the canopy in Sinharaja Biosphere
Reserve. However, it was not discovered during the
extensive forest surveys conducted between 1991 and
1996 for the National Conservation Review, suggesting
that the species has become rare. It is an important
component of plywood, which is mainly used to make
tea chests.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 18515

Shorea conica
Dipterocarpaceae  CR A1cd, C2a
Indonesia (Sumatra)
This species is found on undulating land near the coast.
It is threatened by forest conversion and degradation.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea contorta
Dipterocarpaceae  CR A1cd
Philippines
Endemic to the Philippines, this large tree is found in the
ever-decreasing lowland seasonal semi-evergreen
dipterocarp forest. It is suffering from exploitation for
the light red meranti (or white lauan) timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea cordata
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Sarawak)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea cordifolia
Dipterocarpaceae  CR A1cd
Sri Lanka
A canopy species that is endemic to the remaining
fragments of lowland wet evergreen forest of Sri Lanka.
Signs of regeneration are meagre. This tree was not
found during the extensive forest surveys conducted
between 1991 and 1996 for the National Conservation
Review, suggesting that it is either extremely rare or
possibly extinct.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 19112

Shorea cuspidata
Dipterocarpaceae  EX
Malaysia (Sarawak)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea dasypylla
Dipterocarpaceae  EN A1cd
Indonesia (Sumatra), Malaysia (Sarawak)
This tree is found in lowland mixed dipterocarp forest
on well-drained land and is cut for light red meranti
timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea dealbata
Dipterocarpaceae  CR A1cd+2cd, C2a
Indonesia (Sumatra), Malaysia (Peninsular Malaysia,
Sarawak)
A tree that occurs locally on flat coastal swamps on
yellow sandy soils and on low hills. It is exploited for its
white meranti timber. The species also is found in forest
reserves.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857, 17140

Shorea dispar
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Sarawak)
An endemic tree of the threatened mixed dipterocarp
forests of Sarawak.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea disticha
Dipterocarpaceae  EN A1cd
Sri Lanka
A small tree with an extremely localised distribution in
areas of lowland wet evergreen forest. It is found in
Lenegal Kande Sinharaja Biosphere Reserve and has
previously been reported from Kanneliya and Gilimala.
The species is not of any economic importance because
of its small size and scarcity.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 18515

Shorea domatiosa
Dipterocarpaceae  EN A1cd, C2a
Brunei, Indonesia (Kalimantan), Malaysia (Sabah)
A tree occurring in lowland mixed dipterocarp forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea dyeri
Dipterocarpaceae  EN A1cd
Sri Lanka
A sizeable tree found scattered in the remnants of
lowland wet evergreen forest in the south-west corner of
Sri Lanka. It is of local value as a construction timber,
and occurs in some forest reserves.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195
Shorea elliptica
Dipterocarpaceae
Indonesia (Kalimantan), Malaysia (Sarawak)
Confined to the lowland mixed dipterocarp forests of north-western Kalimantan and western Sarawak, this tree is cut for red balau timber. Some populations occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea faguetiana
Dipterocarpaceae
Indonesia, Malaysia (Peninsular Malaysia, Sabah, Sarawak), Thailand
This tree is often found on well-drained clay soils on ridges and undulating land. The wood is utilised as yellow meranti timber. Populations have been found in forest reserves.
Assessor: Ashton, P.
Refs: 9169, 12937, 13857

Shorea falcata
Dipterocarpaceae
Viet Nam
Endemic to Viet Nam, this species may now be extinct.
Assessor: Ashton, P.
Refs: 13857

Shorea falcifera
Dipterocarpaceae
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
This lowland species cannot withstand logging because of its slow growth. Balau consignments are often made up of this species.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857, 18327

Shorea falciferoides
Dipterocarpaceae
Indonesia (Kalimantan), Philippines
A massive tree of mixed dipterocarp forest on clay soils, cut for balau timber. This slow growing species cannot reach reproductive maturity between logging cycles and is therefore threatened by logging activities.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea falciferoides ssp. falciferoides
Dipterocarpaceae
Philippines
This subspecies is restricted to the Philippines; it grows in mixed dipterocarp forest and is confined to ridges in permanently wet areas.
Assessor: Ashton, P.
Refs: 9501, 13857

Shorea falciferoides ssp. glaucescens
Dipterocarpaceae
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
This subspecies is restricted to Borneo, where it grows in mixed dipterocarp forest up to 600m.
Assessor: Ashton, P.
Refs: 9501, 13857

Shorea farinosa
Dipterocarpaceae
Malaysia? (Peninsular Malaysia?), Myanmar, Thailand
Assessor: Ashton, P.
Refs: 3998, 7673, 9169, 13857, 18243

Shorea flaviflora
Dipterocarpaceae
Brunei, Malaysia (Sabah)
Assessor: Ashton, P.
Refs: 13857, 18327

Shorea flammiflora
Dipterocarpaceae
Brunei, Malaysia (Sarawak)
A lowland tree locally distributed on deep yellow sandy soils and coastal hills. It is often cut for red meranti timber. The tree is slow-growing and directly threatened by logging because it cannot reach reproductive maturity within a cutting cycle. Populations are recorded from some forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea foraminifera
Dipterocarpaceae
Brunei
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea foxworthyi
Dipterocarpaceae
Indonesia (Kalimantan, Sumatra), Malaysia (Sabah, Sarawak), Thailand
A lofty tree that is a source of balau timber. Logging is a serious threat because the reproductive cycle of the species exceeds the present cutting cycle.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea gardneri
Dipterocarpaceae
Sri Lanka
A large tree confined to the remaining 700 km² of highland wet evergreen forest. It prefers deep well-drained soils. The timber is exploited for house building and bridge construction. It was not found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct.
Assessor: Ashton, P.
Refs: 13857, 15431, 19112

Shorea geniculata
Dipterocarpaceae
Brunei, Malaysia (Sarawak)
A large tree occurring in mixed dipterocarp forest on leached yellow soils. It is valued as the most solid balau timber in Brunei. Directly threatened by logging, trees do not reach reproductive maturity in the time between logging cycles. Populations of the species occur in some forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857
Shorea gibbosa
Dipterocarpaceae CR A1cd
Singapore
An emergent lowland tree that grows on deep clay-rich soils that is cut for its yellow meranti timber. The ililipe nuts are collected.
Assessor: Ashton, P.
Refs: 9199, 13857, 16104

Shorea glauca
Dipterocarpaceae EN A1cd
Indonesia (Sumatra), Malaysia, Thailand
A semi-gregarious species that is found on rocky hillsides and ridges. It is cut for balau timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea gratissima
Dipterocarpaceae EN A1cd, C2a
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sabah), Myanmar, Singapore, Thailand
A large tree found on well-drained soil in coastal areas, felled for white meranti timber. Populations of the species occur in some forest reserves.
Assessor: Ashton, P.
Refs: 3998, 7673, 9169, 9199, 13857

Shorea guiso
Dipterocarpaceae CR A1cd
Indonesia (Sumatra), Malaysia, Philippines, Thailand, Viet Nam
A lowland forest species from which red balau timber is harvested.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 19093

Shorea hemsleyerana ssp. grandiflora
Dipterocarpaceae CR A1cd, C2a
Indonesia (Kalimantan), Malaysia (Sarawak)
A localised subspecies found on shallow peat-swamp and on leached sandy soils. The species as a whole is protected for its ililipe nuts in Sarawak.
Assessor: Ashton, P.
Refs: 9169, 13857

Shorea hemsleyerana ssp. hemsleyerana
Dipterocarpaceae CR A1cd, C2a
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A species found on leached sandy soils and in shallow peat-swamp. In Sarawak trees are protected for the ililipe nuts.
Assessor: Ashton, P.
Refs: 7673, 13857

Shorea henryana
Dipterocarpaceae EN A1cd
Cambodia, Laos, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam
A tree of seasonal wet and dry evergreen forest. The hard, heavy timber is used for ship building and, in the past, the resin (damar) was tapped commercially. The species occurs in some forest reserves.
Assessor: Ashton, P.
Refs: 9169, 12937, 13857

Shorea hopeifolia
Dipterocarpaceae CR A1cd
Indonesia (Sumatra), Malaysia, Philippines
A large tree often found along streams on clay-rich soils, it is a source of yellow meranti timber.
Assessor: Ashton, P.
Refs: 2072, 7673, 9169, 13857

Shorea hypochra
Dipterocarpaceae CR A1cd
Cambodia, Malaysia (Peninsular Malaysia), Thailand, Viet Nam
This large tree is found in semi-evergreen and evergreen lowland dipterocarp forest. It produces a good-quality resin (damar temak), which, in the past, was tapped commercially. The wood is used as white meranti timber.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea hypoleuca
Dipterocarpaceae CR A1cd
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A slow-growing species of mixed dipterocarp forest, directly threatened by logging activities because trees do not reach reproductive maturity between the current logging cycles.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea ilasii
Dipterocarpaceae CR A1cd
Malaysia (Sarawak)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea inequilateralis
Dipterocarpaceae CR A1cd, C2a
Brunei, Malaysia (Sarawak)
A species of the dwindling mixed peat-swamp forests, which is threatened by logging for its valuable construction timber, semayur. It is unlikely to survive logging because trees are slow-growing and do not reach reproductive maturity within a logging cycle.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea inappendiculata
Dipterocarpaceae CR A1cd, C2a
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A tree found infrequently in lowland mixed dipterocarp forest on coastal hills. It is cut for balau timber but its slow growth does not allow it to reach maturity within the current logging cycle. Some populations are found in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea induplicata
Dipterocarpaceae CR A1cd, B1+2bde, C2a
Indonesia (Kalimantan), Malaysia (Sarawak)
A tree which occurs in the transitional forest between heath and mixed dipterocarp forest. Forest degradation and logging have brought the species close to extinction. Its slow growth makes it particularly vulnerable to the affects of continual logging.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857
Shorea isoptera
Dipterocarpaceae  CR A1cd, C2a
Brunei, Malaysia (Sabah, Sarawak)
A lowland tree which is particularly threatened by
logging operations because of its slow growth.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea johorensis
Dipterocarpaceae  CR A1cd
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular
Malaysia, Sabah, Sarawak)
A lofty tree that occurs locally on well-drained soils at
low altitude. It produces a high-grade light red meranti
timber and for this reason it is a priority plantation tree
in Indonesia.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea kuantanensis
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Peninsular Malaysia)
The one locality in Kuantan, where the species was
discovered, has now been converted into a plantation.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea kudatensis
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Sabah)
An endemic tree, which has suffered high rates of forest
conversion and degradation and may now be extinct.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea kunstleri
Dipterocarpaceae  CR A1cd
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular
Malaysia, Sabah, Sarawak)
A large tree specific to leached sandy clay soils, felled
for its valued red balau or red meranti timber. Some
populations of the species occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea ladiana
Dipterocarpaceae  CR A1cd, C2a
Brunei, Malaysia (Sabah)
Confined to the diminishing mixed dipterocarp forests of
north-west Borneo, this tree is directly threatened by
logging. Its slow growth and maturation rate make it
particularly vulnerable to continual cutting. Some
populations are found in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea lamellata
Dipterocarpaceae  CR A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A large tree that is found locally on ridges. The tree is
cut for white meranti timber and the wood is tapped for
its clear resin in Borneo.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea laxa
Dipterocarpaceae  CR A1cd
Brunei, Malaysia (Sabah)
Confined to coastal hills, the species occurs in mixed
dipterocarp forest of north-east Sarawak, Brunei and
south-east Sabah. It is exploited for its locally valuable
yellow meranti timber. Populations are recorded in
some forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea lepidota
Dipterocarpaceae  CR A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A tree that occurs in lowland dipterocarp forest. The
illope nuts are collected on a small scale and the timber
is used as light red meranti. The species occurs in some
forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 17140

Shorea leprosula
Dipterocarpaceae  EN A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia),
Singapore, Thailand
This species is still found, sometimes in forest reserves,
but it has suffered a massive population reduction
mainly because of the rates of exploitation of its light
red meranti timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 1999, 13857, 17140

Shorea leptoderma
Dipterocarpaceae  CR A1cd
Malaysia (Sabah)
A tree endemic to the lowland forests of Sabah.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea lissophylla
Dipterocarpaceae  CR A1cd, C2a
Sri Lanka
A small tree found in patches on shallow poor soil. It
regenerates prolifically. The species was found in 11 of
the forests surveyed for the National Conservation
Review.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 19112

Shorea longiflora
Dipterocarpaceae  CR A1cd, C2a
Brunei, Indonesia (Kalimantan), Malaysia (Sarawak)
A yellow meranti timber species, endemic to Borneo,
found scattered on shallow peat or yellow sandy soils.
Some populations of the species occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea longisperma
Dipterocarpaceae  CR A1cd, C2a
Brunei, Indonesia (Sumatra), Malaysia (Sarawak)
An enormous tree of the declining mixed dipterocarp
forests in Sumatra and northern Borneo. It is felled for
yellow meranti timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea lumutensis
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Peninsular Malaysia)
Limited in its range, this timber species occurs along the
coastal hills of the west coast of Peninsular Malaysia.
Some trees are also found in forest reserves in this area.

Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea lundensis
Dipterocarpaceae
Malaysia (Sarawak)
A tree confined to the diminishing mixed dipterocarp forests of Sarawak.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea macrantha
Dipterocarpaceae
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
This species occurs in the declining mixed peat-swamp forests. The tree is exploited for its light or dark red meranti timber and its edible ilili nuts.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 17140

Shorea macrobalanos
Dipterocarpaceae
Malaysia (Sarawak)
Endemic in Sarawak and eastern Kalimantan, this rare tree is found on clay-rich soils on hill ridges.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea macrophylla
Dipterocarpaceae
Malaysia (Sarawak)
This lowland tree is one of the fastest growing species of the genus. It is found frequently along rivers and in areas which are periodically inundated. The tree is cut for its light red meranti timber, but more importantly it is the major source of ilili nuts, which ensures its protection under Sarawak’s Wildlife Protection Bill (1990).
Assessor: Ashton, P.
Refs: 13857, 17214

Shorea macroptera ssp. baillonii
Dipterocarpaceae
Indonesia (Kalimantan), Malaysia (Sarawak)
Some populations of this tree occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea macroptera ssp. macroptera
Dipterocarpaceae
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore, Thailand
Assessor: Ashton, P.
Refs: 7673, 9169, 9199, 13857

Shorea macroptera ssp. macropterifolia
Dipterocarpaceae
Brunel, Malaysia (Sabah, Sarawak)
The species is recorded in some primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea macroptera ssp. sandakanensis
Dipterocarpaceae
Indonesia (Kalimantan), Malaysia (Sabah)
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea malibato
Dipterocarpaceae
Philippines
This species occurs in non-seasonal evergreen forest in the Philippines. It is now very nearly extinct because of habitat loss.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea materialis
Dipterocarpaceae
Brunel, Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
A tree of remaining patchy *kerangas* vegetation on podzols and sandstone cuestas. It is cut for balau timber. The population in Peninsular Malaysia has declined because of overexploitation.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857, 17140

Shorea maxima
Dipterocarpaceae
Malaysia (Peninsular Malaysia)
A relatively small tree that is scattered on hills and undulating land. The timber is used as yellow meranti, but its export has been banned.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea maxwelliana
Dipterocarpaceae
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
One of the main balau timber trees, occurring locally in some abundance on low ridges. Some trees are found in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea megistophylla
Dipterocarpaceae
Sri Lanka
An emergent tree, usually found by rivers and streams, confined to the remaining 1422 km² of lowland wet evergreen forest in Sri Lanka. Trees have been selectively logged in Sinharaja Biosphere Reserve. The species was not found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that it is either extremely rare or possibly extinct.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 19112

Shorea micans
Dipterocarpaceae
Malaysia (Sabah)
A lowland tree found growing over the ultrabasic rocks in Sabah, threatened mainly by forest conversion.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea montigenera
Dipterocarpaceae
Indonesia (Moluccas, Sulawesi)
A tree located in *S. selanica* hill forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857
Shorea mujangensis
Dipterocarpaceae  CR A1cd
Malaysia (Sarawak)
A magnificent yellow meranti timber species endemic to the fertile volcanic soils of the Hose Mountains in Sarawak.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea myironerva
Dipterocarpaceae  CR A1cd, C2a
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A tree that is found on moist hillsides and along rivers. It also found in some forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea negrosensis
Dipterocarpaceae  CR A1cd
Philippines
A large, often gregarious, tree that occurs in the remaining lowland seasonal and evergreen dipterocarp forest of the Philippines. The timber is used as red meranti.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea oblongifolia
Dipterocarpaceae  CR A1cd
Sri Lanka
This tree occurs mainly on hillsides and river banks in remaining fragments of lowland wet evergreen forests. Regeneration is somewhat sparse. Some populations occur in forest reserves.
Assessor: Ashton, P.
Refs: 12129, 13857, 15431, 17195

Shorea obvoidea
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Sarawak)
This tree is found only in the threatened mixed dipterocarp forests of western Sarawak.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea obscura
Dipterocarpaceae  CR A1cd
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
Populations of this species occur in some primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 13857, 15598

Shorea ochrophloia
Dipterocarpaceae  CR A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
A species, found locally on well-drained undulating lowlying ground. The timber is used as red meranti.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea ovalifolia
Dipterocarpaceae  CR A1cd, C2a
Sri Lanka
A dipterocarp, confined to the lowland and hill wet evergreen forests of south-east Sri Lanka, which is close to extinction because of the loss of its habitat. This tree was not found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 19112

Shorea ovalis ssp. ovalis
Dipterocarpaceae  EN A1cd
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah), Singapore
A widespread subspecies that is found in lowland mixed dipterocarp forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 9199, 13857

Shorea ovalis ssp. sarawakensis
Dipterocarpaceae  CR A1cd
Malaysia (Sabah, Sarawak)
Endemic to northern Borneo, this species is restricted to lowland mixed dipterocarp forest. Some populations are known to occur in primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea ovalis ssp. sericea
Dipterocarpaceae  CR A1cd
Indonesia (Sumatra), Malaysia, Philippines
This subspecies occurs in lowland mixed dipterocarp forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea ovata
Dipterocarpaceae  EN A1cd
Indonesia (Sumatra), Malaysia, Philippines
A widespread species which is cut for its dark red meranti timber. The tree occurs in some primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 13857

Shorea pachyphylla
Dipterocarpaceae  CR A1cd, C2a
Brunei, Malaysia (Sarawak)
A valuable dark red meranti timber species that is restricted to the highly threatened mixed peat-swamp forest, usually near the coast of north-west Borneo. It is particularly threatened by logging operations because it grows too slowly to reach reproductive maturity between cutting cycles.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea palembanica
Dipterocarpaceae  CR A1cd
Malaysia (Peninsular Malaysia, Sarawak)
This large tree is a riverine and freshwater swamp species, which is exploited for its red meranti timber. It is protected under Sarawak’s Wildlife Protection Bill (1990) as a major source of illipe nuts.
Assessor: Ashton, P.
Refs: 13857, 17140, 17214

Shorea pallescens
Dipterocarpaceae  CR A1cd, C2a
Sri Lanka
A dipterocarp restricted to the lowland wet evergreen forests of Kegalle and the South Peak Sanctuary. The species is unable to reach reproductive maturity between
the current cutting cycles. It was not found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that it is either extremely rare or possibly extinct.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 19112

Shorea pallidifolia
Dipterocarpaceae  CR A1cd, C2a
Indonesia (Kalimantan), Malaysia (Sarawak)
A tree of remaining fragments of heath forest in Sarawak. It is mainly threatened by habitat degradation. Some populations occur in forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea palosapip
Dipterocarpaceae  CR A1cd
Philippines
A large tree that is found throughout the Philippines on well-drained soils in what is left of the evergreen mixed dipterocarp forest. It is cut for its light red meranti timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea parvifolia ssp. parvifolia
Dipterocarpaceae  EN A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore, Thailand
The species is possibly the most common dipterocarp in Malesia. It is, however, heavily exploited as the main source of light red meranti timber in South East Asia.
Assessor: Ashton, P.
Refs: 7673, 9169, 9199, 13857

Shorea parvifolia ssp. velutina
Dipterocarpaceae  EN A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia)
The species is possibly the most common dipterocarp in Malesia. It is, however, heavily exploited as the main source of light red meranti timber in South East Asia. Some populations occur in primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea pauciflora
Dipterocarpaceae  EN A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore
An immense tree of lowland and hill forest on well-drained soils. The species is exploited for its valuable dark red meranti timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 9199, 13857

Shorea peltata
Dipterocarpaceae  CR A1cd, C2a
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia)
A tree of mixed dipterocarp forest.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857

Shorea platycarpa
Dipterocarpaceae  CR A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Singapore
A timber tree specific to mixed peat-swamp forest.
Assessor: Ashton, P.
Refs: 7673, 9199, 13857, 17140

Shorea platyclados
Dipterocarpaceae  EN A1cd
Indonesia (Sumatra)
A species found in hilly and mountainous areas on deep fertile soils. It produces a fine dark red meranti timber. Some populations are found in primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea polyandra
Dipterocarpaceae  CR A1cd
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
An immense tree, endemic to Borneo, where it is locally common on fertile clay-rich soil.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea polysperma
Dipterocarpaceae  CR A1cd
Philippines
A tree, endemic to the Philippines, which occurs in the remaining hill evergreen mixed dipterocarp forests. It is heavily exploited as the most important red meranti timber in the country. Populations are recorded in some forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea prasans
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Sarawak)
Confined to mixed dipterocarp forest in central Sarawak, this species is threatened by forest degradation.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea pubistyla
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Sarawak)
Some populations occur in primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

Shorea quadrinervis
Dipterocarpaceae  EN A1cd
Malaysia (Sabah, Sarawak)
Confined to north-west Borneo, this tree is one of the major sources of light red meranti timber.
Assessor: Ashton, P.
Refs: 13857, 16104

Shorea resinosa
Dipterocarpaceae  CR A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
A tree with a local distribution in mixed dipterocarp forest. The timber is used as a minor white meranti timber. The main threat to the species is forest conversion and degradation.
Assessor: Ashton, P.
Refs: 5550, 7673, 9169, 13857
**Shorea revoluta**
Dipterocarpaceae  CR A1cd, C2a
Brunei, Malaysia (Sabah, Sarawak)
A tree endemic to fragments of heath forest in northern Borneo.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea richetia**
Dipterocarpaceae  CR A1cd, C2a
Indonesia (Kalimantan), Malaysia (Sarawak)
This tree is endemic to the threatened mixed dipterocarp forests and heath forests of western Borneo. Some populations occur in primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea rotundifolia**
Dipterocarpaceae  CR A1cd
Malaysia (Sarawak)
Endemic to Sarawak, this tree is found in mixed dipterocarp forest.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea roxburghii**
Dipterocarpaceae  EN A1cd
Cambodia, India (Andhra Pradesh, Karnataka, Kerala, Tamil Nadu), Laos, Malaysia (Peninsular Malaysia), Myanmar, Thailand, Viet Nam
A widespread dipterocarp, unusual for its adaptation to withstand adverse climatic conditions and soil types. It occurs in dry evergreen or deciduous forest and bamboo forest, often on sandy soils. In India, there are healthy regenerating populations in the south. Some populations are recorded in forest reserves.
Assessor: Ashton, P.
Refs: 3998, 7673, 8483, 9169, 13857

**Shorea rubella**
Dipterocarpaceae  CR A1cd, C2a
Brunei, Malaysia (Sabah, Sarawak)
A species found on lowland coastal hills, sometimes within primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea rugosa**
Dipterocarpaceae  CR A1cd, C2a
Indonesia (Kalimantan)
A large tree of mixed dipterocarp and heath forest, that also occurs in some primary forest reserves. The timber is used as dark red meranti.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea sagittata**
Dipterocarpaceae  CR A1cd, C2a
Malaysia (Sabah, Sarawak)
Assessor: Ashton, P.
Refs: 7673, 13857

**Shorea selanica**
Dipterocarpaceae  CR A1cd
Indonesia (Moluccas)
Endemic to the south-west Moluccas, this large tree, often the dominant species, occurs in lowland forest. It is exploited for its valuable red meranti timber.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea seminis**
Dipterocarpaceae  CR A1cd
Malaysia (Sarawak), Philippines
A fairly large riverine tree, often occurring in patches in lowland areas. The tree provides balau timber and ililipe nuts, and is protected under the Sarawak's Wildlife Protection Bill (1990).
Assessor: Ashton, P.
Refs: 7673, 9169, 13857, 17214

**Shorea singkawang**
Dipterocarpaceae  CR A1cd
Indonesia (Sumatra), Malaysia (Peninsular Malaysia), Thailand
A dark red meranti timber species, usually found near lowland streams. The ililipe nuts are collected.
Assessor: Ashton, P.
Refs: 9501, 13857

**Shorea singkawang ssp. scabrosa**
Dipterocarpaceae  CR A1cd
Malaysia (Peninsular Malaysia)
This subspecies is restricted to coastal Pahang and Terengganu, where it grows in forest on low hills.
Assessor: Ashton, P.
Refs: 9501, 13857

**Shorea slootenii**
Dipterocarpaceae  CR A1cd, C2a
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
This species is found on coastal hills, and in some primary forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea smithiana**
Dipterocarpaceae  CR A1cd
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A large tree of lowland areas, threatened by rates of exploitation. It is the major source of light red meranti timber for north-east Borneo. Populations are found in some forest reserves.
Assessor: Ashton, P.
Refs: 7673, 9169, 13857

**Shorea splendidia**
Dipterocarpaceae  EN A1cd
Malaysia (Sarawak)
A relatively small dipterocarp which occurs in river forest. The tree provides a light red meranti timber and is the one of the main sources of ililipe nuts. It is afforded protection by Sarawak's Wildlife Protection Bill (1990).
Assessor: Ashton, P.
Refs: 13857, 17214

**Shorea stenoptera**
Dipterocarpaceae  EN A1cd
Malaysia (Sarawak)
This timber species, locally common in the patchy lowland heath forest, has been planted for its especially large ililipe nuts. This tree is protected under Sarawak's...
Wildlife Protection Bill (1990). Some populations also occur in primary forest reserves.

**Assessor:** Ashton, P.
**Refs:** 13857, 17214

<table>
<thead>
<tr>
<th>Species</th>
<th>Family</th>
<th>CR Code</th>
<th>Country/Location Description</th>
<th>Habitat/Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shorea stipularis</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd</td>
<td>Sri Lanka</td>
<td>This species was discovered in only 12 of the forests surveyed for the National Conservation Review.</td>
</tr>
<tr>
<td><strong>Shorea subcylindrica</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd, C2a</td>
<td>Malaysia (Sarawak)</td>
<td>A relatively small tree of mixed dipterocarp forest, threatened by the decline and degradation of its habitat.</td>
</tr>
<tr>
<td><strong>Shorea submontana</strong></td>
<td>Dipterocarpaceae</td>
<td>EN A1cd</td>
<td>Malaysia (Peninsular Malaysia)</td>
<td>A large dipterocarp that is locally abundant on high hills in Peninsular Malaysia. It is cut for balau timber.</td>
</tr>
<tr>
<td><strong>Shorea sumatrania</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd</td>
<td>Malaysia (Peninsular Malaysia), Thailand</td>
<td>This tree can be found along the banks of slow-flowing rivers. The population in south-east Peninsular Thailand appears to be extinct. It is exploited for its balau timber and the ilupe nuts are collected locally.</td>
</tr>
<tr>
<td><strong>Shorea superba</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd</td>
<td>Brunei, Malaysia (Sabah, Sarawak)</td>
<td>A species of mixed dipterocarp forest, which is the main source of balau timber for Sabah. Logging poses a severe threat because the trees are unable to reach reproductive maturity between cutting cycles. The species is known to occur in some primary forest reserves.</td>
</tr>
<tr>
<td><strong>Shorea symingtonii</strong></td>
<td>Dipterocarpaceae</td>
<td>CR A1cd</td>
<td>Malaysia (Sabah)</td>
<td>This tree is endemic to the mixed dipterocarp forests of Sabah, where it is threatened by habitat conversion and degradation. The species also occurs in some primary forest reserves.</td>
</tr>
<tr>
<td><strong>Shorea tenuiramulosa</strong></td>
<td>Dipterocarpaceae</td>
<td>CR C2a, D1</td>
<td>Malaysia (Sabah, Sarawak)</td>
<td>This tree appears to be confined to dry coastal ridges.</td>
</tr>
</tbody>
</table>

**Shorea teysmanniana**
Dipterocarpaceae
Brunei, Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sabah, Sarawak)
A tree of mixed peat-swamp forest, exploited for its light red meranti timber.

**Assessor:** Ashton, P.
**Refs:** 7673, 9169, 13857, 17140

**Shorea thorellii**
Dipterocarpaceae
Cambodia, Laos, Thailand, Viet Nam

**Assessor:** Ashton, P.
**Refs:** 9169, 12937, 13857

**Shorea trapezifolia**
Dipterocarpaceae
Sri Lanka
This tree is found in fragments of lowland and sometimes highland wet evergreen forest, usually on deep soils. Most of the habitat has been converted into plantations, resulting in the species becoming localised. It forms one of the dominant components of the canopy in the protected area at Sinharaja. Regeneration is good. It is harvested mainly for plywood. No populations were found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct.

**Assessor:** Ashton, P.
**Refs:** 13857, 15431, 17195, 18515, 19112

**Shorea tumbuggaia**
Dipterocarpaceae
India (Andhra Pradesh, Tamil Nadu)
A small tree which occurs gregariously on slopes and peaks in dry savanna forest and dry mixed deciduous forest. The habitat is threatened with conversion to agriculture. The wood is used for construction.

**Assessor:** Ashton, P.
**Refs:** 13857

**Shorea uliginosa**
Dipterocarpaceae
Indonesia (Kalimantan, Sumatra), Malaysia (Peninsular Malaysia, Sarawak)
Locally abundant in mixed peat-swamp forest, this species is cut for its dark red meranti timber.

**Assessor:** Ashton, P.
**Refs:** 7673, 9169, 13857, 17140

**Shorea waltoni**
Dipterocarpaceae
Malaysia (Sabah)
This tree grows on well-drained ground in the lowlands and is found in some primary forest reserves.

**Assessor:** Ashton, P.
**Refs:** 7673, 9169, 13857

**Shorea worthingtonii**
Dipterocarpaceae
Sri Lanka
Isolated patches of this species are found scattered on well-drained soil in remaining lowland wet evergreen forests. Regeneration is poor. The species forms a dominant component in the canopy in the protected area at Sinharaja. It was not found during the extensive forest surveys conducted between 1991 and 1996 for the...
National Conservation Review, suggesting that the species is extremely rare.

**Assessor:** Ashton, P.
**Refs:** 13857, 15431, 17195, 18515, 19112

**Shorea xanthophylla**
Dipterocarpaceae
CR A1cd, B1+2c
Brunei, Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)
A tree that is found in mixed dipterocarp forest on hills in northern Borneo. The wood is used as yellow meranti timber. The species also occurs in some forest reserves.

**Assessor:** Ashton, P.
**Refs:** 7673, 9169, 13857

**Shorea zeylanica**
Dipterocarpaceae
CR A1cd, C2a
Sri Lanka
A tree occurring in wet evergreen forest which becomes an emergent at higher altitudes. The wood is used in construction work. It was not discovered during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct.

**Assessor:** Ashton, P.
**Refs:** 13857, 15431, 17195, 19112

**Sibangea pleioneura**
Euphorbiaceae
VU B1+2c
Tanzania
The East African member of this small tropical African genus. It is endemic to the North Udzungwa Mountains where it is found in moist evergreen forest at medium elevations.

**Assessor:** Lovett, J. & G.P. Clarke
**Refs:** 3356, 10961, 11631

**Sideroxylon acutum**
Sapotaceae
VU B1+2c
Cuba
Related to *S. angustatum*, this species is also confined to Oriente Province.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

**Sideroxylon altamiranoi**
Sapotaceae
VU B1+2c
Mexico (Hidalgo, Querétaro)
Confined to Hidalgo and Querétaro States, the species has been recorded only a few times in montane forest and *matorral*, from the lower limit of the pine-juniper belt.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

**Sideroxylon angustatum**
Sapotaceae
EN B1+2c
Cuba
A shrub or small tree of dry thickets, apparently restricted to the serpentine plateau of Sierra de Nipe between 300 and 500m. So far it has been collected just three times. Some taxonomic confusion exists.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 7980, 8816, 19149

**Sideroxylon anomalum**
Sapotaceae
VU D2
Dominican Republic
A species known only from the site where it was first collected in Barahona at about 700m.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

**Sideroxylon bullatum**
Sapotaceae
VU B1+2c
Jamaica
Confined to Portland, the species is found in wet areas of woodland on limestone, e.g. above Ecclesdown. The habitat has declined and continues to be threatened.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 401, 3932, 5653, 7980

**Sideroxylon capirí ssp. capirí**
Sapotaceae
LR/nt
Mexico (Guerrero, Jalisco, Sinaloa)
This small tree occurs over an area extending from Sinaloa to Guerrero, restricted to deciduous and semi-deciduous forest, frequently on igneous rock.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

**Sideroxylon curtisianum**
Sapotaceae
LR/nt
Mexico (Guerrero, Jalisco, Sinaloa)
This small tree occurs over an area extending from Sinaloa to Guerrero, restricted to deciduous and semi-deciduous forest, frequently on igneous rock.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

**Sideroxylon conferatum**
Sapotaceae
VU B1+2c
Cuba
Not a well-known species, it is confined to the provinces of Oriente and Pinar del Río, where it occurs in forest by mangroves and also in dry *matacales* up to 900m. Overexploited for its timber has caused population decline. Overcutting and clearing are constant threats to the habitat.

**Assessor:** Areces-Mallea, A.E.
**Refs:** 7980, 8816, 19149

**Sideroxylon contrerasii**
Sapotaceae
LR/nt
Costa Rica, Guatemala, Mexico (Hidalgo, Oaxaca, Veracruz), Panama
A rainforest species of lowland to medium elevation, scattered sparsely over a relatively wide range. Populations occur on the Atlantic slopes of Mexico, Guatemala and Costa Rica and more recently it has been collected from Cerro Jefe in Panama.

**Assessor:** World Conservation Monitoring Centre
**Refs:** 7980, 8816

**Sideroxylon discolor**
Sapotaceae
VU D2
Yemen (Socotra)
Formerly known under a small genus *Spiniluma*, the species is confined to the Haggier Mountains, from where it has been collected twice. It occurs in moist
seasonal woodland within a restricted range below 1000m. There are no immediate threats to the area. More fieldwork is needed to estimate population numbers.
Assessor: Miller, A.G.
Refs: 2354, 19083

*Sideroxylon dominicanum*
Sapotaceae  
VU B1+2c, D2  
Dominican Republic
A small treelet recorded, up to now, only twice from forest on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Sideroxylon durifolium*
Sapotaceae  
VU B1+2c  
Belize
A small tree which appears to be confined to the Jacinto Hills in Belize, although a specimen collected in Chiapas in Mexico could possibly be the same species.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Sideroxylon eucoriaceum*
Sapotaceae  
VU B1+2c  
Guatemala, Mexico (Veracruz)
Known only from a few collections, the species is recorded from lowland rainforest in Niño Perdido and Baja Verapaz in Guatemala and from submontane secondary forest in the Apatlánco area in Veracruz.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Sideroxylon excavatum*
Sapotaceae  
EN B1+2c  
Mexico (Guerrero, Oaxaca)
A newly described species of arid thorn forest or oak forest on calcareous soil between 1600 and 2000m. It is known only from small populations in the Chilpancingo area in Guerrero and south of San Marcos Arteaga in Oaxaca.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Sideroxylon fimbriatum*
Sapotaceae  
VU D2  
Yemen (Socotra)
Collected only a few times, the species has a very scattered distribution in moist woodland on limestone and granite hills. The populations are under no immediate threat.
Assessor: Miller, A.G.
Refs: 19083

*Sideroxylon floribundum ssp. belizense*
Sapotaceae  
VU A1c  
Belize, Guatemala
A rainforest species, confined to lowland limestone sites in Izabal and Petén, in Guatemala, and to Toledo in Belize. The type subspecies is confined to Jamaica.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Sideroxylon floribundum ssp. floribundum*
Sapotaceae  
VU B1+2c  
Jamaica
A taxon endemic to the central parishes of Jamaica, where it occurs within restricted areas of forest between 600 and 760m.
Assessor: Kelly, D.L.
Refs: 6057, 7980, 19085

*Sideroxylon hirtiantherum*
Sapotaceae  
VU B1+2c, D2  
Guatemala
This species is known from a single locality at La Cumbre, Petén, where it is confined to lowland rainforest dominated by *Manilkara zapota*.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Sideroxylon ibaruae*
Sapotaceae  
VU B1+2c, D2  
Guatemala
Confined to lowland rainforest, this species has been collected only a few times from its range in Baja Verapaz.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 8816

*Sideroxylon inermes ssp. cryptophlebia*
Sapotaceae  
VU D2  
Seychelles (Aldabra)
A frequent constituent of mixed scrub on most of the islands in Aldabra, Assumption, Cosmoloedo and Astove. Trees are frequently infested by wolly coccids. They also provide fruit for the blue pigeon. The islands of Aldabra are protected within a Strict Nature Reserve. Strip-mining for phosphate or guano has taken place on Assumption and areas of Cosmoloedo and Astove have been cleared and planted with coconuts and *Casuarina*. The species is found on the African mainland.
Assessor: World Conservation Monitoring Centre
Refs: 19027

*Sideroxylon jubilla*
Sapotaceae  
VU B1+2c  
Cuba
A valuable timber tree, up to 30m tall, fairly widespread in the humid mountainous areas of eastern Cuba, where it grows in submontane and montane rainforest and seasonal evergreen forest. Population numbers continue to decline because of overcutting.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 8816, 19149

*Sideroxylon mermulana*
Sapotaceae  
VU C2a  
Cape Verde, Portugal (Madeira), Spain (Canary Is.)
The species is commonly known under the epithet *marmulana* and may possibly be divided into different varieties on different island groups, particularly the Cape Verde populations. It occurs in lowland dry forest and xerophytic scrub. On the Canary Islands and Madeira the populations have become small and fragmented, and are under great pressure from grazing, burning and habitat conversion. The species is covered by regional legislation and occurs within protected areas.
Assessor: Baháres, A. et al.
Refs: 1512, 16500, 19022, 19131

*Sideroxylon montanum*
Sapotaceae  
LR/int  
Jamaica
The species occurs over a wide range of altitudes and soil types in the Blue Mountains. It is especially...
common on the Grand Ridge and on steep, sometimes unstable, slopes. At lower elevations there has been logging. 

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 12564

**Sideroxylon octosepalum**  
*Sapotaceae*  
Jamaica  
An uncommon species occurring in the central parishes on well-drained rocky limestone.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Sideroxylon peninsulare**  
*Sapotaceae*  
Mexico (Baja California Sur)  
A small tree or shrub, which is confined to two sites along stream beds and gullies in the southern tip of Baja California.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Sideroxylon persimilis ssp. subsessiliflorum**  
*Sapotaceae*  
Mexico (Chihuahua, Colima, Durango, Jalisco, Sinaloa)  
This is the more localised subspecies of a widely occurring Central American tree. Populations are found along watercourses in dwarf deciduous forest up to 1200 m, covering a range from Chihuahua to Jalisco and Colima.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Sideroxylon retinerve**  
*Sapotaceae*  
Honduras  
A small tree, confined to an area of submontane pine-oak woodland and rocky thickets in central Honduras.  
**Assessor:** Nelson, C.  
**Refs:** 7980, 8816, 13995

**Sideroxylon rotundifolium**  
*Sapotaceae*  
Jamaica  
This species is actually quite common where it occurs in areas of woodland and thicket on limestone in central and western parishes.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

**Sideroxylon rubiginosum**  
*Sapotaceae*  
Dominican Republic  
A very poorly known species. The type and only collection was taken from a hilltop in Santo Domingo in the early part of the century. It has not been recorded since.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Sideroxylon socorensis**  
*Sapotaceae*  
Mexico (Revilla Gigedo Is)  
A tree known only from Socorro Island and the Revilla Gigedo Islands in humid forest up to 900 m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Sideroxylon stevensoni**  
*Sapotaceae*  
Belize, Guatemala  
This species is restricted to Petén in Guatemala and adjacent Belize. It is found in lowland rainforest dominated by *Manilkara zapota*, ascending to medium elevations.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 8816

**Simira wurdackii**  
*Rubiaceae*  
Peru  
Known only from the type collection, the species occurs in Amazon forest in the department of Loreto.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Sindora beccariana**  
*Leguminosae*  
Indonesia (Kalimantan), Malaysia (Sabah, Sarawak)  
Scattered in lowland dipterocarp forest, this uncommon species, as well as others in the genus, may be seriously threatened by large-scale exploitation of forest.  
**Assessor:** Asian Regional Workshop  
**Refs:** 662, 1766, 12937, 14573

**Sindora inermis**  
*Leguminosae*  
Indonesia (Sumatra), Philippines  
The timber of this lowland forest species is used as sepetir. The supply is very limited.  
**Assessor:** Asian Regional Workshop  
**Refs:** 2072, 4919, 12937, 14573

**Sindora javanica**  
*Leguminosae*  
Indonesia (Java)  
A rare tree restricted to the lowland forests of Preanger and Banjumas.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 12937, 14573

**Sindora supa**  
*Leguminosae*  
Philippines  
The timber of this species, found in Luzon and Mindoro, is locally important and the wood-oil also has a variety of uses.  
**Assessor:** Asian Regional Workshop  
**Refs:** 4919, 12888, 14573

**Sindora tonkinensis**  
*Leguminosae*  
Cambodia, Viet Nam  
A slow-growing tree, sparsely but widely distributed in remaining areas of primary and slightly disturbed forest. In Viet Nam, the species produces one of the best woods in the country and is becoming increasingly scarce.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 848, 12563

**Sinojackia dolichocarpa**  
*Styracaceae*  
China (Hunan)  
A relatively newly discovered species, known only from populations on Huping Mountain and Tienping Mountain, where it occurs in forest areas between 400 and 800 m. The former location is designated a nature
Sinojackia xylocarpa
Styracaceae VU B1+2ce, D2
China (Jiangsu)
A dwarf tree restricted to a few localities close to Nanjing. It occurs on hillsides below 400m. Although some populations appear to be protected, trees are still susceptible to being cut for firewood.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Sinoradikafera minor
Sapindaceae VU D2
Viet Nam
A small tree or shrub which appears to be endemic to Vo Xa, Nam Ha Province, in northern Viet Nam.
Assessor: World Conservation Monitoring Centre
Refs: 848

Sinowilsonia henryi
Hamamelidaceae LR/nt
China (Gansu, Henan, Hubei, Shaanxi, Sichuan)
Confined to central China, the species occurs in mixed forest on mountain slopes and river banks between 1100 and 1600m. One population is believed to be protected in Taibai Shan Nature Reserve. Elsewhere the species appears to be suffering from habitat degradation and declines. It is the only species in the genus.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

Siparuna eggersii
Monimiaceae VU B1+2c
Ecuador
An endemic tree of Ecuador, inhabiting forest between 60m and 2650m in Bolivar Province.
Assessor: World Conservation Monitoring Centre
Refs: 19119, 19120

Siphoneugenia densiflora
Myrtaceae VU B1+2acd
Brazil
Assessor: Barroso, G.M.
Refs: 19097, 19098

Siphoneugenia occidentalis
Myrtaceae VU B1+2ac
Argentina (Jujuy, Salta), Bolivia
Endemic to the piedmont forest of north-west Argentina and Bolivia, the species is confined to an unprotected ecosystem which is being rapidly replaced by agricultural systems.
Assessor: Prado, D.
Refs: 19122

Siphoneugenia widgreniana
Myrtaceae VU B1+2acd
Brazil
Assessor: Barroso, G.M.
Refs: 19097, 19098

Sloanea acutiflora
Elaeocarpaceae VU D2
Suriname
An upland rainforest tree, locally abundant in places. It is endemic to Brownsberg and the Tapanahony River.
Assessor: World Conservation Monitoring Centre
Refs: 19196

Sloanea gracilis
Elaeocarpaceae VU D2
New Caledonia
This species has been collected only rarely, perhaps twice. It occurs in dense rainforest in Oua Némi and Mé Oué in the north of Grand Terre.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Sloanea shankii
Elaeocarpaceae CR C2a
Honduras
A rarely collected species of lowland moist forest.
Assessor: Nelson, C.
Refs: 13995

Sloanea suaveolens
Elaeocarpaceae VU D1
New Caledonia
A species which appears to be known from a single location on Mont Tonine, where it occurs in dense forest on schist substrate between 800 and 1000m.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

Solanum betaceum
Solanaceae DD
Argentina? (Jujuy?, Tucumán?), Bolivia?
The native range of the tamarillo tree is not resolved. It is often thought extinct. Putative wild populations are small, occurring in restricted areas in Argentina and Bolivia. It is widely cultivated in the Andes, Europe, Africa and New Zealand. Wild representatives are important for the genetic improvement and understanding of cultivated forms.
Assessor: World Conservation Monitoring Centre
Refs: 11906, 16093, 17611

Solanum bullatum
Solanaceae LR/-directory
Brazil (Bahia, Minas Gerais, Paraná, Rio de Janeiro, Santa Catarina, São Paulo)
A relatively widely ranging species of Atlantic coastal forest.
Assessor: Carvalho, L.d'A.F.
Refs: 19098, 19103

Solanum cajanumense
Solanaceae LR/nt
Colombia, Ecuador, Peru
A small tree of Andean forest, occurring especially on the western slopes, between 1500 and 3000m, from Colombia to northern Peru. The habitat is seriously threatened by encroaching agriculture and fires. The

Species Summaries
fruits are sweet and edible and are now being cultivated in New Zealand as a possible commercial fruit crop. 
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 11906, 17611

**Solanum cinnamomeum**

Solanaceae

Brazil (Minas Gerais, Rio de Janeiro, São Paulo)
The species appears to occur in isolated populations, including some in protected areas.
Assessor: Carvalho, L.d'A.F.
Refs: 19098, 19103

**Solanum ciri-ciratum ssp. ramosa**

Solanaceae

Colombia
Ranging relatively widely, the subspecies occurs in rainforest and cloud forest, in the valleys of Magdalena, Cauca and Patía Rivers. It is geographically isolated from the more widespread type species.
Assessor: Calderon, E.
Refs: 7980, 9880, 11906, 17611, 19069

**Solanum corymbiflora ssp. mortoniana**

Solanaceae

Brazil (Paraná, Santa Catarina)
Two localities are known, one in Paraná, south-east of Curitiba, and one around São Joaquim. It occurs within an area of 10,000 km², in clearings, thickets and waste places in the dwarf montane forest.
Assessor: World Conservation Monitoring Centre
Refs: 9880, 11906, 17611

**Solanum diplacenos**

Solanaceae

Brazil (Minas Gerais, Paraná, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, São Paulo)
This species has long been known under the name Cyphomandra fragrans. It is found in clearings and forest edges in Atlantic coastal rainforest and Araucaria forest, both of which have suffered heavy declines over the past centuries. The fruit are edible and are being tried in New Zealand as a potential commercial crop.
Assessor: World Conservation Monitoring Centre
Refs: 9880, 11906, 17611

**Solanum diversifolium ssp. diversifolium**

Solanaceae

Venezuela
Distributed in a restricted area of coastal Venezuela, this small tree colonises disturbed areas and light gaps in cloud forest over 500m.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 17611

**Solanum drymophilum**

Solanaceae

Puerto Rico
A spiny shrub or tree up to 10ft. It occurs in thickets at the edge of pastureland, where it is vulnerable to cutting, burning and development. A total of between 50 and 150 individuals are known from a single site. If allowed to, it has the potential to become a weed in disturbed areas.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124, 17540

**Solanum exiguum**

Solanaceae

Bolivia
A diminutive tree or shrub restricted to the valleys of Río Beni and Río Chapare, where it is uncommon.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 11906, 17611

**Solanum fallax**

Solanaceae

Colombia, Ecuador
An unusual species restricted to ravines and forest pockets in Jaunche forest in western Ecuador. It endures a more severe dry season than other species in this section of the genus. 
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 11906, 17611

**Solanum fortunei**

Solanaceae

Costa Rica, Panama
Panama may contain the only extant populations of this rare species. The taxon is restricted to montane or cloud forest between 900 and 1800m. Further fieldwork may indicate that a more serious threat category is appropriate.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 11906, 17611

**Solanum granulosum-leprosum**

Solanaceae

Brazil (Minas Gerais, Rio de Janeiro, São Paulo)
Assessor: Carvalho, L.d'A.F.
Refs: 19098, 19103

**Solanum inaequale**

Solanaceae

Brazil (Mato Grosso do Sul, Minas Gerais, Paraná, Rio de Janeiro, Santa Catarina, São Paulo)
A widespread species of montane forest.
Assessor: Carvalho, L.d'A.F.
Refs: 7980, 19109, 19103

**Solanum latiflorum**

Solanaceae

Brazil (Minas Gerais, Rio de Janeiro, São Paulo)
Quite well collected and widespread, this small tree is confined to the remaining areas of Atlantic coastal rainforest in the south-east of Brazil. This habitat has suffered large-scale destruction over the past centuries. 
Assessor: World Conservation Monitoring Centre
Refs: 9880, 17611

**Solanum leucocodon**

Solanaceae

Brazil (Minas Gerais, Rio de Janeiro)
Assessor: Carvalho, L.d'A.F.
Refs: 19103

**Solanum melissarum**

Solanaceae

Brazil (Bahia, Espírito Santo, Minas Gerais, Pará, Paraná, Rio de Janeiro, Santa Catarina, São Paulo)
A relatively widespread species of primary or secondary forest, often in Araucaria groves, on the Atlantic coast. Declines in this habitat have been dramatic.
Assessor: World Conservation Monitoring Centre
Refs: 9880, 17611

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Solanum ovum-fringillae
Solanaceae  CR B1+2c
Brazil (Pernambuco)
A small shrub or herb which may be extinct in the wild. Collections, the last of which was gathered in 1933, originate from coastal *restinga vegetation in Pernambuco and *caatinga of Bahia. This is the only species in this section of the genus to be found in *caatinga.
Assessor: Bohs, L.
Refs: 9880, 11906, 17611

Solanum paratum
Solanaceae  EN A1c
Brazil (Bahia, Rio de Janeiro, São Paulo)
An unusual species which is morphologically specialised to survive in *restinga vegetation along seashores. It is known from four collections, none more recent than 1971, from isolated localities on the south-east coast, where the loss of this habitat continues to be dramatic.
Assessor: World Conservation Monitoring Centre
Refs: 9880, 17611

Solanum pinetorum
Solanaceae  LR/nt
Brazil (Minas Gerais, Paraná, Rio de Janeiro, Santa Catarina, São Paulo)
The northern populations in Minas Gerais, Rio de Janeiro and São Paulo are separated from those in the south by 250km (and by morphologically different leaves and corolla). The species occurs in secondary vegetation and disturbed areas in primary forest, coastal cloud forest and Araucaria forest. Destruction of these forests has been extensive.
Assessor: World Conservation Monitoring Centre
Refs: 9880, 11906, 17611

Solanum roseum
Solanaceae  VU B1+2c
Bolivia
A cloud forest species which is restricted to a small area in the department of La Paz, although it may appear in southern Peru. Habitat degradation has been caused by the expansion of agriculture and fires. This is one of the closest relatives to the tamarillo tree.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 11906, 17611

Solanum sibundoyense
Solanaceae  VU D2
Colombia
A small cloud forest tree endemic to Sibundoy and surrounding areas, where it occurs between 1400 and 2300m. It produces some of the largest fruit in this section of the genus (which also contains the tamarillo) and would be a good candidate for trial as a commercial fruit despite its restriction to such a specialised habitat type.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 11906, 17611

Solanum sycocarpum
Solanaceae  EN A1c
Brazil (Bahia, Espirito Santo, Rio de Janeiro)
An unusual succulent species, which has become specialised and is restricted to *restinga vegetation on seashores. It ranges over about 1000km of the southern Brazilian coast, where this habitat is seriously threatened and continues to decline.
Assessor: World Conservation Monitoring Centre
Refs: 9880, 9880, 11906, 17611

Solanum tobagense
Solanaceae  LR/nt
Guyana, Trinidad and Tobago, Venezuela
In the Guyana Highlands the species exists in two populations on either side of the Orinoco Delta. Some differentiation has evidently arisen between the populations but both are restricted to primary forest over 400m or cloud forest.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 9880, 11906, 17611

Sonneratia hainanensis
Lythraceae  CR D1
China (Guangdong - Hainan)
Only five specimens are known to exist, confined to mangrove forest in Wenchang County, Hainan. The species is adapted to immersion in salty water and periodic drought. The seeds produced are minute and, although numerous, signs of regeneration are lacking.
Assessor: World Conservation Monitoring Centre
Refs: 1811, 11725, 11847

Sophora fernandeziana
Leguminosae  VU D2
Chile (Juan Fernández Is)
Preliminary data indicate the species is confined to less than 100km². More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 7980, 14140

Sophora mangarevaensis
Leguminosae  EN B1+2c
French Polynesia (Tuamotu Is.)
Endemic to Mangareva.
Assessor: Florence, J.
Refs: 14513

Sophora masafuerana
Leguminosae  VU D2
Chile (Juan Fernández Is)
Preliminary data indicate the species is confined to less than 100km². More detailed information on the species should become available to confirm this evaluation. The islands are designated as a national park and biosphere reserve and work is being carried out by *CONAF to save the native plants.
Assessor: World Conservation Monitoring Centre
Refs: 3241, 5651, 7980, 14140

Sophora raivavaensis
Leguminosae  EN B1+2c
French Polynesia (Tubuai Is.)
An endemic to Raivavae.
Assessor: Florence, J.
Refs: 14513

Species Summaries
**Sophora rapensis**
Leguminosae  
French Polynesia (Tubuai Is.)
Assessor: Florence, J.
Refs: 14513

**Sophora saxicola**
Leguminosae  
Jamaica
A rare and localised species, occurring on limestone cliffs and ledges in Trelawny. A single tree is recorded on Mango Tree Hill, near Spring Garden, in low disturbed woodland.
Assessor: Kelly, D.L.
Refs: 5653, 19085

**Sophora toromiro**
Leguminosae  
Chile (Easter Is)
A shrub or small tree. The last wild specimen was a plant in Rano Kao in 1935. A few plants still exist in cultivation in botanic gardens but attempts at reintroduction of the species on Easter Island have failed.
Assessor: World Conservation Monitoring Centre
Refs: 7599, 7980, 15251

**Sophora wightii**
Leguminosae  
India (Tamil Nadu)
Known only from the type collection, the species is located in the north of the Nilgiris, occurring in montane forest between 1350 and 2000m.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Sorbus amabilis**
Rosaceae  
China (Anhui, Fujian, Zhejiang)
A species occurring in small localised colonies in the margins or gaps of montane forest on Huangshan and Qingliang Mountain in southern Anhui, Lin'an and Longquan Counties in Zhejiang and Chong'an County in Fujian. Some of these areas are designated nature reserves. The degree of protection given to populations is however, largely unknown and the habitat continues to be cleared in places.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11647

**Sorbus anglica**
Rosaceae  
Ireland, United Kingdom (Great Britain)
A shrub or small tree occurring locally in small populations, usually on Carboniferous limestone, on the edges of woodland or in scrub in Devon, north Somerset, the Avon Gorge, Wye Valley, Shropshire, Brecon, Montgomery, Denbigh and Kerry. The total population numbers about 600 individuals, the largest subpopulation being on Eglwyseg Mountain in Denbigh. The species is well protected in a number of nature reserves and Sites of Special Scientific Interest. Subpopulations have been noted to show some variability despite the species being an apomict. It is the product of a cross between *S. aucuparia* and *S. ripicola*.
Assessor: Wigginton, M.J.
Refs: 7222, 7801, 15608, 19148

**Sorbus arranensis**
Rosaceae  
United Kingdom (Great Britain)
Scattered trees are confined to small remnants of woodland, mostly on inaccessible steep slopes, on very acidic soils in northern Arran. About 500 plants remain in the two known sites, most of the population being in Glen Diomhain Nature Reserve. Regeneration is believed to be insufficient for recruitment and grazing deer and sheep contribute to this failing. The species is apomictic and a fully fertile hybrid of *S. aucuparia* and *S. ripicola*.
Assessor: Wigginton, M.J.
Refs: 7222, 7801, 19148

**Sorbus austriaca ssp. croatica**
Rosaceae  
Croatia
A Croatian endemic, restricted to Velebit Mountain, found growing in montane and alpine open dry forest. It is a slow-growing, xerophytic, heliophytic tree. The species range is almost entirely within a nature reserve and is not considered to be of conservation concern.
Assessor: Nikolic, T.
Refs: 7222, 15608, 19070

**Sorbus badensis**
Rosaceae  
Germany
Endemic to the states of Bayern and Baden-Württemberg in southern Germany, this small tree or shrub occurs in woodlands and scrub on upland slopes. It is an apomictic species of the *S. latifolia* complex, originating from a cross between *S. graeca* and *S. terminalis*.
Assessor: Schmidt, P.A.
Refs: 1719, 7222, 15608

**Sorbus bristoliensis**
Rosaceae  
United Kingdom (Great Britain)
Endemic to the Avon Gorge, both the Somerset and Gloucestershire sides, the species occurs on Carboniferous limestone in woodland and scrub. A population of about 100 plants exists and is increasing in number. The species is apomictic and the product of hybridisation between *S. ripicola* and *S. terminalis*.
Assessor: Wigginton, M.J.
Refs: 7222, 7801, 19148

**Sorbus decipiens**
Rosaceae  
Germany
An apomictic species of the *S. latifolia* complex, arising from a cross between *S. aria* and *S. terminalis*. It is confined to submontane open woodland on one limestone hill in Burgberg, Thuringia State. At the beginning of the 19th century about 100 individuals were counted, but now only 50 individuals remain within an area of less than 100km².
Assessor: Schmidt, P.A.
Refs: 1719

**Sorbus eminens**
Rosaceae  
United Kingdom (Great Britain)
A woodland tree, occurring very locally on Carboniferous limestone in the Wye Valley, the Avon Gorge, other locations in Somerset, and also in Bangor in North Wales, a population which was formerly placed
under S. portrigensiformis. About 250 trees exist in total, the majority of which are in the Avon Gorge, where they are under some degree of protection and constructive management. The species is apomictic. There appears to be significant variation between populations and further studies are required to elucidate their exact origins.

**Sorbus franconica**

Rosaceae  
VU D2  
Germany

A small tree or shrub, occurring in beech forest, pine plantation on limestone and at forest edges in three small areas in the state of Bayern, northern Bavaria. The species, an apomictic member of the S. latifolia complex, is thought to have originated from a hybridisation event between S. pannonica or S. aria and S. terminalis.

**Assessor:** Schmidt, P.A.

**Refs:** 1719, 7222, 15608

**Sorbus heiligenensis**

Rosaceae  
VU D2  
Germany

Confined to the limestone area between the villages of Heiligen and Reinstädt in the state of Thuringia, this large tree has an extent of occurrence of less than 100km². It is an apomictic species of the S. latifolia complex, originating from a cross between S. aria and S. terminalis.

**Assessor:** Schmidt, P.A.

**Refs:** 1719, 7222, 15608

**Sorbus lancastriensis**

Rosaceae  
LR/nt  
United Kingdom (Great Britain)

A small tree of open woodland or woodland edges, occurring on Carboniferous limestone in a number of sites within a 30km radius of Morecambe Bay. Most sites are protected or inaccessible. The species is apomict, originating from a cross between S. aria and S. rupicola.

**Assessor:** Wigginton, M.J.

**Refs:** 7222, 7801, 19148

**Sorbus leptophylla**

Rosaceae  
CR D1  
United Kingdom (Great Britain)

A sprawling tree known only from populations on shady crags of Carboniferous limestone at two sites in Breconshire, both of which are given some form of protection. The population is stable and inaccessible to grazing animals. The latest count uncovered 44 trees. A small population of very similar trees is found at Craig Breiddden in Montgomery. Further studies are needed to consolidate whether it belongs to this species.

**Assessor:** Wigginton, M.J.

**Refs:** 7222, 7801, 19148

**Sorbus leyana**

Rosaceae  
CR D1  
United Kingdom (Great Britain)

About 20 trees are known in total from two sites on Carboniferous limestone cliffs in southern Breconshire. Both locations are given limited protection as Sites of Special Scientific Interest and a small number of plants raised from seed have been incorporated into the population. Quarrying has destroyed some of the former sites. The species is an apomictic product of a cross between S. aucuparia and S. rupicola.

**Assessor:** Wigginton, M.J.

**Refs:** 7222, 7801, 19148

**Sorbus maderensis**

Rosaceae  
CR D1  
Portugal (Madeira)

Endemic to Madeira, the species is reduced to a single population of about 30 trees in a small area of montane woodland at 1500m. Recent grazing control has helped to improve the prospects of regeneration. There are still potential threats from burning and collectors.

**Assessor:** World Conservation Monitoring Centre

**Refs:** 16500, 19080, 19131

**Sorbus multicrenata**

Rosaceae  
EN D1  
Germany

Restricted to a single locality on the southern slope of a hill in Greifenstein near Blakenburg in the state of Thuringia, this species occurs within an area of 100 km². It belongs to the S. latifolia complex, originating from hybridisation between S. aria and S. terminalis.

**Assessor:** Schmidt, P.A.

**Refs:** 1719, 7222, 15608

**Sorbus parumlobata**

Rosaceae  
CR D1  
Germany

This tree is restricted to the limestone slopes south of Arnstadt in Thuringia. There are fewer than 50 individuals. It belongs to the S. latifolia complex, originating from a cross between S. aria and S. terminalis.

**Assessor:** Schmidt, P.A.

**Refs:** 1719, 7222, 15608

**Sorbus pseudofennica**

Rosaceae  
VU D2  
United Kingdom (Great Britain)

A small tree known from Glen Diamhán in Arran, where it occurs in scrub on steep granite crags and in remnant woodland on a stream bank. The area is remote and designated as a nature reserve. Signs of regeneration are evident but they are exceeded in rate by the natural loss of old trees. Attempts at supplementing the existing population of about 500 individuals by planting young trees has met with limited success. The parent species are believed to be S. arranensis and S. aucuparia.

**Assessor:** Wigginton, M.J.

**Refs:** 1719, 7222, 7801, 19148

**Sorbus pseudothuringiaca**

Rosaceae  
VU D1+2  
Germany

A shrub to medium-sized tree, confined to an area of less than 200km² in the mountain range of Fränkische Alb in the state of Bavaria. It is an apomictic species of the S. hybridia complex, originating from a cross between S. aria and S. aucuparia.

**Assessor:** Schmidt, P.A.

**Refs:** 1719, 7222, 15608

**Sorbus subcordata**

Rosaceae  
VU D1  
Germany

Endemic to the state of Thuringia, this apomict is found in a population of about 1000 individuals, on the
limestone slopes south of Arnstadt. It belongs to the S. latifolia complex, originating from a cross between S. aria and S. terminalis.

Assessor: Schmidt, P.A.
Refs: 1719, 7222, 15608

Sorbus subcuneata
Rosaceae  VU D1
United Kingdom (Great Britain)
Occurring in oak woodlands, this apomictic species is confined to a small area along the Devon and Somerset coasts. Most of the small populations are stable, with the one noted exception being the potentially threatened population above High Town in Minehead.

Assessor: Wigginton, M.J.
Refs: 7222, 7801, 19148

Sorbus velebitica
Rosaceae  DD
Croatia
Taxonomically and nomenclaturally doubtful, the species is in need of further investigation.

Assessor: Nikolic, T.
Refs: 7222, 15608, 19070

Sorbus vexans
Rosaceae  VU D1+2
United Kingdom (Great Britain)
A small tree, often multi-stemmed from the base. Populations occur in a small corridor of coast between Culbone in Somerset and an area just west of Trentishoe in Devon, where the species grows mainly in oak woodlands. There are no obvious threats to the populations, although inappropriate woodland management and the spread of Rhododendron are potential hazards. The species is apomictic.

Assessor: Wigginton, M.J.
Refs: 7222, 7801, 19148

Sorbus wilmottiana
Rosaceae  CR D1
United Kingdom (Great Britain)
Known from both sides of the Avon Gorge in Somerset and Gloucestershire, the species is one of the rarest Sorbus species in the UK. As few as 20 trees may remain in woodland margins and on cliff edges with other rare Sorbus species. The area is managed so as to conserve the rare plants. However, there have been recent reports of the illegal collection and cutting down of trees.

Assessor: Wigginton, M.J.
Refs: 7222, 7801, 19148

Sorindeia calantha
Anacardiaceae  CR B1+2d
Tanzania
Known only from a few collections, this species is confined to upper moist evergreen forest in the South Nguru Mountains.

Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

Sorindeia mildbraedii
Anacardiaceae  VU B1+2c
Cameroon, Nigeria
This small forest tree is confined to an area extending from south-east Nigeria to Cameroon, including Oban Hills in Cross River National Park, where the population is relatively well protected. Unprotected forest has been extensively logged and cleared for cultivation.

Assessor: World Conservation Monitoring Centre
Refs: 4977, 11504

Soroea guileminiana
Moraceae  VU A1c
Brazil
An Atlantic forest species widely occurring in north, north-east and south-east Brazil. Populations have declined because of habitat loss and degradation and poor regeneration.

Assessor: Carauta, J.P.P.
Refs: 15717, 19101

Soulamea terminalioides
Simaroubaceae  VU D2
Seychelles
Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.

Assessor: World Conservation Monitoring Centre
Refs: 9859, 17229

Soyauxia talbotii
Medusandraceae  EN B1+2c
Nigeria
A small tree which is recorded only in south-east Nigeria. Unprotected forest has been extensively logged and cleared for cultivation. The family is endemic to West Africa.

Assessor: World Conservation Monitoring Centre
Refs: 2773, 11504

Spachea correae
Malpighiaceae  VU C1
Costa Rica, Panama
A scarce rainforest species, which in Panama is known from only a few localities on the Atlantic slopes in the provinces of Colón and Bocas del Toro. The species is in danger of being lost from the Colón localities because the forest has rapidly disappeared in recent years. There is thought to be an occurrence in La Amistad National Park between Panama and Costa Rica and the species extends north on both Atlantic and Pacific sides up to the border with Nicaragua. Populations appear to be larger in protected areas, most notably in Corcovado National Park.

Assessor: Mitre, M.
Refs: 7980, 15037, 16772

Spathacanthus hahnianus
Acanthaceae  LR/cd
Costa Rica, Guatemala, Honduras, Mexico, Nicaragua
A species of moist seasonable montane forest or cloud forest. Although it is scarce, it is relatively wide-ranging and the habitat is well represented in protected areas.

Assessor: Ramirez-Marcial, N. & M. Gonzalez-Espinosa
Refs: 19161

Spathandra barteri
Melastomataceae  VU A1c, B1+2c
Ghana
A species which is rare and confined to small areas of swamp or riverine areas within evergreen forest. These areas have suffered losses from mining, logging and commercial forestry activities.

Assessor: Hawthorne, W.
Refs: 8309, 12061
Spathelia coccinea
Rutaceae  CR B1+2c
Jamaica
The species has been recorded only from two localities on limestone hills within five miles of Troy and on Donkey Trail Hill. The areas are susceptible to cutting and encroaching agriculture.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Spathelia glabrescens
Rutaceae  LR/nt
Jamaica
A gregarious species found in hilly areas in the central parishes. A distinct but similar species appears to have been found in Trelawny.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Spiroæanthemum graeffei
Cunoniaceae  EN D1
Fiji
A tree or shrub of dense forest and forest edges, occurring between 275 and 1050m. The species is known with certainty only from a few populations of about 20–30 plants in Viti Levu, although it has been erroneously recorded elsewhere. There are recorded occurrences in Nadarivatu and Tomaniviti Nature Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Spiroæanthemum serratum
Cunoniaceae  EN D1
Fiji
A small tree or shrub of dense thickets on crests and ridges, occurring between 1100 and 1323m. Populations are few and small, containing about 20–30 plants, confined to Viti Levu and Taveuni.
Assessor: World Conservation Monitoring Centre
Refs: 5515, 6053, 18818

Spirotecoma apiculata
Bignoniaceae  VU B1+2c
Cuba
Widespread in the Sagua-Baracoa serpentine mountain ranges of north-east Cuba, this small tree is typical of the pine forest belt between 600 and 900m and is also found in the lowland serpentine shrublands in the subcoastal zone north of the Moa Mountains. The species is not yet uncommon but has suffered from overcutting and habitat loss.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 19149

Spirotecoma holguinensis
Bignoniaceae  EN B1+2c
Cuba
A small tree up to 8m tall, confined to dry scrub and scrub–woodland communities in the serpentine areas of north-east Holguín. Overcutting, overgrazing and urban expansion have confined the population to small areas.
Assessor: Areces-Mallea, A.E.
Refs: 7980, 19149

Stadmnnia oppositifolia ssp. rhodesiaca
Sapindaceae  LR/nt
Mozambique, South Africa (Northern Province), Zimbabwe
Nowhere common, this subspecies is found relatively widely on hills in the Zimbabwe savanna, in adjacent parts of Mozambique, Canicadoa and Rio dos Elefantes, and into Northern Province, South Africa. All the South African records are from Kruger National Park. Records from KwaZulu-Natal need confirmation.
Assessor: World Conservation Monitoring Centre
Refs: 689, 2044, 5108, 7401, 19218

Stahlia monosperma
Leguminosae  EN B1+2c, C2a, D1
Dominican Republic, Puerto Rico, Virgin Islands (US)
Occurring at the margins of mangroves and in coastal forest, the species is extremely rare throughout its range. In Puerto Rico fewer than 20 trees are thought to exist in Boqueron and Sabana Grande. The wood is used in furniture-making.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124, 17540

Stauntonia pterocarpa
Myristicaceae  VU D2
São Tomé & Príncipe (São Tomé)
A timber species once of lowland forest. Individuals are now found in areas which have been settled and cultivated, as most of the original forest below 1500m was cleared in the first half of the century.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 10080

Steganotaenia commiphoroides
Umbelliferae  LR/nt
Ethiopia, Somalia
One collection has been made in Ethiopia but otherwise the species is endemic to southern Somalia. The habitat is vulnerable to degradation caused by overcutting for charcoal production and expanding agricultural activities.
Assessor: Thulin, M.
Refs: 8697, 18665

Stemmadenia pauli
Apocynaceae  VU B1+2c
Costa Rica
An understory shrub or small tree restricted to forest in Puntarenas Province.
Assessor: World Conservation Monitoring Centre
Refs: 15491

Stemnonoporus acuminatus
Dipterocarpaceae  EN A1c
Sri Lanka
A tree found only in small patches of remaining wet evergreen forest above 600m. This species was found in 13 of the sites surveys for the National Conservation Review.
Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 19112

Stemnonoporus affinis
Dipterocarpaceae  CR A1c
Sri Lanka
Endemic to Hunasgiriya, this small semi-gregarious tree is confined to the lower canopy of remaining patches of
highland wet evergreen forest. This species was not found during the extensive National Conservation Review forest surveys, indicating that it is extremely rare or possibly extinct.

**Scrensoqporus gilimalensis**
Dipterocarpaceae
CR A1c, D1
Sri Lanka
A small tree known only from Gilimal forest in Ratnapura District. It was not found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that it is either extremely rare or possibly extinct.

**Scrensoqporus kannelyiensis**
Dipterocarpaceae
EN A1c, C2a
Sri Lanka
This species was found only once in Haycock Biosphere Reserve during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct. The taxon is doubtfully distinct from *S. reticulatus*.

**Scrensoqporus lanceolatus**
Dipterocarpaceae
CR A1c, D1
Sri Lanka
Confined to remaining patches of lowland wet evergreen forest, the species occurs in small clumps on steep rocky hillsides. It was found only once in Ratnapura District during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.
extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.

Assessor: Ashton, P.
Refs: 13857, 15431, 19112

**Stemonoporus latifolius**
Dipterocarpaceae
CR B1+2c, D1
Sri Lanka
A single tree was found in Ratnapura District during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.

Assessor: Ashton, P.
Refs: 13857, 19112

**Stemonoporus marginalis**
Dipterocarpaceae
CR B1+2c, D1
Sri Lanka
A spindly tree, known only from the type locality. This species did not turn up during the extensive National Conservation Review forest surveys, indicating that it is either extremely rare or possibly extinct.

Assessor: Ashton, P.
Refs: 13857, 19112

**Stemonoporus moonii**
Dipterocarpaceae
CR C2a, D1
Sri Lanka
Confined to the Kalutara District, this small shrub is found in the understorey of swamp forests and in marshy, periodically inundated areas near slow-running streamlets. Most swamp forests have been converted to rice fields. It was found only once during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.

Assessor: Ashton, P.
Refs: 9169, 13857, 15431, 17759, 19104, 19112

**Stemonoporus nitidus**
Dipterocarpaceae
CR A1c, D1
Sri Lanka
This tree, known from a single collection, is limited to a few patches of lowland wet evergreen forest on ridges. It was not found during the extensive National Conservation Review forest surveys, indicating that it is either extremely rare or possibly extinct.

Assessor: Ashton, P.
Refs: 13857, 15431, 18796, 19112

**Stemonoporus oblongifolius**
Dipterocarpaceae
EN A1c
Sri Lanka
This small tree is sparsely distributed in remaining patches of highland wet evergreen forest. It was found in only two sites during the extensive forest surveys conducted for the National Conservation Review.

Assessor: Ashton, P.
Refs: 13857, 15431, 18796, 19112

**Stemonoporus petiolaris**
Dipterocarpaceae
CR A1c+2c, C2a
Sri Lanka
A small tree endemic to Kitulgala and Gillimala, where it grows on well-drained deep soil in lowland wet evergreen forest. It was not found during the extensive National Conservation Review forest surveys, indicating that it is either extremely rare or possibly extinct.

Assessor: Ashton, P.
Refs: 13857, 15431, 18796, 19112

**Stemonoporus reticulatus**
Dipterocarpaceae
EN A1c
Sri Lanka
A small tree confined to ridge crests in the remaining lowland wet evergreen forests of south-west Sri Lanka. It was found in only two forests during the extensive forest surveys conducted for the National Conservation Review.

Assessor: Ashton, P.
Refs: 13857, 15431, 17195, 19112

**Stemonoporus revolutus**
Dipterocarpaceae
EN A1c
Sri Lanka
A small tree of highland wet evergreen forest, known from one ridge overlooking the Sinharaja forest. It was found only once during the extensive forest surveys conducted for the National Conservation Review.

Assessor: Ashton, P.
Refs: 13857, 15431, 19112

**Stemonoporus rigidus**
Dipterocarpaceae
EN A1c
Sri Lanka
Found only in the Ambagamuwa region, this small tree had been collected only twice, in 1852 and 1860, but in 1981 a population of several hundred trees was discovered on the southern forested slopes of Peak Wilderness between 1600 and 1800m. However, it was not found during the extensive National Conservation Review forest surveys, indicating that it is either extremely rare or possibly extinct.

Assessor: Ashton, P.
Refs: 13857, 15431, 18796, 19112

**Stemonoporus scaphifolius**
Dipterocarpaceae
EN A1c
Sri Lanka
This small tree is known only from the type collection. It did not turn up during the extensive National Conservation Review forest surveys, indicating that it is either extremely rare or possibly extinct.

Assessor: Ashton, P.
Refs: 13857, 19112

**Stenanona panamensis**
Annonaceae
EN C2a
Costa Rica, Panama
Small populations exist in the Bocas del Toro in Panama, and in Sixaola in Costa Rica. They occur in primary forest, principally along streams, covering a combined area of approximately 10,000 km². The locations are affected by increasing habitat clearance and logging. It is possible that further populations remain to be found.

Assessor: Mitré, M.
Refs: 7272, 7980, 16772

**Stenocarpus dumbensis**
Proteaceae
EX
New Caledonia
This species has been collected five times in the region of Nouméa above Kofé. Despite being the botanically best known area of Grand Terre, the species has not been found since 1905.

Assessor: Jaffré, T. et al.
Refs: 4492, 10351, 12650
**Sterculia cinerea**
Sterculiaceae
LR/nt
Eritrea, Ethiopia, Sudan
The species apparently occurs disjunctly, with populations in lowland wooded grasslands in eastern Eritrea and in Illubabor in the west of Ethiopia. It is also reported in Sudan.
Assessor: World Conservation Monitoring Centre
Refs: 5941

**Sterculia khasiana**
Sterculiaceae
EX
India (Meghalaya)
An endemic tree of the Khasi Hills in Meghalaya, where it occurred in subtropical forest between 1000 and 1500m. There have been significant declines in the extent of the habitat, largely caused by extensive agriculture and fires. The species has not been collected since 1877 and is presumed extinct.
Assessor: World Conservation Monitoring Centre
Refs: 2538

**Sterculia schliebenii**
Sterculiaceae
VU D2
Kenya, Mozambique, Tanzania
Restricted to coastal forest, this species is known from only a few locations. In Kenya it occurs in the region of the Shimba Hills, and in Tanzania, Chitoa Forest Reserve (8km²) is one of the two reserves which harbour a population. The extent of occurrence in Mozambique is little known.
Assessor: Lovett, J. & G.P. Clarke
Refs: 6396, 16796

**Stephanostegia capuronii**
Apocynaceae
LR/nt
Madagascar
Confined to the east coast, the species occurs in three disjunct areas between Antalaha and Ambila. It is found in sublitoral rainforest. The wood is useful and the species is a focus for silvicultural studies.
Assessor: World Conservation Monitoring Centre
Refs: 6161

**Stephanospermum magnumfolium**
Dichapetalaceae
VU D2
Brazil (Bahia)
A distinctive small tree known from one location in the Uruçua municipality of Bahia.
Assessor: World Conservation Monitoring Centre
Refs: 13112

**Stenocarpus heterophyllus**
Proteaceae
EN B1+2c
New Caledonia
Occurring in maquis, open forest and riverine vegetation, the species is confined to a few localities in the south-west.
Assessor: Jaffré, T. et al.
Refs: 10351, 12630

**Stenocarpus villosus**
Proteaceae
CR D1
New Caledonia
A species restricted to the east coast, where it has been recorded on ultramafic substrate towards Balade and Canala. The last collection was gathered in 1860 and the species has not been found since. It is questionable whether it should not now be considered extinct.
Assessor: Jaffré, T. et al.
Refs: 4492, 10351, 12630

**Sterculia africana var. socotrana**
Sterculiaceae
VU A2d, D2
Yemen (Socotra)
A variety which is endemic to Socotra. It occurs in dry low-altitude woodland. The tree is important for its use as animal fodder and also potentially as a source of timber. Rapid development on the island may result in extensive cutting of trees for construction work.
Assessor: Miller, A.G.
Refs: 2534, 19083

**Sterculia alexandri**
Sterculiaceae
VU C2a, D2
South Africa (Eastern Cape)
A small tree found on forest margins, in scrub, and on open slopes of valleys and ravines, sometimes near stream banks, in only a few localities: Winterhoek Mountains near Uitenhage, Van Staden's Mountains near Port Elizabeth and near Kouga Dam at the start of the Bavianskloof. It possibly occurs elsewhere in the remote Kouga Mountains and Bavianskloof. All the subpopulations appear to be very small, with the one in Van Staden's Wildflower Reserve possibly being the largest and best known. Another subpopulation in the Van Staden's Valley was probably destroyed many years ago when a national road was built. There is a threat of habitat destruction through increasing settlement, industrial developments and frequent fires. Recruitment appears to be low, although plants coppice readily if damaged. A few plants are protected in the Groendal Wilderness Area. The Van Staden's Wildflower Reserve is not particularly well-managed at present.
Refs: 689, 19218

**Sterculia schliebenii**
Sterculiaceae
VU D2
Kenya, Mozambique, Tanzania
Restricted to coastal forest, this species is known from only a few locations. In Kenya it occurs in the region of the Shimba Hills, and in Tanzania, Chitoa Forest Reserve (8km²) is one of the two reserves which harbour a population. The extent of occurrence in Mozambique is little known.
Assessor: Lovett, J. & G.P. Clarke
Refs: 6396, 16796

**Sterculia macranthum**
Capparaceae
DD
Colombia, Panama
A poorly known plant, which has been collected just twice. The type specimen was found in Pinogana District in Darién. The area, until now, has been difficult to access and is little studied. A second specimen came from Antioquia in Colombia in 1945.
Assessor: Mitré, M.
Refs: 7272, 7980, 16772

**Sterculia vitensis**
Leguminosae
VU D2
Fiji
Occurring on four of the high islands, the species is found in dense forest along creeks, rivers and their tributaries. It has not been collected frequently.
Assessor: World Conservation Monitoring Centre
Refs: 18818

**Streblorrhiza speciosa**
Leguminosae
EX
Norfolk Island
Assessor: World Conservation Monitoring Centre
Refs: 3484, 11400, 13880
Species Summaries

Streblus sclerophyllus
Moraceae
VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Streptocarpus arborea
Apocynaceae
VU B1+2c
Jamaica
A Cockpit Country endemic found in areas of woodland on craggy limestone.
Assessor: World Conservation Monitoring Centre
Refs: 401, 5653, 7980

Strzychnos benthamii
Loganiaceae
VU B1+2c
Sri Lanka
This species has been found in only six forest sites during the extensive forest surveys conducted for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Strzychnos chromoxylon
Loganiaceae
DD
Cameroon, Central African Republic, Côte d'Ivoire
This species is severely restricted in the Upper Guinea part of its range, where it was found only once in the riverine forest in Bafing, between Biankouma and Touba in Côte d'Ivoire. In Cameroon and the Central African Republic its status is not yet known.
Assessor: World Conservation Monitoring Centre
Refs: 12590, 12822

Strzychnos mellodora
Loganiaceae
VU B1+2bc
Kenya, Mozambique, Tanzania, Zimbabwe
Although the species ranges from Kenya to Zimbabwe, it exists in small and restricted pockets of moist forest, which have declined in extent over the past few decades. It has been found only once in the Shimba Hills in Kenya. In Tanzania it occurs in the East Usambara Mountains, the North Udzungwa Mountains, where it is very scarce, and the Ngurdota Crater on Mount Meru. The species is confined to Chirinda forest in Zimbabwe, where there is a well-protected healthy population. It has also been recorded from Garuso forest in central Mozambique.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 6725, 8814, 16232

Strzychnos millepunctata
Loganiaceae
VU B1+2c
Côte d'Ivoire
Represented by few known collections, this endemic of Côte d'Ivoire is scattered throughout the country in primary forest. Extensive logging has severely reduced the extent of forest in the country in the last three decades.
Assessor: Assi, A.
Refs: 12822

Strzychnos tetragona
Loganiaceae
CR B1+2c
Sri Lanka
A tree confined to areas of lowland wet evergreen forest in south-west Sri Lanka. Only a single individual was found in Knuckles State Forest during the extensive forest surveys conducted for the National Conservation Review between 1991 and 1996. Previous surveys recorded populations in Sinharaja Biosphere Reserve and Uduwila Forest Reserve.
Assessor: World Conservation Monitoring Centre
Refs: 9176, 17195, 19112

Stuhlmannia moavi
Leguminosae
VU B1+2c, C2a, D2
Kenya, Madagascar, Tanzania
The accepted name for Caesalpinia insolita, this taxon is recognised as a new genus. It is known from a few coastal forest fragments at Mwen River in Kenya and in several sites on the coastal plain between Pangani and Miligli Rivers in Tanzania, including the relatively undisturbed Gendagda Forest Reserve and a cattle ranch which may be added to the Sadaani Game Reserve. It is also reported from Madagascar.
Assessor: Lovett, J. & G.P. Clarke
Refs: 1308, 4506, 6396, 12067, 16796

Styogyne darianensis
Myrsinaceae
DD
Panama
Collected only once, the species is restricted to a region which has been poorly explored until now. Styogyne is known from several collections in Darién, identified as other species.
Assessor: Mitré, M.
Refs: 16772

Styrax argyrophyllus
Styracaceae
VU D2
Peru
This species appears to be confined to the department of Cajamarca in the Andes, where it is known only from the type locality in submontane shrubland.
Assessor: Chua, L.S.L.
Refs: 9199, 17140, 19073

Styrax crotonoides
Styracaceae
VU B1+2c
Malaysia (Peninsular Malaysia), Singapore
This species inhabits both closed and open lowland rainforest and swamp or disturbed forests. Many such forests in the state of Johore have undergone conversion, particularly for housing developments.
Assessor: Chua, L.S.L.
Refs: 9199, 17140, 19073

Styrax ferax
Styracaceae
VU D2
Peru
So far known only from the type locality, the species occurs in lowland forest in the department of Junín.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Styrax joveolaria
Styracaceae
VU D2
Peru
This species is known only from the type collection from the department of Huánuco.
Assessor: World Conservation Monitoring Centre
Refs: 1984
Styrax fraserensis
Styracaceae
VU D2
Malaysia (Peninsular Malaysia)
A rare species occurring at 1300m on Frasers Hill, Pahang. The prime threat to this species is tourism.  
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Styrax lixoides
Styracaceae
VU D2
Viet Nam
A species apparently endemic to Viet Nam, where it is known only from Phu Loc in Lang Co in the centre of the country.  
Assessor: World Conservation Monitoring Centre
Refs: 1984

Styrax mathewsii
Styracaceae
VU D2
Peru
Recorded only from the type collection, the species occurs in submontane forest in the department of Amazonas.  
Assessor: World Conservation Monitoring Centre
Refs: 1984

Styrax peruvianum
Styracaceae
VU D2
Peru
This Andean species appears to be confined to Cajamarca, where it has been recorded only from the type collection taken from submontane shrubland.  
Assessor: World Conservation Monitoring Centre
Refs: 1984

Styrax portoricensis
Styracaceae
CR D1
Puerto Rico
A total of four individuals are known from a single site of upper montane wet forest in the Caribbean National Forest.  
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124, 17540

Styrax socialis
Styracaceae
VU D2
Peru
A shrubland species, known only from the type collection in scrub occurring below 1500m in Cuzco Department.  
Assessor: World Conservation Monitoring Centre
Refs: 1984

Styrax tafelbergensis
Styracaceae
VU D2
Suriname
A rare endemic, known only from Tafelberg, where it is found in creek forest near the Table Mountain.  
Assessor: World Conservation Monitoring Centre
Refs: 6493, 19196

Suregada lithoxyla
Euphorbiaceae
VU B1+2b
Tanzania
Restricted to patches of moist evergreen forest in eastern Tanzania, this tree is known from Kimboza Forest Reserve, the East Usambara Mountains and possibly also the North Udzungwa Mountains. All these localities are in densely populated areas but are relatively well protected by guards or active conservation programmes.  
Assessor: Lovett, J. & G.P. Clarke
Refs: 3536, 8814

Swartzia fistuloides
Leguminosae
EN A1cd
Angola (Cabinda), Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Ghana, Nigeria
Although widespread in closed forests in West and Central Africa, the species is not common. It is exploited at a moderate level as a decorative timber. There is also evidence that regeneration may be hampered in places by the absence of its seed disperser, the elephant.  
Assessor: African Regional Workshop
Refs: 2773, 6128, 6718, 8369, 17408

Swartzia macrophylla
Leguminosae
EX
Colombia
Believed to be extinct, the species was recorded from an unspecified locality, probably in Antioquia.  
Assessor: Calderon, E.
Refs: 7980, 8869, 17690, 19069

Swartzia nuda
Leguminosae
EN B1+2c
Panama
A species which is known only from two localities, Isla Colón and Valle del Agua, in Bocas del Toro, where it occurs, fairly commonly, in lowland evergreen to semi-evergreen rainforest. There are some threats from logging and encroaching settlements and agriculture.  
Assessor: Mitre, M.
Refs: 7980, 16772, 17690

Swartzia oraria
Leguminosae
CR B1+2c
Colombia
An endemic to Valle.  
Assessor: Calderon, E.
Refs: 7980, 19069

Swartzia rediviva
Leguminosae
VU D2
Suriname
An endemic species known only from the type locality along the Left Copennamon River.  
Assessor: World Conservation Monitoring Centre
Refs: 19196

Swartzia robiniiifolia
Leguminosae
EN B1+2c
Colombia
Endemic to Colombia, the species is recorded from Cauca, Santander and Tolima.  
Assessor: Calderon, E.
Refs: 19069

Swartzia santanderensis
Leguminosae
VU B1+2c
Colombia
An endemic of Santander.  
Assessor: Calderon, E.
Refs: 7980, 19069
**Species Summaries**

**Swida darvasica**

Cornaceae  
Former USSR, Tajikistan  
A shrub reaching up to 4m or more in height, restricted to a single location in Darvaz, Tajikistan, consisting of only a few plants. It can be easily cultivated and has potential as an ornamental.

Assessor: Firsov, G.A.

Refs: 4196, 19056

**Swietenia humilis**

Meliaceae  
VU Alcd  
Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama  
A species of dry deciduous forest, savanna, rough scrub, rocky hillside and cultivated fields. Trees are usually seen as scattered and isolated individuals, preserved in cultivated land and pastures. Large specimens are rare. The timber is used in local carpentry, but is of little commercial importance. The species is listed in Appendix II of *CITES*.

Assessor: World Conservation Monitoring Centre  
Refs: 4974, 7980, 12281

**Swietenia macrophylla**

Meliaeae  
VU Alcd+2cd  
Belize, Bolivia, Brazil (Acre, Amazonas, Goiás, Maranhão, Mato Grosso, Pará, Rondônia, Tocantins), Colombia, Costa Rica, Dominica, Ecuador, El Salvador, French Guiana, Guatemala, Guyana, Honduras, Mexico (Quintana Roo), Nicaragua, Panama, Peru, Venezuela  
A very large timber tree which has an extensive natural distribution in various forest types. This species is the most commercially important of the mahoganies. The level of exploitation has led to the exhaustion of supplies particularly in the northern parts of its range. The ecology of northern populations is relatively well understood whereas virtually nothing is known about Amazonian populations. Basic inventories are lacking for most of its range. Good stands apparently still remain in parts of Brazil and Bolivia. Regeneration of the species is stochastic, depending in nature on large-scale disturbance. This ecological strategy makes mahogany vulnerable to logging regimes. Harvesting and processing are generally only 50 percent efficient. There is, at present, little economic incentive to manage natural stands sustainably. International trade in timber of the species is subject to the provisions of Appendix III of *CITES*.

Assessor: World Conservation Monitoring Centre  
Refs: 1957, 4147, 4217, 4974, 5124, 6602, 9076, 12109, 12268, 12281, 14717, 14873, 15539, 16123, 19170

**Swietenia mahagoni**

Meliaceae  
EN Alcd  
Anguilla, Antigua and Barbuda, Bahamas, Cayman Islands, Colombia, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe (Guadeloupe, St Martin-St Barthélemy), Jamaica, Martinique, Montserrat, St Kitts and Nevis, St Lucia, St Vincent, Trinidad and Tobago, Turks and Caicos Islands, USA (Florida), Venezuela  
The Caribbean mahogany is found on the Caribbean islands and also in south Florida in dry or moist forest, often on limestone. Its natural distribution is hard to ascertain as it has been widely cultivated. It was the first mahogany to appear in the European market five centuries ago. Natural stands are extensively exhausted and the species exhibits high levels of genetic erosion.

Remaining individuals are usually weedy trees or bushes. Small quantities of timber from plantations are occasionally available on the international market. The species is listed in Appendix II of *CITES*.

Assessor: Americas Regional Workshop  
Refs: 5519, 6602, 7630, 12281, 16261, 19178, 19179, 19187

**Syagrus botryophora**

Palmae  
LR/nt  
Brazil (Bahia, Espírito Santo, Sergipe)  
A tree of Atlantic coastal rainforest. The species responds badly to forest clearance. Seed production and seedling survival decline outside forest areas.

Assessor: Noblick, L.

Refs: 19118

**Syagrus glaucescens**

Palmae  
VU Alc  
Brazil (Minas Gerais)  
A small palm tree of *cerrado* and *campo rupestre* on rocky outcrops, confined to Serra da Diamantina of Minas Gerais. Population numbers are declining at an alarming rate. Only a few small trees remain and mature individuals are almost completely absent from certain rocky areas. There is evidence that adult palms have been collected, possibly transplanted into cultivation.

Assessor: Noblick, L.

Refs: 19118

**Syagrus macrocarpa**

Palmae  
EN C2a  
Brazil (Espírito Santo, Minas Gerais, Rio de Janeiro)  
The species is confined to Atlantic coastal forest. It is particularly rare in Espírito Santo. Trees are so sparsely scattered that outcropping may be seriously limited. No large populations are known.

Assessor: Noblick, L.

Refs: 19118

**Syagrus straticotina**

Palmae  
VU B1+c  
French Guiana, Guyana, Suriname  
A palm tree that occurs in fewer than 10 localities on granite outcrops in low transitional moist forest in the Guianas. In French Guiana one of these sites is in Las Neuragus Nature Reserve. Fire and poor regeneration are the principal threats.

Assessor: de Granville, J.J

Refs: 19118

**Sympetalandra schmutzii**

Leguminosae  
VU D2  
Indonesia (Lesser Sunda Is.)  
A large tree endemic to Flores Is.

Assessor: World Conservation Monitoring Centre  
Refs: 1011

**Symphonia globulifera var. angustifolia**

Guttiferae  
DD  
Panama  
Assessor: Mitre, M.

Refs: 15309, 16772, 17397

**Symphyochlamys erlangeri**

Malvaceae  
LR/nt  
Somalia  
A tree from a monotypic genus. It is confined to southern Somalia where the habitat is extensively
degraded because of overcutting for charcoal production and overgrazing.

*Assessor: Thulin, M.*

*Refs: 8697, 18665*

**Symlocos anamallayana**

**Symlocaceae**

India (Kerala, Tamil Nadu)

A small tree of montane forest, occurring above 2100m. Existing records and collections have all come from a restricted area within the Anamalai and Palni ranges.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 8483, 19144*

**Symlocos baehnii**

**Symlocaceae**

Peru

Only the type collection is known. It was recorded from the department of Junin.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 1984*

**Symlocos barbei**

**Symlocaceae**

India (Tamil Nadu)

This species is endemic to the Agasthyamalai Hills at the southern end of the Western Ghats. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 5651*

**Symlocos bractealis**

**Symlocaceae**

Sri Lanka

In the extensive surveys conducted for the National Conservation Review, this species was discovered in nine forest localities, mainly confined to Nuwara Eliya District.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 15431, 19112*

**Symlocos breedlovei**

**Symlocaceae**

Mexico

*Assessor: Ramirez-Marcial, N. & M. González-Espinosa*  
*Refs: 3913, 9227, 19203*

**Symlocos calycodactylos**

**Symlocaceae**

Malaysia (Peninsular Malaysia)

A species of hill and submontane forest up to 900m. A few collections have been made, from the states of Kedah and Perak. Logging and increasing settlement are the principal threats to remaining populations.

*Assessor: Chua, L.S.L.*  
*Refs: 8464, 19073*

**Symlocos canescens**

**Symlocaceae**

Ecuador

An endemic of the Ecuadorean High Andes, currently known to occur in areas of cloud forest between 2500 and 3400m in Loja and Zamora-Chinchipe Province.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 19119, 19120*

**Symlocos carmencitae**

**Symlocaceae**

Ecuador

An endemic tree of Ecuador, currently known to inhabit montane cloud forest in the High Andean areas of Imbabura.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 19119, 19120*

**Symlocos clethrifolia**

**Symlocaceae**

Ecuador

This tree is endemic to the High Andes of Ecuador where it inhabits clouds forest between 3000m and 3500m. Currently known from Morona-Santiago, Azuay and Loja.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 19119, 19120*

**Symlocos coccinea**

**Symlocaceae**

Mexico (Oaxaca, Puebla, Veracruz)

A cloud forest species distributed in the Sierra Madre Oriental. Its range has declined and populations are reduced to areas that have escaped agricultural expansion, such as deep gullies.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 81, 16907, 19206*

**Symlocos cordifolia**

**Symlocaceae**

Sri Lanka

During the extensive forest surveys conducted for the National Conservation Review, this species was apparently locally common but occurred in only six of the surveyed localities in the districts of Nuwara Eliya and Kandy.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 15431, 17759, 19112*

**Symlocos coronata var. coronata**

**Symlocaceae**

Sri Lanka

A variety restricted to the lowland wet evergreen forests of south-west Sri Lanka.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 15431, 17195*

**Symlocos coronata var. glabrifolia**

**Symlocaceae**

Sri Lanka

A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 15431, 17195*

**Symlocos costata**

**Symlocaceae**

Indonesia (Sumatra)

Scattered in remnant montane and hill forest, the species occurs from areas in the west to as far east as Gunung Telomojo. This habitat has been almost completely cleared in areas below 1400m and the pressures are intense on remaining areas.

*Assessor: World Conservation Monitoring Centre*  
*Refs: 18840*
Species Summaries

**Symplocos cuneata var. acuta**

*Symplocaceae*

Sri Lanka

A variety occurring in the lowland wet evergreen forests of south-west Sri Lanka.

*Assessor: World Conservation Monitoring Centre*

*Refs: 15431, 17195*

**Symplocos cuneata var. cuneata**

*Symplocaceae*

Sri Lanka

A tree occurring in the lowland wet evergreen forests of south-west Sri Lanka.

*Assessor: World Conservation Monitoring Centre*

*Refs: 15431, 17195*

**Symplocos diversifolia var. appressa**

*Symplocaceae*

Sri Lanka

The species was found in only two forest sites in Ratnapura District during the extensive forest surveys conducted for the National Conservation Review. The sites are not protected.

*Assessor: World Conservation Monitoring Centre*

*Refs: 15431, 19112*

**Symplocos diversifolia var. diversifolia**

*Symplocaceae*

Sri Lanka

The species was found in only two forest sites in Ratnapura District during the extensive forest surveys conducted for the National Conservation Review. The sites are not protected.

*Assessor: World Conservation Monitoring Centre*

*Refs: 15431, 19112*

**Symplocos globosa**

*Symplocaceae*

Ecuador

A cloud forest tree of the Ecuadorian High Andes, currently only known to occur in Cañar and Azuay Provinces.

*Assessor: World Conservation Monitoring Centre*

*Refs: 19119, 19120*

**Symplocos hispidula**

*Symplocaceae*

Sri Lanka

A tree restricted to the lowland wet evergreen forests of south-west Sri Lanka.

*Assessor: World Conservation Monitoring Centre*

*Refs: 17195*

**Symplocos junghuhnii**

*Symplocaceae*

Indonesia (Java)

Occurring in the west in mixed montane forest at about 1750m, the species appears to be very rare. The pressures from encroachment and cutting exerted on the habitat at this high elevation are less intense than at lower levels but are still very strong.

*Assessor: World Conservation Monitoring Centre*

**Symplocos longipes**

*Symplocaceae*

Mexico

*Assessor: Ramirez-Marcial, N. & M. González-Espinosa*

*Refs: 3913, 9227*

**Symplocos lugubris**

*Symplocaceae*

Peru

Known only from the type collection, the species occurs in submontane forest in the department of Amazonas.

*Assessor: World Conservation Monitoring Centre*

*Refs: 1984*

**Symplocos macrocarpa ssp. kanarana**

*Symplocaceae*

India (Karnataka, Kerala)

Although scattered over a wide area from north of the Kalinadi River in Karnataka to the Agastiyamalai Hills in Kerala, the taxon has rarely been collected or recorded. It occurs in evergreen forest up to 1000m. The type subspecies is well collected but confined to the Agastiyamalai Hills.

*Assessor: World Conservation Monitoring Centre*

*Refs: 19144*

**Symplocos mezii**

*Symplocaceae*

Peru

A Peruvian endemic, known only from the type collection from the department of Cajamarca.

*Assessor: World Conservation Monitoring Centre*

*Refs: 1984*

**Symplocos molinae**

*Symplocaceae*

Honduras

*Assessor: Nelson, C.*

*Refs: 13995, 15830*

**Symplocos nairii**

*Symplocaceae*

India (Tamil Nadu)

A small tree of submontane evergreen forest, collected from two localities at the southern end of the Western Ghats.

*Assessor: World Conservation Monitoring Centre*

*Refs: 19144*

**Symplocos nivea**

*Symplocaceae*

Malaysia (Peninsular Malaysia)

This endemic tree is scattered in lowland primary forest in Penang and Johore. Both states are undergoing rapid habitat clearance for increasing settlement.

*Assessor: Chua, L.S.L.*

*Refs: 8464, 19073*

**Symplocos octopetala**

*Symplocaceae*

Jamaica

Occurring in the western Blue Mountains and John Crow Mountains, the species has an occasional to common distribution over most montane habitats between 1160 and 1700m.

*Assessor: World Conservation Monitoring Centre*

*Refs: 401, 5653, 7980, 19085*

**Symplocos oligandra**

*Symplocaceae*

India (Tamil Nadu)

An endemic tree of the Agastiyamalai Hills at the southern end of the Western Ghats. The species has been collected only twice in areas of submontane evergreen forest. Large areas have been exposed to fires, grazing,
the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5651, 19144

**Symlocos peruviana**  
Symlocaceae  
Peru  
Known only from the type collection, the species is confined to the department of Cajamarca.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1984

**Symlocos pubera ssp. coriacea**  
Symlocaceae  
India (Tamil Nadu)  
A small tree, known only from the type specimen collected from a restricted area of submontane forest in the Agasthyamalai Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Symlocos pyriforma**  
Symlocaceae  
Malaysia (Peninsular Malaysia)  
A shrub or small tree of moist submontane rainforest up to 1450m. This species is found in Taman Negara National Park and in protective forest within the permanent forest estate.  
**Assessor:** Chua, L.S.L.  
**Refs:** 8464, 19073

**Symlocos rimbachii**  
Symlocaceae  
Ecuador  
An Ecuadorian endemic, inhabiting cloud forest at 2600m in the High Andean areas of Bolivar.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19119, 19120

**Symlocos shilanensis**  
Symlocaceae  
Taiwan  
Known only from the Nanjenshan area in the Hengchun Peninsula, the species occurs in very small and isolated populations in lowland forest. Little regeneration is evident and the expansion of housing developments has caused declines in the habitat. The Kenting National Park covers the entire range.  
**Assessor:** Pan, F.J.  
**Refs:** 3295, 19050, 19053

**Symlocos sousae**  
Symlocaceae  
Costa Rica, Mexico (Jalisco, Oaxaca)  
A small tree of montane mesophyllous forest, between 2500 and 2700m. In Mexico it occurs only in the Sierra de Manantlán. More information is needed on its distribution elsewhere.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7980, 12985, 13361, 19068

**Symlocos tacanensis**  
Symlocaceae  
VU B1+C  
El Salvador, Guatemala  
A cloud forest species confined to Monte Cristo and Esesmiles in El Salvador. More information is needed on the status of populations. The main threat to the habitat is fire.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 3913, 4862, 4974, 19030

**Symlocos trichocladia**  
Symlocaceae  
VU D1+C  
Taiwan  
Two small populations are known to exist on Chiben Mountain in the south. Trees are scattered sparsely in mixed forest between 1800 and 2100m. Regeneration is noted to be poor and no conservation or protection measures are in place.  
**Assessor:** Lu, S.Y. & F.J. Pan  
**Refs:** 19050, 19053

**Symlocos tubulifera**  
Symlocaceae  
VU B1+C  
Jamaica  
An uncommon tree restricted to St Catherine and St Ann Parishes.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 401, 5653, 7980

**Symlocos versicolor**  
Symlocaceae  
CR B1+2  
Sri Lanka  
A species of lowland wet evergreen forest in south-west Sri Lanka. It has been recorded from several sites in Sinharaja Biosphere Reserve, but not during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 17195, 19112

**Synadenium compactum var. compactum**  
Euphorbiaceae  
VU B1+C  
Kenya  
Endemic to central Kenya, this variety occurs in riverine or rocky sites in dry bushland. The habitat is threatened by encroaching agriculture and land settlement in the area. The Plant Conservation Programme in Kenya maintains living stocks for ex situ conservation.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6396, 10961, 17839

**Synapnis ilicifolia**  
Bignoniaceae  
EN B1+2  
Cuba  
A rare shrub or tree, up to 15m in height, locally confined to small areas of karstic semi-deciduous forest on limestone cliff in Santiago de Cuba Province.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 11403, 18485, 19149

**Synsepalum aubrevillei**  
Sapotaceae  
VU A1c, B1+C  
Côte d'Ivoire, Ghana  
A small rare tree confined to wet evergreen forests in Ghana and neighbouring Côte d'Ivoire. Significant parts of this forest have been lost to mining, logging and commercial forestry activities.  
**Assessor:** Hawthorne, W.  
**Refs:** 2773, 8369, 12061
**Synsepalum glycydorum**
Sapotaceae  
Nigeria
A small tree, apparently confined to the Oban Hills in Cross River National Park. Surrounding areas have been extensively logged and cleared for cultivation.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2773, 4977, 11504

**Synsepalum kassneri**
Sapotaceae  
Kenya, Mozambique, Tanzania, Zimbabwe
Widely known under the genus *Afrosenlisia*, this species is known from populations in the Shimba Hills in Kenya, coastal forest in Tanzania, Makurupini National Park (1.5 km²) in Zimbabwe and the lower slopes of the Chimanimpani Mountains in Mozambique. It occurs in some abundance in some areas, especially towards the drier regions of forest, but it is being actively cut in places (e.g. Mangea in Kenya).  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 5654, 6396, 6725, 10781

**Synsepalum subverticillata**
Sapotaceae  
Kenya, Tanzania?
A small tree of moist semi-deciduous lowland forest or dense bushland. There are populations in Witu Forest Reserve, Gongoni Forest Reserve and the Shimba Hills National Reserve. It is also thought to extend into Tanzania. The entire species range is contained within protected areas, although there is no enforcement of protective measures.  
**Assessor:** CAMP Workshop in Kenya  
**Refs:** 19181

**Synsepalum tsounkpe**
Sapotaceae  
Côte d'Ivoire
A coastal forest species known only from Côte d'Ivoire. Clearing and degradation of the forest have been extensive in the last three decades. This species has local importance as a food sweetener.  
**Assessor:** Assi, A.  
**Refs:** 2773, 12822

**Syzygium ampliflorum**
Myrtaceae  
Indonesia (Java)
The only known locality is in Mount Galunggung in forest from 1300 to 1400m, where it may have suffered damage from a volcanic eruption in 1982. The habitat is under constant pressure from the activities of surrounding populations.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9078, 19060

**Syzygium amplifolium**
Myrtaceae  
Fiji
A shrub or slender tree, known only from southern Viti Levu in forested areas at elevations of 50-429m.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 9078, 18818

**Syzygium andamanicum**
Myrtaceae  
India (Andaman and Nicobar Is. - Andaman Is.)
Endemic to the Andaman Islands, the species is known only from the type collections. There have been large declines in the extent of the forest habitat because of logging. It is not known whether the species is now extinct.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 427, 4799

**Syzygium assimile var. acuminata**
Myrtaceae  
Sri Lanka
The species was found in only three localities during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review. No information is available at the variety level.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15431, 17759, 19112

**Syzygium beddomei**
Myrtaceae  
India (Tamil Nadu)
A relatively large tree of submontane evergreen forest, known from a single collection in the Agastyamalai Hills and from a less precisely located record in the Anaimalai range.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Syzygium benthamianum**
Myrtaceae  
India (Kerala, Tamil Nadu)
A small tree of montane forest, occurring in the Nilgiris, the Agastyamalai Hills and a few scattered localities in between.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144

**Syzygium bourdillonii**
Myrtaceae  
India (Kerala)
A forest species recorded only from Merchiston in Trivandrum District and Colatooplay in Quilon District in a restricted area of forest. It is not known whether any populations still remain. There has been much habitat destruction in places and the species has not been collected since 1895.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 2538, 19144

**Syzygium caryophyllatum**
Myrtaceae  
Sri Lanka
This species was found in three of the sites surveyed by the National Conservation Review. Apparently it is restricted to forest in the wet zone.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19112

**Syzygium chavaran**
Myrtaceae  
India (Kerala)
A lowland forest species, known only from the type collection near the border with Tamil Nadu and from a field record on the coast.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 19144
Syzygium cordifolium ssp. cordifolium
Myrtaceae  VU A1c, B1+2c
Sri Lanka
A subspecies confined to lowland rainforest in south-west Sri Lanka. The species as a whole was found in only seven of the forest sites surveyed for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 19112

Syzygium cordifolium ssp. spissum
Myrtaceae  VU A1c, B1+2c
Sri Lanka
This subspecies is restricted to lowland rainforest in south-west Sri Lanka. The species as a whole was found in only seven of the forest sites surveyed for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 17759, 19112

Syzygium courtallense
Myrtaceae  CR B1+2cde
India (Tamil Nadu)
Recorded from a single locality in the Courtallam Hills, the species has not been found for over 100 years despite the area being accessible and visited by tourists. Apparently it is in cultivation in Sri Lankan gardens.
Assessor: World Conservation Monitoring Centre
Refs: 2538, 19144

Syzygium cyclophyllum
Myrtaceae  CR B1+2c
Sri Lanka
Only three trees were found in a single proposed reserve in Ratnapura District during the surveys conducted between 1991 and 1996 for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Syzygium densiflorum
Myrtaceae  VU B1+2c
India (Karnataka, Kerala, Tamil Nadu)
Collected seven times, the species occurs in scattered localities of montane forest, above 1500m, in the Nilgiris, Anamalai and Palni Hills.
Assessor: World Conservation Monitoring Centre
Refs: 19114

Syzygium discophorum
Myrtaceae  EN B1+2c
Indonesia (Java)
This species is confined to Mount Willis in central Java in forest between 1300 and 1500m. Strong pressures are exerted by the activities of surrounding populations.
Assessor: World Conservation Monitoring Centre
Refs: 9078, 19060

Syzygium fergusonii
Myrtaceae  EN B1+2c
Sri Lanka
The species was found in three of the sites surveyed by the National Conservation Review. It appears to be locally common in Knuckles State Forest.
Assessor: World Conservation Monitoring Centre
Refs: 19112

Syzygium firmum
Myrtaceae  VU A1c
Sri Lanka
A tree restricted to lowland rainforest in south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Syzygium gambeleanum
Myrtaceae  EX
India (Tamil Nadu)
A small-leaved tree collected only once in montane evergreen forest along the Muthukuzhi River in Kanyakumari District. It is unlikely to be found again as the forest was extensively cleared for the construction of the Kohayar Dam.
Assessor: World Conservation Monitoring Centre
Refs: 2538

Syzygium makul
Myrtaceae  VU A1c
Sri Lanka
A tree confined to scattered locations in lowland rainforest in south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Syzygium manii
Myrtaceae  CR B1+2c
India (Andaman and Nicobar Is. - Andaman Is.)
A species known only from the type locality in semi-evergreen forest on Middle Andaman Island. There have been large declines in the extent of the habitat because of logging.
Assessor: World Conservation Monitoring Centre
Refs: 427, 4799

Syzygium micranthum
Myrtaceae  VU A1c
Sri Lanka
A tree restricted to lowland rainforest in south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

Syzygium microphyllum
Myrtaceae  EN B1+2c
India (Tamil Nadu)
Known only from the type locality, the species is endemic to a small area at the margin of montane forest in the Agasthyamalai Hills. Although relatively intact, large parts of the forest have been affected by fires, grazing, the increasing incursion of commercial plantations and cutting for fuelwood. More information is needed on the status of the species and direct threats to its populations.
Assessor: World Conservation Monitoring Centre
Refs: 5651, 19144

Syzygium minus
Myrtaceae  EN D1
Fiji
This small tree is confined to the Mount Evans range on Viti Levu, where it is known from the type locality and two collections gathered from crest thickets between 760 and 850m.
Assessor: World Conservation Monitoring Centre
Refs: 5372, 18818

534
**Syzygium myhendræ**
Myrtaceae
India (Kerala, Tamil Nadu)
A poorly known species of submontane forest, occurring at the southern end of the Western Ghats. Only two records are known, one from the Travancore range and the other from the Agastiyamalai Hills.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Syzygium neesianum**
Myrtaceae
EN B1+2c
Sri Lanka
A tree restricted to lowland rainforest in south-west Sri Lanka.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195

**Syzygium occidentale**
Myrtaceae
VU A1c
India (Karnataka, Kerala)
A small tree of lowland riverine forest, known from scattered collections mostly from the southern end of the Western Ghats in Kerala but also from single isolated records in Karnataka.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Syzygium oliganthum**
Myrtaceae
VU B1+2c
Sri Lanka
Apparantly confined to Nuwara Eliya District, this species was recorded from seven sites during the recent National Conservation Review forest surveys.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 19112

**Syzygium palghatense**
Myrtaceae
CR B1+2abcede
India (Kerala)
A large tree endemic to montane forest in the Palghat Hills. Recorded in the last century, it has not been found since. The habitat is considerably reduced in extent and it is unknown whether the species is still extant.
Assessor: World Conservation Monitoring Centre
Refs: 2538, 19144

**Syzygium parameswaranii**
Myrtaceae
EN B1+2c
India (Tamil Nadu)
Known from two collections in two separate localities on the border with Kerala, the species is poorly known but appears to be confined to montane forest in the Agastiyamalai Hills and Elamalai Hills.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Syzygium phaseophyllum**
Myrtaceae
CR D1
Fiji
A small tree of dense forest between 700 and 900m. Only the type collection, dated 1934 from Taveuni, is known.
Assessor: World Conservation Monitoring Centre
Refs: 5372, 18818

**Syzygium phyllyraeoides**
Myrtaceae
CR B1+2c
Sri Lanka
A rare tree restricted to lowland rainforest in south-west Sri Lanka and previously known from Kanneliya Forest Reserve. It was not found during the extensive forest surveys conducted between 1991 and 1996 for the National Conservation Review, suggesting that the species is either extremely rare or possibly extinct.
Assessor: World Conservation Monitoring Centre
Refs: 17195, 19112

**Syzygium pondoense**
Myrtaceae
VU A2c, B1+3d
South Africa (Eastern Cape, KwaZulu-Natal)
A shrub or small tree growing among sandstone boulders on islands in the bed of the Umtamvuna River in southern KwaZulu-Natal and in a number of river valleys in the Port Shepstone area, including the Lusikisiki and Bizana Districts of the Transkei in the Eastern Cape. In places it occurs in abundance, but it is susceptible to periodic flooding. The floods in 1978 destroyed most of the plants in the Umvamuna River Valley, but the subpopulation was able to recover from the few remaining plants. Subpopulations are found in two provincial reserves and a number of demarcated forests, which are no longer strictly protected and under threat from increasing settlement and cutting for firewood and timber.
Refs: 689, 19218

**Syzygium ramavarmana**
Myrtaceae
VU B1+2c
India (Kerala, Tamil Nadu)
A medium-sized tree of submontane evergreen forest. The main concentration of collections comes from the Agastiyamalai Hills. A single collection has also been made in the Anaimalai Hills.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Syzygium rotundifolium**
Myrtaceae
VU A1c, B1+2c
Sri Lanka
This tree occurs frequently in upper montane rainforest. It was recorded in nine of the sites surveyed from the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 19106, 19112

**Syzygium spatulatum**
Myrtaceae
EN B1+2c
Sri Lanka
An endemic tree found in wet and dry forest in Sri Lanka. The species was found in only five of the sites surveyed for the National Conservation Review, including an occurrence in a strict nature reserve.
Assessor: World Conservation Monitoring Centre
Refs: 15431, 17195, 17759, 19112

**Syzygium spissum**
Myrtaceae
VU B1+2c
Sri Lanka
The species was found in only seven of the sites surveyed for the National Conservation Review.
Assessor: World Conservation Monitoring Centre
Refs: 19112
<table>
<thead>
<tr>
<th>Species</th>
<th>Order</th>
<th>Suborder</th>
<th>Family</th>
<th>Code</th>
<th>Country</th>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syzygium stocksii</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>EN B1+2c</td>
<td>India (Karnataka, Kerala)</td>
<td>A poorly known species, recorded twice from unspecified localities in the Wayanad area in Kerala and just over the border into Karnataka. It appears to occur in evergreen forest at about 800m.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Syzygium sylvestre</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>CR B1+2cd</td>
<td>Sri Lanka</td>
<td>This species is confined to lowland rainforest in southwest Sri Lanka. It was not found during the extensive National Conservation Review forest surveys, indicating that it is either extremely rare or possibly extinct.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Syzygium travancoricum</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>CR C2a</td>
<td>India (Kerala)</td>
<td>The total population is very small, numbering less than 200. The sacred grove of Aickad is reported to harbour four individuals and another population of 15 to 20 trees has been seen at Guddrikal. The swampy wetland habitat has been widely drained and converted into paddy fields.</td>
<td>Assessor: CAMP Workshops on Medicinal Plants in India</td>
</tr>
<tr>
<td>Syzygium turbinatum</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>EN B1+2c</td>
<td>Sri Lanka</td>
<td>This tree was found in only four of the sites surveyed for the National Conservation Review.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Syzygium umbrosum</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>EN B1+2c</td>
<td>Sri Lanka</td>
<td>A species found in only three of the sites surveyed during the extensive National Conservation Review, one of which is a strict nature reserve.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Syzygium utilis</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>DD</td>
<td>India (Karnataka)</td>
<td>A tree of evergreen forest, known from an imprecisely recorded collection taken from North Kanara.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Syzygium woffii</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>VU D2</td>
<td>Fiji</td>
<td>A Fijian endemic known from the type collection on Viti Levu and five collections from Vanua Levu. The species occurs in dense or secondary forest, forest patches in open country, or on forested crests.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Syzygium wrightii</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>VU D2</td>
<td>Seychelles</td>
<td>Endemic to the Seychelles, the species qualifies as threatened by virtue of its restricted distribution. Populations are healthy and stable.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Syzygium zeylanicum var. ellipticum</td>
<td>Myrtaceae</td>
<td></td>
<td></td>
<td>EN B1+2c</td>
<td>India (Tamil Nadu)</td>
<td>A small tree, known only from the type collection taken from montane forest in the Agastymalai Hills. Large areas have been exposed to fires, grazing, the establishment of commercial plantations and cutting for fuelwood, but almost 1000km² of forest are now under protection within sanctuaries.</td>
<td>Assessor: World Conservation Monitoring Centre</td>
</tr>
<tr>
<td>Tabebuia anafensis</td>
<td>Bignoniaceae</td>
<td></td>
<td></td>
<td>VU B1+2c</td>
<td>Cuba</td>
<td>A shrub or small tree confined to Sierra de Anafe and other isolated limestone hills in Habana and Matanzas Provinces. There are active limestone quarries in this region.</td>
<td>Assessor: Areces-Mallea, A.E.</td>
</tr>
<tr>
<td>Tabebuia bibracteolata</td>
<td>Bignoniaceae</td>
<td></td>
<td></td>
<td>VU D2</td>
<td>Cuba</td>
<td>Confined to the northern karstic area of the Sierra Maesta in Santiago de Cuba Province, this uncommon shrub or small tree occurs locally in semi-deciduous and deciduous forest complex on eroded limestone.</td>
<td>Assessor: Areces-Mallea, A.E.</td>
</tr>
<tr>
<td>Tabebuia dubia</td>
<td>Bignoniaceae</td>
<td></td>
<td></td>
<td>VU B1+2c</td>
<td>Cuba</td>
<td>A canopy tree found mainly in montane serpentine rainforest thriving on acid ferrallitic soils in the Nipe-Baracoco Massif. The species is not yet uncommon but overexploitation and habitat disturbance have caused a decline in numbers. Logging, cutting and mining are constant threats.</td>
<td>Assessor: Areces-Mallea, A.E.</td>
</tr>
<tr>
<td>Tabebuia elongata</td>
<td>Bignoniaceae</td>
<td></td>
<td></td>
<td>EN B1+2c</td>
<td>Cuba</td>
<td>An uncommon tree endemic to the Nagua mountain group in Sierra Maesta.</td>
<td>Assessor: Areces-Mallea, A.E.</td>
</tr>
</tbody>
</table>
### Tabebuia furfuracea

**Bignoniaceae**  
*VU B1+2c*  
**Cuba**

A shrub or small tree confined to the Sierra de Nipe mountain complex in Holguín and Santiago de Cuba Provinces. Logging and cutting have resulted in habitat degradation in places.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980, 18485, 19149

### Tabebuia hypoleuca

**Bignoniaceae**  
*VU B1+2c*  
**Cuba**

A tree endemic to the montane rainforests of Sierra Maestra and other mountains in Guantanamo Province. The species is still fairly common but populations have declined over the past few decades.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980, 19149

### Tabebuia jackiana

**Bignoniaceae**  
*VU D2*  
**Cuba**

A small tree of subalpine deciduous forest on eroded limestone, restricted to the 'Inogote complex' in Pinar del Río Province.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980, 11403, 18485, 19149

### Tabebuia lapacho

**Bignoniaceae**  
*VU B1+2ac*  
**Argentina (Jujuy, Salta), Bolivia**

Although in the past the species has been placed in synonymy with *T. ochracea*, the most recent work suggests that it is a valid entity, endemic to the piedmont forest of north-west Argentina and Bolivia. The ecosystem is entirely unprotected and in rapid decline as agriculture expands.  
**Assessor:** Prado, D.  
**Refs:** 5112, 7980, 19122

### Tabebuia oligolepis

**Bignoniaceae**  
*VU B1+2c*  
**Cuba**

A species typically confined to the montane rainforests of the Sierra Maestra mountain range in Santiago de Cuba and Granma Provinces. This tree is not yet uncommon but habitat has been degraded in places and cutting is still a threat.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 11403, 18485, 19149

### Tabebuia platyantha

**Bignoniaceae**  
*LR/nt*  
**Jamaica**

A tree sparsely scattered in central and western parishes in woodland on limestone.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6057, 7980

### Tabebuia polymorpha

**Bignoniaceae**  
*VU B1+2c*  
**Cuba**

Populations of this shrub or small tree are confined to areas of bare limestone with dry littoral scrub woodlands on the coastal terraces and seaside karstic slopes of eastern Cuba. Its habitat has been severely degraded in places by burning and cutting.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980, 19149

### Tabebuia shafteri

**Bignoniaceae**  
*VU B1+2c*  
**Cuba**

A shrub or tree widespread in many forest types. Its habitat has been severely degraded in most places, especially in western and central Cuba. Cutting and clearing remains a threat in the remaining areas and in north-east Cuba mining is a major threat.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 7980, 19149

### Tabebuia striata

**Bignoniaceae**  
*VU C2a*  
**Colombia, Panama**

In Panama, the species is recorded as locally common around the base of the mountains in Puerto Obaldia in Kunayala Indigenous Reserve, near the Colombian border, and from the north-east of Darién Province. It is more widely distributed on the Pacific coast and in Antioquia in Colombia, although these populations are, apparently, not large. The whole area is not well studied botanically and it is possible the species is more widespread. There is also little human impact, although the cultivation of marijuana is increasing.  
**Assessor:** Mitte, M.  
**Refs:** 5335, 7272, 7980, 16772

### Tabernaemontana anthenonycta

**Apocynaceae**  
*VU B1+2c*  
**Brunei, Malaysia (Sabah, Sarawak)**

A shrub or small tree occurring in the understory of lowland forest up to 250m. So far it is known from a total of seven localities. In Brunei this species is confined to Mount Biang and in Sabah it is confined to Kota Kinabalu.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7745

### Tabernaemontana apoda

**Apocynaceae**  
*CR B1+2c*  
**Cuba**

A small tree or shrub, restricted to lowland areas and savanna in Sancti Spiritus Province. It has become rare, since much of the habitat has been converted to agricultural land or pastures.  
**Assessor:** Areces-Mallea, A.E.  
**Refs:** 11403, 18485, 19149

### Tabernaemontana cordata

**Apocynaceae**  
*VU A1c*  
**Philippines**

A forest understorey species, often found along creeks, endemic to Mindanao Is.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 7745

### Tabernaemontana cumata

**Apocynaceae**  
*EN B1+2c*  
**Brazil**

A small tree found on *terra firme* forest in the vicinity of Manaus.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 15491
Tabernaemontana gamblei
Apocynaceae
India (Kerala, Tamil Nadu)
An understory shrub or small tree which has been well collected in areas of submontane evergreen forest in the southern end of the Western Ghats, occurring from Anaimalai to the southern tip of the Agastyamalai Hills.
Assessor: World Conservation Monitoring Centre
Refs: 7745, 19144

Tabernaemontana heymana
Apocynaceae
India (Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu)
A shrub or small tree, endemic to lowland south-west India, found in bush or forest up to 600m.
Assessor: World Conservation Monitoring Centre
Refs: 7745

Tabernaemontana muriicata
Apocynaceae
Brazil (Amazonas)
A small tree or shrub found in non-inundated forest near Manaus, Amazonas.
Assessor: World Conservation Monitoring Centre
Refs: 15491

Tabernaemontana ochroleuca
Apocynaceae
Jamaica
A shrub or small tree which is localised in areas of hill forest between 300 and 500m on Dolphin Head, Hanover Parish.
Assessor: Kelly, D.L.
Refs: 401, 5653, 7980, 15491, 19085

Tabernaemontana oppositifolia
Apocynaceae
Puerto Rico
A shrub or small tree restricted to forest on limestone hills.
Assessor: World Conservation Monitoring Centre
Refs: 15491

Tabernaemontana ovalifolia
Apocynaceae
Jamaica
A small tree which is known from three collections taken from limestone hillsides on Dolphin Head, Hanover Parish.
Assessor: Kelly, D.L.
Refs: 401, 7980, 15491, 19085

Tabernaemontana persicariifolia
Apocynaceae
Mauritius, Réunion
A small tree distributed in areas of bush and forest from the coast to 1200m. It is very rare on Réunion but found in greater numbers on Mauritius, where it still survives in small area of relatively undisturbed dryland forest.
Assessor: Strahm, W.
Refs: 2000, 7745, 9120, 12470, 19208

Tabernaemontana polyneuro
Apocynaceae
Malaysia (Peninsular Malaysia)
A shrub or small tree inhabiting montane rainforest between 1000 and 1300m in Perak, Pahang, Selangor, Malacca. Populations are protected in Taman Negara National Park and within the permanent forest estate.
Assessor: Chua, L.S.L.
Refs: 8464, 19073

Tabernaemontana remota
Apocynaceae
Indonesia (Sulawesi), Papua New Guinea
A shrub or small tree up to 10m high, occurring in submontane scrub or forest. It is known from several collections from Sulawesi and Rossel Island of Papua New Guinea. The fragile ecosystem of Rossel Island is threatened by logging and mining activities.
Assessor: World Conservation Monitoring Centre
Refs: 7745, 19032

Tabernaemontana stenosiphon
Apocynaceae
São Tomé & Príncipe (São Tomé)
A common upland forest tree widely distributed over the island between 500 and 1600m. The species regenerates well.
Assessor: World Conservation Monitoring Centre
Refs: 2724, 7745, 19042

Tabernaemontana wullschlaegelii
Apocynaceae
Jamaica
Endemic to Jamaica, this shrub or small tree is found in forest on limestone between 350 and 900m in scattered localities throughout the island.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 15491

Tachigali tessmannii
Leguminosae
Peru
An Amazon forest species, apparently restricted to Amazonas and Loreto Departments.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Tahitia vescoana
Tiliaceae
French Polynesia (Society Is.)
An endemic of Tahiti.
Assessor: Florence, J.
Refs: 14513

Taiwania cryptomerioides
Taxodiaceae
China (Guizhou, Hubei, Sichuan, Yunnan), Myanmar, Taiwan
A large slow-growing tree from a monotypic genus, although the Chinese/Myanmar populations are frequently referred to as T. flousiana. It is widely scattered as an emergent in mid- to high-elevation forest, usually with Chamaecyparis species. Population have declined because of forest clearance and logging, exacerbated by poor regeneration. Plantations have now been established.
Assessor: SSC Conifer Specialist Group
Refs: 374, 6469, 11847, 19050, 19051

Takhtajania perrieri
Winteraceae
Madagascar
A monotypic genus, first discovered in 1909 in the north-west of the island. Attempts to find the species...
again had failed until a healthy population of about 250 trees was recently discovered in the Anjahanaribe-Sud Special Reserve in the north-east, 150km from the original locality.
Assessor: World Conservation Monitoring Centre
Refs: 19107, 19190

**Talbotiella eketensis**
Leguminosae
Nigeria
A swamp forest species, found only in south-east Nigeria. In Eket the habitat appears to have been almost completely destroyed because of oil exploration operations. Elsewhere levels of logging and clearing are high outside protected areas.
Assessor: World Conservation Monitoring Centre
Refs: 450, 2773, 7550, 11504

**Talbotiella gentii**
Leguminosae
Ghana
Endemic to Ghana, this evergreen tree occurs in tiny stands in rocky areas of dry forest. Records from Cameroon appear to be erroneous. The original area of dry forest has been extensively destroyed by incursions of people and subsequent exploitation of forested areas. This species is very slow-growing and does not seem to have a dispersal mechanism. It is considered to be the species with the highest conservation priority within Ghana.
Assessor: Hawthorne, W.
Refs: 2773, 8854, 12061

**Tannodia swynnertoni**
Euphorbiaceae
Mozambique, Tanzania, Zimbabwe
A number of small isolated populations exist. The Tanzanian population is confined to Mwanihana in the Udzungwa Mountains. In Zimbabwe, the species occurs in Chirinda forest, where it is a common understorey tree, and in the Vumba Mountains, near Mutare, where one or two individuals have been recorded. Poorly collected areas in Mozambique are expected to harbour additional populations.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5108, 6725, 10961

**Tapinopsis campanula**
Myrsinaceae
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

**Tapiphyllum schliebenii**
Rubiaceae
Tanzania
The entire population is restricted to Litipo Forest Reserve, which covers 10km². This is a unique, almost completely deciduous patch of coastal forest. Logging in the past has removed all valuable timbers and has now been banned. There is some pressure from pole and fuelwood collection inside the southern perimeter and also generally from the demand for land for the cultivation of cash crops in the surrounding area.
Assessor: Lovett, J. & G.P. Clarke
Refs: 10961, 16796

**Tapirira benthanniana**
Anacardiaceae
French Guiana
A newly described species of primary rainforest, endemic to French Guiana and principally found in the vicinity of La Fumée.
Assessor: World Conservation Monitoring Centre
Refs: 7980

**Tapirira chimalapana**
Anacardiaceae
Mexico (Oaxaca, Veracruz)
A common canopy tree, endemic to the Uxpanapa-Chimalapa area.
Assessor: World Conservation Monitoring Centre
Refs: 5651

**Tapiscia sinensis**
Staphyleaceae
China (Anhui, Fujian, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Sichuan, Zhejiang)
A widely occurring species sparsely distributed in the Yangtze River basin in moist forest, usually at stream-sides, on mountain slopes between 400 and 1600m. There is a long interval between fruiting seasons, which leads to naturally poor regeneration. Extensive disturbance, clearance and logging of the habitat have caused population declines over most of the species' range.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847

**Tapura arachnoidea**
Dichapetalaceae
Gabon
A small forest tree, which is known only from a small area near Lastoursville. The area is under exploitation and there is a serious likelihood that the species' habitat is already lost.
Assessor: World Conservation Monitoring Centre
Refs: 19043

**Tapura carinata**
Dichapetalaceae
Congo, Gabon
A species with a distinctive floral structure, known only from two collections from areas of closed forest. Further collecting may extend the distribution. There is concern about logging and the extent to which forest areas are now under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 7359, 14958

**Tapura ivorenensis**
Dichapetalaceae
Côte d'Ivoire, Ghana
A small tree confined to the restricted area of wet evergreen forest in Ghana and neighbouring Côte d'Ivoire. This forest has been affected by mining, logging and commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 8369, 8854, 12061

**Tapura letestui**
Dichapetalaceae
Congo, Gabon
A species of semi-deciduous forests, known only from two collections. It is possible that further collecting may extend the distribution. There is concern over logging
and the extent to which forest areas are now under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 7359, 14958

**Tapura neglecta**
Dichapetalaceae VU D2
Gabon
A small forest tree or shrub, which, at present, is known only from the two collections from Mandji and Ndjolé. It is possible that the species may be found to be more widespread. There is concern over logging and the extent to which forest areas are now under concession to logging companies.
Assessor: World Conservation Monitoring Centre
Refs: 7359, 15790, 19043

**Tapura orbicularis**
Dichapetalaceae VU B1+2c
Cuba
Known only from the montane edaphic climax shrubwoods and forests of Sierra de Nipe in Holguín Province, this rare tree is suffering from habitat destruction resulting from logging and mining activities.
Assessor: Arecas-Mallea, A.E.
Refs: 7980, 11403, 18485, 19149

**Tarakhtogenos annamensis**
Flacourtiaceae VU A1cd
China (Guangxi, Yunnan), Laos, Viet Nam
Populations in China are localised, occurring in Mengla, Jiangchen, Jingping, Hekou and Pingbian in south Yunnan and Longzhou in south-west Guangxi. The species is said to be relatively common in central and northern Viet Nam. No information is available on the populations in Laos. The lowland forest habitat has suffered large-scale clearance and conversion to agriculture. Medicine and oil are harvested from the seeds.
Assessor: World Conservation Monitoring Centre
Refs: 1818, 11847, 19055, 19061

**Tarenna agumbensis**
Rubiacceae EN B1+2c
India (Karnataka)
A small tree, collected four times from separate localities of evergreen forest in southern Karnataka.
Assessor: World Conservation Monitoring Centre
Refs: 14276, 19144

**Tarenna drummondii**
Rubiacceae VU B1+2b
Kenya, Tanzania
A small tree or shrub known from areas of coastal forest at Shimba, Mrima, Marene and Miongoni in Kenya and further south in east and north-east Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 6396, 8814

**Tarenna luhomeroensis**
Rubiacceae VU D2
Tanzania
Known only from the type, this tree occurs at Luhomero in moist forest at 1750m.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 10961

**Tarenna monosperma**
Rubiacceae EN B1+2c
India (Kerala, Tamil Nadu)
Poorly known, this shrubby species has been collected just three times from the Nilgiris, the Anamalai Hills and the Agastyamalai Hills.
Assessor: World Conservation Monitoring Centre
Refs: 427, 19144

**Tarenna nilagirica**
Rubiacceae VU B1+2c
India (Karnataka, Kerala)
A small tree of submontane forest, known from only a few collections, mainly from the Nilgiris but also from scattered localities extending into southern Karnataka.
Assessor: World Conservation Monitoring Centre
Refs: 19144

**Tarenna quadrangularis**
Rubiacceae VU B1+2b
Tanzania
An endemic from the Uluguru Mountains, restricted to upper moist evergreen forest.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

**Taxodium mucronatum**
Taxodiaceae DD
Guatemala, Mexico, USA (Texas)
Assessor: SSC Conifer Specialist Group
Refs: 374, 4974, 7395, 13041

**Taxus brevifolia**
Taxaceae LR/nt
Canada (Alberta, British Columbia), USA (Idaho, Montana, Oregon, Washington)
Native populations have been under considerable pressure from the scale of exploitation of the bark by pharmaceutical companies. Plantation sources are now available. The species occurs in various national parks in the north-west.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041, 18751

**Taxus floridana**
Taxaceae CR B1+2c
USA (Florida)
Populations are unhealthy and highly restricted, occupying an area of less than 10km². They occur along the Appalachian River on steep rocky bluffs. A lowering of the water table in this limestone area may be responsible for significant levels of stress and the lowering of immunity to fungal diseases in the members of the population.
Assessor: SSC Conifer Specialist Group
Refs: 374, 13041

**Taxus globosa**
Taxaceae LR/nt
Guatemala, Honduras, Mexico (Chiuhuahua)
In north-east Mexico the species is locally common. Some interest has been shown by pharmaceutical companies in its medicinal properties. There is no evidence of active exploitation.
Assessor: SSC Conifer Specialist Group
Refs: 374, 1539, 4974, 5470, 10217, 13041
Xylopia elliotii
Annonaceae VU A1c, B1+2c
Côte d’Ivoire, Ghana
A species restricted to small areas of wet evergreen forest in Ghana and neighbouring Côte d’Ivoire. This forest has declined through the effects of mining, logging and other commercial forestry activities.
Assessor: Hawthorne, W.
Refs: 8369, 12061

Xylopia hastarum
Annonaceae LR/nt
Jamaica
Declines have been recorded in population numbers. The species is relatively widespread in woodlands on limestone. The timber is widely used and the trees are frequently coppiced.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Xylopia lamarkkii
Annonaceae CR D1
Mauritius
An estimate of fewer than 250 individuals exist in upland scrub and heathland on Mare Longue Plateau, Macchabe, Mont Cocotte and Brise Fer in the south-west. Most areas are heavily invaded by exotic species and no regeneration is apparent. Le Florin and Le Petrin Nature Reserves, which hold small populations, are fenced and weeded.
Assessor: Page, W.
Refs: 1411, 9120, 16426

Xylopia latipetala
Annonaceae EN B1+2c
Tanzania
A single population is known and thought to be confined to the undisturbed areas within Rondo Forest Reserve (140km²). Large areas of the forest have been disturbed by logging, planting of commercial timbers, shifting cultivation and wood collection. Current forest management activities are discouraging the local exploitation.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 9302, 16796

Xylopia longifolia
Annonaceae EN C2a
Panama
Known only from the Canal zone, the species occurs in dense forest, largely within national parks. Despite the protected status of these populations, there is concern that growing population pressure will result in much of this habitat being destroyed.
Assessor: Mitré, M.
Refs: 7980, 16772

Xylopia pierrei
Annonaceae VU A1a
Cambodia, Viet Nam
Assessor: Ban, N.T.
Refs: 848, 19060

Xylopia richardii
Annonaceae VU B1+2c
Mauritius, Réunion
Generally a small shrub, but occasionally a tree, the species is scattered throughout scrub and transitional forest in south-west Mauritius. Regeneration is observed to be poor. Some populations, e.g. in Florin and Le Petrin Nature Reserves, are fenced and weeded of invasive species. Information on the population in Réunion has yet to be gathered.
Assessor: Page, W.
Refs: 1411, 2000

Xylopia talbotii
Annonaceae VU B1+2c
Nigeria
Populations of this forest tree were known in Eket and Oban. The latter is relatively well protected within the 3000km² of the southern division of the Cross River National Park. The former is likely to have been seriously or completely destroyed by oil exploration operations.
Assessor: World Conservation Monitoring Centre
Refs: 450, 2773, 11504

Xylosma boulindae
Flacourtiaceae VU D1
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma capillipes
Flacourtiaceae CR B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma crenatum
Flacourtiaceae CR C2a, D1
USA (Hawaii)
A tree of montane forest up to 1065m. Populations are known from Nualolo Trail, Kokee State Park, Napalikona Forest Reserve and Mahanaloa Valley, each consisting of between one and six individuals. Invasive plants and damage caused by feral pigs are major threats. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3572, 19038

Xylosma fawcettii
Flacourtiaceae LR/nt
Jamaica
The species has an occasional distribution in the central parishes in thickets and woodland on limestone.
Assessor: World Conservation Monitoring Centre
Refs: 6057, 7980

Xylosma glaberrimum
Flacourtiaceae DD
Brazil (Paraná, Rio de Janeiro, São Paulo)
The species is poorly known. Collections indicate that it occurs in *restinga* and other Atlantic forest types.
Assessor: Torres, R.B.
Refs: 19098, 19099

Xylosma grossescratum
Flacourtiaceae CR D1
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351
Xylosma inaequinvirum
Flacourtiaceae EN B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma kaalense
Flacourtiaceae VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma latifolium
Flacourtiaceae EN B1+2c
India (Karnataka, Kerala)
The type collection was taken from montane forest in the Bababudan range. An occurrence has also been recorded from Wayanad in Kerala.
Assessor: World Conservation Monitoring Centre
Refs: 19144

Xylosma molestum
Flacourtiaceae VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma obovatum
Flacourtiaceae EN B1+2c
Colombia
An endemic to Cesar.
Assessor: Calderon, E.
Refs: 7980, 19069

Xylosma pachyphyllum
Flacourtiaceae CR D1
Puerto Rico
A very rare dioecious tree, occurring in Cambalache forest in moist submontane limestone forest and in Maricao on serpentine gravel. Population estimates in 1989 were put at 14 individuals in total. There are threats from cutting, burning and the development of the area.
Assessor: World Conservation Monitoring Centre
Refs: 7980, 17124

Xylosma palawanense
Flacourtiaceae VU B1+2c
Philippines
A Palawan endemic, confined to remaining forest at low altitude. The main island of Palawan is a biosphere reserve.
Assessor: World Conservation Monitoring Centre
Refs: 4986

Xylosma peltatum
Flacourtiaceae CR B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma pininsulare
Flacourtiaceae CR B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma proctorii
Flacourtiaceae VU B1+2c
Jamaica
A Cockpit Country endemic, confined to areas of woodland on limestone in Manchester, St Ann and Trelawny Parishes.
Assessor: World Conservation Monitoring Centre
Refs: 5653, 7980

Xylosma ruizianum
Flacourtiaceae DD Peru
A species known only from the type specimen, which is recorded with no specific location.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Xylosma serpenetinum
Flacourtiaceae VU B1+2c
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylosma suaveolens ssp. haroldii
Flacourtiaceae EN D1
Pitcairn Islands
A dioecious tree, often partially decumbent, endemic to Henderson. The taxon on the Pitcairn Islands has yet to be determined. On Henderson, it is widespread in plateau forest and drier areas. The population on Pitcairn has declined through habitat loss and cutting. Very few individuals there are expected to survive. The total population is estimated to be about 10,000 trees. Seeds are dispersed by the endemic fruit dove on Henderson but on Pitcairn there is a distinct lack of frugivorous birds. Henderson Island is a World Heritage Site.
Assessor: Waldren, S. & N. Kingston
Refs: 8306, 13604, 19154

Xylosma tuberculatum
Flacourtiaceae VU D2
New Caledonia
Assessor: Jaffré, T. et al.
Refs: 10351

Xylotheca tetensis var. fissistyla
Flacourtiaceae VU B1+2b
Tanzania
This may only be a form of the more widespread var. kirikii rather than a distinct variety. It is known only from small areas of coastal forest at Bagamaya and in the Pugu Hills, close to Dar es Salaam. Both areas are disturbed by various human activities. The Pugu Forest Reserve has an active conservation programme.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 5020, 5204

Zanthoxylum albuerquei
Rutaceae VU B1+2c
Peru
Known only from the type collection, the species occurs in Amazon forests in Ucayali.
Assessor: World Conservation Monitoring Centre
Refs: 1984

Zanthoxylum atchoum
Rutaceae VU B1+2c
Côte d’Ivoire
A Côte d’Ivoire endemic, this species occurs commonly
in wet evergreen forest. The rate of decline of in the extent of these forests has been severe in the last few decades, largely because of logging. Remaining forested areas are small and generally confined to protected areas, especially Tai National Park.

Assessor: Assi, A.
Refs: 12822

Zanthoxylum belizense
Rutaceae EN A1c, C2a
Belize, Costa Rica, Guatemala, Honduras, Mexico, Nicaragua, Panama
A tree of wet forest and thickets in the Atlantic lowlands.
Assessor: Nelson, C.
Refs: 13995

Zanthoxylum brieyi
Rutaceae VU D2
Democratic Republic of Congo
Little is known about the population of this species other than that it occurs in Luki Reserve in Mayombe. The surrounding areas are heavily populated and pressures caused by logging, charcoal production and agricultural encroachment are severe.
Assessor: Ndjele, M.B.
Refs: 17951

Zanthoxylum chevalieri
Rutaceae VU A1c, B1+2c
Ghana
Not commonly recorded, this species occurs in evergreen forest in rocky or upland areas in the Upper Guinea region. The habitat has suffered from the effects of farming, fire, certain forestry management systems and large-scale mining.
Assessor: Hawthorne, W.
Refs: 8369, 12061

Zanthoxylum deremense
Rutaceae VU B1+2b
Malawi, Tanzania
A species of moist forest of medium to high elevations. There are populations in parts of eastern Tanzania and Malawi.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Zanthoxylum dipetalum var. dipetalum
Rutaceae LR/nt
USA (Hawaii)
The commoner variety of the two which are recognised. Populations are found on Kauai, Oahu, Molokai and Hawaii in dry to moist forest from low to medium elevation. Its wood was of great value in the past for resonant kapa logs which were beaten for the purpose of long-distance communication.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Zanthoxylum dipetalum var. tomentosum
Rutaceae CR B1+2c, C2ab, D1
USA (Hawaii)
This variety is considerably rarer than the type variety. It is known from approximately 24 individuals scattered on lava fields at Puuwaawaa in North Kona District on Hawaii. There are persistent threats from grazing ungulates and spreading invasive plants. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 3372, 19037

Zanthoxylum fagara ssp. aguilari
Rutaceae EN C2a
Guatemala, Honduras
A species of moist forest or thickets in ravines or sometimes dry hillside.
Assessor: Nelson, C.
Refs: 13995

Zanthoxylum ferrugineum
Rutaceae EN C2a
Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama
A species of dry to humid pine forest, at middle elevations.
Assessor: Nelson, C.
Refs: 13995, 14487, 18416

Zanthoxylum flavum
Rutaceae VU A1c
Anguilla, Bahamas, Bermuda, Brazil (Amazonas), Cuba, Dominican Republic, Honduras, Jamaica, Puerto Rico, St Lucia, USA (Florida)
A shrub or tree up to 15m tall, occurring in thickets and woodland on rocky limestone. In Central America the species is represented by a single collection from Swan Island, Honduras. The species has been heavily exploited for its timber over a long period on all the West Indian islands. Stands are now largely depleted of mature trees and the timber is extremely rare in international trade.
Assessor: Areces-Mallea, A.E.
Refs: 3786, 6057, 13947, 13995, 19149, 19188

Zanthoxylum gentiei
Rutaceae EN C2a
Belize, Guatemala, Honduras
A species, of somewhat dubious nomenclature, occurring in humid forest in the Atlantic lowlands.
Assessor: Nelson, C.
Refs: 4974, 13995

Zanthoxylum harrisii
Rutaceae VU B1+2c
Jamaica
Until now, the species has been found only in low numbers in an area of humid woodland at 1060m in Portland Parish. Observations in the 1980s also indicated that it may occur in Clarendon Parish.
Assessor: Kelly, D.L.
Refs: 401, 3932, 5653, 19085

Zanthoxylum hartii
Rutaceae VU B1+2c
Jamaica
A species restricted to John Crow Peak, where it can be common or locally dominant on karst limestone near the summit. A few individuals were found on shale close to the limestone bluffs of the peak.
Assessor: Kelly, D.L.
Refs: 401, 3932, 4089, 5653, 19085
Zanthoxylum hawaiiense
Rutaceae
USA (Hawaii)
A species scattered mainly in dry forest on lava flows up to 1740m on Kauai, Molokai, Lanai, Maui and Hawaii. At least 11 populations are said to remain on four of the islands, amounting to over 250 individuals. The majority of them are found on Hawaii at Puuwaawaa and Pohakuula and areas in between. Competition with alien plants and feral and domesticated grazers continues to put pressure on the remaining populations. The species is protected by the US Endangered Species Act.
Assessor: World Conservation Monitoring Centre
Refs: 19039

Zanthoxylum heterophyllum
Rutaceae
CR C2a
Mauritius (Mauritius, Rodrigues), Réunion
On Mauritius a population of fewer than 50 adult trees is estimated to exist in fragmented subpopulations in Trou du Douce on the east coast and Brise Fer Mountain in the south-west. Habitat degradation and the spread of invasive species appear to be limiting regeneration. More information is needed on the populations elsewhere.
Assessor: Page, W.
Refs: 1411, 2000, 9120, 9426, 12470, 16426

Zanthoxylum holtsianum
Rutaceae
VU B1+2d, D2
Tanzania
Only four collections of this subspecies have been recorded from remaining areas of dry coastal forest or bushland in south-east Tanzania.
Assessor: Lovett, J. & G.P. Clarke
Refs: 2361, 3356

Zanthoxylum integrifoliolum
Rutaceae
DD
Philippines, Taiwan
In Taiwan, the species is restricted to forest areas on Lanyu Island. Fewer than 250 individuals are thought to be in existence here.
Assessor: World Conservation Monitoring Centre
Refs: 6469, 19053

Zanthoxylum kauaense
Rutaceae
LR/nt
USA (Hawaii)
Relatively widespread, the species occurs in forest of various types over a wide altitudinal range on all the main islands except Niihau and Kaho'olawe.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Zanthoxylum lindense
Rutaceae
VU B1+2b
Tanzania
Known from Mafia Island and parts of south-east Tanzania, this sometimes scandent small tree or shrub occurs in dry coastal forest or bushland.
Assessor: Lovett, J. & G.P. Clarke
Refs: 3356, 8814

Zanthoxylum nadeaudii
Rutaceae
DD
French Polynesia (Society Is.)
Populations are recorded from Raiatea, Tahaa and Tahiti.
Assessor: Florence, J.
Refs: 14513

Zanthoxylum nepriense
Rutaceae
EN B1+2c
Jamaica
Known only from Westmoreland Parish, the species occurs locally in woodland on rocky limestone.
Assessor: Kelly, D.L.
Refs: 401, 3932, 5653

Zanthoxylum oahuense
Rutaceae
VC2a
USA (Hawaii)
A small tree of lowland rainforest confined to the Koolau Mountains on Oahu.
Assessor: World Conservation Monitoring Centre
Refs: 3372

Zanthoxylum panamense
Rutaceae
EN C2a
Costa Rica, Honduras, Panama
A species of uncertain nomenclature, found in monsoon forest and semi-evergreen forest mainly on the Caribbean side.
Assessor: Nelson, C.
Refs: 13995

Zanthoxylum penjaluensis
Rutaceae
CR B1+2c
Indonesia (Java)
Few collections have been made of this species and they are all confined to Penjalu in forest at 720m. The habitat at this elevation has been almost completely cleared and pressures on remaining areas continue to be extreme.
Assessor: World Conservation Monitoring Centre
Refs: 9078

Zanthoxylum procerum
Rutaceae
EN C2a
Belize, Costa Rica, Guatemala, Honduras, Mexico, Nicaragua, Panama
Found on both sides of the continental divide, this species occurs in monsoon or semi-evergreen forest and cloud forest.
Assessor: Nelson, C.
Refs: 13995

Zanthoxylum psammophilum
Rutaceae
EN B1+2c
Côte d'Ivoire
A species which is rare and endemic to coastal forest in Côte d'Ivoire. A significant part of these forests has been cleared and degraded.
Assessor: Assi, A.
Refs: 12822

Zelkova abelicea
Ulmaceae
VU B1+2ce, D2
Greece (Crete)
A small tree endemic to Crete, occurring in small numbers in 15–20 localities on the three main mountain massifs, especially at the south-east corner of the Omalós Plain. There are differences of opinion as to
whether the extent of the species' occurrence is regressing or not. There is no doubt that grazing goats have a strong impact in places, but it has lessened over the past 80 years and the trees regenerate well by suckering. All shepherds' crooks in west Crete are made from the wood.

**Assessor:** World Conservation Monitoring Centre  
**Refs:** 1890, 5287, 7222, 16500, 19018, 19019

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**Zelkova carpinifolia**  
**Ulmaceae**  
Armenia, Azerbaijan, Georgia, Iran, Turkey  
**Assessor:** Güner, A. & J. Zielinski  
**Refs:** 1956, 3489, 19165

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**Zelkova sicula**  
**Ulmaceae**  
Italy (Sicily)  
Between 200 and 250 individuals exist in a single remote population extending 200m along the banks of a stream on the northern slopes of the Iblei Mountains. The area is now fenced to prevent grazing and any other damage. Few flowering individuals have been seen in the last six years and the fruit produced appears to be sterile. Reproduction is largely vegetative.  
**Assessor:** Garfi, G.  
**Refs:** 6510, 19150, 19151

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**Zenia insignis**  
**Leguminosae**  
China (Guangdong, Guangxi, Guizhou, Hunan, Yunnan), Viet Nam  
A large tree concentrated in limestone areas at low elevation. Populations are widespread throughout southern China and in several of the northern provinces of Viet Nam. In China constant overcutting of the tree and its habitat has resulted in the species becoming scarce. The species is apparently not specifically exploited in Viet Nam but is uncommon. It is the only member of the genus.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 848, 18118, 8911, 11847, 15357, 19055, 19061

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**Zenkerella capparidacea ssp. capparidacea**  
**Leguminosae**  
Tanzania  
The type subspecies of a Tanzanian endemic. Populations are known from the Uluguru Mountains and South Nguru Mountains, where they are restricted to moist montane forest above 1430m.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 5204, 8814

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**Zenkerella capparidacea ssp. grotei**  
**Leguminosae**  
Tanzania  
The more northerly distributed subspecies of this montane forest tree. Populations are known from the East and West Usambara Mountains.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 5204, 8814

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**Zenkerella egregia**  
**Leguminosae**  
Tanzania  
A lowland forest species, restricted to the remaining forested areas at the foot of the East Usambara Mountains, Kimboza Forest Reserve at the foot of the Uluguru Mountains and possibly also in South Nguru.  
These forests have declined heavily in the past because of the increasing clearing of land for agriculture. Continuing declines are prevented by the presence of forest guards and active conservation programmes.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 5204, 10961, 11631

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**Zenkerella perplexa**  
**Leguminosae**  
Tanzania  
Known from only two sites this tree occurs in the Uluguru Mountains and Malundwe in areas of moist evergreen forest at medium elevations.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814, 11631

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**Zeyheria tuberculosa**  
**Bignoniaceae**  
Brazil (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)  
This pioneer species is found in rainforest, dry forest and *cerrado* in south-east Brazil. This region is threatened by encroaching agriculture, ranching and charcoal production, which is causing a decline in this species.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 4506

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**Ziera chevolieri**  
**Rutaceae**  
New Caledonia  
**Assessor:** Jaffré, T. et al.  
**Refs:** 10351

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**Zimmermannia capillipes**  
**Euphorbiaceae**  
Tanzania  
The only populations known occur in areas of moist evergreen submontane forest in the East Usambara Mountains.  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 2074, 3356

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**Zimmermannia nguruensis**  
**Euphorbiaceae**  
Tanzania  
**Assessor:** Lovett, J. & G.P. Clarke  
**Refs:** 3356, 8814

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**Zimmermannia ovata**  
**Euphorbiaceae**  
Kenya  
Endemic to the drier parts of Ngango forest in the Taita Hills, the species is known only from a small population containing few individuals. A population estimate may indicate that a more serious threat category is appropriate. Natural regeneration is not evident. The Plant Conservation Programme in Kenya is monitoring the species.  
**Assessor:** World Conservation Monitoring Centre  
**Refs:** 6396, 17859
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Family</th>
<th>Status</th>
<th>Location</th>
<th>Description</th>
<th>Refs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zimmermannia stipularis</strong></td>
<td>Euphorbiaceae</td>
<td>VU B1+2b</td>
<td>Tanzania</td>
<td>Restricted to eastern Tanzania, this species is found at Mangalisa, Mwapwpa and Sao Hill in a montane dry forest habitat.</td>
<td>Assessor: Lovett, J. &amp; G.P. Clarke Refs: 3356, 8814</td>
</tr>
<tr>
<td><strong>Zinowiewia costaricensis</strong></td>
<td>Celastraceae</td>
<td>LR/nt</td>
<td>Belize, Costa Rica, Nicaragua, Panama</td>
<td>In Panama, the species appears to be at the limits of its range, occurring only rarely in Chiriquí. In other Central American countries the species is widespread in lowland evergreen rainforest between 1000 and 2500m. Most of the high-altitude locations are protected.</td>
<td>Assessor: Mitré, M. Refs: 358, 3156, 9076, 15037, 16772</td>
</tr>
<tr>
<td><strong>Zinowiewia micrantha</strong></td>
<td>Celastraceae</td>
<td>DD</td>
<td>Panama</td>
<td>The species is known only from the type collection, which originated from an area of Boquete, in Chiriquí, above 2000m. The taxonomic status of the species is doubtful. Only the other Zinowiewia specimens collected in the area are of Z. costaricensis.</td>
<td>Assessor: Mitré, M. Refs: 7980, 15037, 16772</td>
</tr>
<tr>
<td><strong>Ziziphus celata</strong></td>
<td>Rhamnaceae</td>
<td>VU D1</td>
<td>USA (Florida)</td>
<td></td>
<td>Assessor: World Conservation Monitoring Centre Refs: 19164</td>
</tr>
<tr>
<td><strong>Ziziphus hutchinsonii</strong></td>
<td>Rhamnaceae</td>
<td>VU A1d</td>
<td>Philippines</td>
<td>An endemic species to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.</td>
<td>Assessor: World Conservation Monitoring Centre Refs: 2072, 4919</td>
</tr>
<tr>
<td><strong>Ziziphus mistol</strong></td>
<td>Rhamnaceae</td>
<td>DD</td>
<td>Argentina (Catamarca, Chaco, Córdoba, Corrientes, Formosa, Jujuy, La Rioja, Salta, Santa Fé, Santiago del Estero, Tucumán), Bolivia, Paraguay</td>
<td>Widespread and widely used, the species occurs within an area of considerable human disturbance in dry subtropical forest in the Chaco.</td>
<td>Assessor: Prado, D. Refs: 1262, 7980</td>
</tr>
<tr>
<td><strong>Ziziphus pubescens ssp. glabra</strong></td>
<td>Rhamnaceae</td>
<td>DD</td>
<td>Mozambique</td>
<td>Little information is available on this endemic of Mozambique. Few collections have been made.</td>
<td>Assessor: Bandeira, S. Refs: 5117, 18965</td>
</tr>
<tr>
<td><strong>Ziziphus robertsoniana</strong></td>
<td>Rhamnaceae</td>
<td>EN B1+2abcde</td>
<td>Kenya, Tanzania</td>
<td>Occurring in areas of moist semi-deciduous coastal forest, the species is recorded from Kaya Diani, Gongoni Forest Reserve, Kaya Dzombo, Chale Island and Kaya Kinondo. More information is needed on the Tanzanian population. The loss and degradation of coastal forest continues at an alarming rate.</td>
<td>Assessor: CAMP Workshop in Kenya Refs: 6396, 19181</td>
</tr>
<tr>
<td><strong>Ziziphus talanai</strong></td>
<td>Rhamnaceae</td>
<td>VU A1d</td>
<td>Philippines</td>
<td>A timber species, endemic to the Philippines. Rates of habitat loss through logging and shifting cultivation have led to considerable population declines.</td>
<td>Assessor: World Conservation Monitoring Centre Refs: 2072, 4919</td>
</tr>
<tr>
<td><strong>Zollingeria borneensis</strong></td>
<td>Sapindaceae</td>
<td>CR B1+2c</td>
<td>Malaysia (Sabah)</td>
<td>A large, very distinctive tree known only from a few collections near Tawau. There is a possibility that this species is extinct, as it is suspected that the locality has been deforested.</td>
<td>Assessor: Adema, F. Refs: 18389, 19047</td>
</tr>
<tr>
<td><strong>Zollingeria dongnaiensis</strong></td>
<td>Sapindaceae</td>
<td>DD</td>
<td>Thailand, Viet Nam</td>
<td>In Viet Nam, the species is known from only two localities, one on the mainland in Bien Hoa and the other on the island of Con Son.</td>
<td>Assessor: World Conservation Monitoring Centre Refs: 848</td>
</tr>
<tr>
<td><strong>Zygia lehnmannii</strong></td>
<td>Leguminosae</td>
<td>EN B1+2c</td>
<td>Colombia</td>
<td>The species is known from Cauca according to confirmed records and from Valle from less definite records.</td>
<td>Assessor: Calderon, E. Refs: 19069</td>
</tr>
<tr>
<td><strong>Zygia oriunda</strong></td>
<td>Leguminosae</td>
<td>VU D2</td>
<td>Peru</td>
<td>Known only from the type collection, the species occurs in lowland Amazon forest in Loreto.</td>
<td>Assessor: World Conservation Monitoring Centre Refs: 1984</td>
</tr>
<tr>
<td><strong>Zygogynum cristatum</strong></td>
<td>Winteraceae</td>
<td>VU B1+2c</td>
<td>New Caledonia</td>
<td>A notable species on account of its large flowers and numerous petals. It is known from just two upland locations on ultramafic soils in the region of Kououa at Méri Ori and Aréha. The area is unprotected and exposed to threats from mining activities, fires and habitat clearance.</td>
<td>Assessor: Jaffré, T. et al. Refs: 10351, 12630</td>
</tr>
</tbody>
</table>
Zygogynum oligostigma  
Winteraceae  
New Caledonia  
Only a small tree or shrub. It is known from just two collections from the Kouaoua area in relict lowland forests and maquis on ultramafic substrate. The area is unprotected and exposed to threats from fire, mining activities and habitat clearance.  
Assessor: Jaffré, T. et al.  
Refs: 10351, 12630

Zygogynum tanyostigma  
Winteraceae  
New Caledonia  
A small tree from wooded slopes on Mont Panié, collected infrequently at various altitudes. Although the area is given the status of a botanical reserve, it is thought that these plant populations are given insufficient protection.  
Assessor: Jaffré, T. et al.  
Refs: 10351, 12630
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<tr>
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<tr>
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<tr>
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</tr>
</tbody>
</table>


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<table>
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<th>Page</th>
<th>Reference</th>
</tr>
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</table>

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APPENDIX 1

GLOBALLY THREATENED TREE SPECIES OF AUSTRALIA

This list of globally threatened trees species of Australia has been prepared by Lyn Meredith, Threatened Species and Communities Section, Environment Australia. The species included are those which have a conservation rating which equate with the pre 1994 IUCN categories of E (Endangered) and V (Vulnerable). The species list is derived from Briggs, J. and Leigh, J. (1996) Rare or threatened Australian plants. CSIRO, Melbourne. 466pp. This national listing, ROTAP, includes approximately 5,000 taxa of Australian native plants. ROTAP uses a binary coding system for categorising threat developed and refined over several years but based on the IUCN categories. Species in the supporting ROTAP database have been flagged as trees for inclusion in this Appendix to The World List of Threatened Trees. Environment Australia has commenced compiling a list of nationally threatened Australian plants according to the 1994 IUCN categories and criteria, in cooperation with Australia’s state conservation agencies.

| Acacia araneosa         | Eucalyptus argutifolia          | Eucalyptus lateritia |
| Acacia auriculiformis   | Eucalyptus articulata           | Eucalyptus leprophloia |
| Acacia caerulescens     | Eucalyptus balanites            | Eucalyptus leptoloma  |
| Acacia cunea            | Eucalyptus beaniana             | Eucalyptus mckieana   |
| Acacia cretacea         | Eucalyptus beardiana            | Eucalyptus merrickiae |
| Acacia crombien         | Eucalyptus bennettiae           | Eucalyptus moreana    |
| Acacia georgensis       | Eucalyptus benthamii            | Eucalyptus morrisbyi  |
| Acacia grandifolia      | Eucalyptus blaxellii            | Eucalyptus nicholii   |
| Acacia latii            | Eucalyptus brevipes             | Eucalyptus olivacea   |
| Acacia perangusta       | Eucalyptus budrettiana          | Eucalyptus paedoglauc |
| Acacia peuce            | Eucalyptus cadens               | Eucalyptus parramattensis ssp. |
| Acacia pubifolia        | Eucalyptus caleyi ssp. ovendenii| Eucalyptus parramattensis ssp. |
| Acacia wardellii        | Eucalyptus camfieldii           | Eucalyptus paedoglauc |
| Acronychia littoralis    | Eucalyptus camphora ssp. relictta| Eucalyptus phylacis   |
| Alloxyylon flammeum     | Eucalyptus cannonii             | Eucalyptus platydica  |
| Archidendron lovelliae  | Eucalyptus ceracea              | Eucalyptus pruiniramis|
| Archontophoenix myolensis| Eucalyptus cerasiformis         | Eucalyptus pulvurinata|
| Austromyrtus fragrantissima| Eucalyptus clandestina         | Eucalyptus pumila     |
| Bologhia marmorata      | Eucalyptus conglomerata         | Eucalyptus ravertiana |
| Banksia brownii         | Eucalyptus copulans             | Eucalyptus recurva    |
| Banksia verticillata    | Eucalyptus coronata             | Eucalyptus rhodanthe  |
| Bosistoa selwynii       | Eucalyptus crenulata            | Eucalyptus rhodanthe var., petiolaris |
| Bosistoa transversa     | Eucalyptus crispata             | Eucalyptus rhodanthe var., petiolaris |
| Canarium acutifolium var., acutifolium| Eucalyptus rhodanthe var., petiolaris |
| Codonocarpus pyramidalis| Eucalyptus crus ssp. crucis     | Eucalyptus robertsonii ssp. |
| Cryptocarya foetida     | Eucalyptus crus ssp. praecipua  | Eucalyptus robertsonii ssp. |
| Cupaniopsis tomentella  | Eucalyptus cuprea               | Eucalyptus rubida ssp. barbigerorum |
| Davidsonia pruins var. | Eucalyptus dolorosa             | Eucalyptus rubida ssp. canobolensis |
| jerseyana               | Eucalyptus glaucina             | Eucalyptus rubida ssp. septemflora |
| Diospyros maboea        | Eucalyptus goniantha ssp. goniantha| Eucalyptus scoparia |
| Diplogloittis campbellii| Eucalyptus hallii               | Eucalyptus steedmanii |
| Endiandra cooperiana    | Eucalyptus inlayensis           | Eucalyptus strzeleckii|
| Endiandra floydii       | Eucalyptus impensa              | Eucalyptus suberea    |
| Endiandra hayesi        | Eucalyptus infera               | Eucalyptus synandra ssp. synandra |
| Eucalyptus absita       | Eucalyptus insularis            | Eucalyptus terrica    |
| Eucalyptus alligatris ssp. limaensis| Eucalyptus tetrapeura         | Eucalyptus virens     |
| Eucalyptus aquatica     | Eucalyptus johnsoniana          | Eucalyptus xanthope    |
| Eucalyptus argophloia   | Eucalyptus karnoffiana          | Eucalyptus xanthope    |
|                         | Eucalyptus langleyi             | Eucalyptus xanthope    |
|                         | Eucalyptus lateritica           | Eucalyptus xanthope    |
|                         | Eucalyptus leprophloia          | Eucalyptus xanthope    |
|                         | Eucalyptus leptoloma            | Eucalyptus xanthope    |
|                         | Eucalyptus mckieana             | Eucalyptus xanthope    |
|                         | Eucalyptus merrickiae           | Eucalyptus xanthope    |
|                         | Eucalyptus moreana              | Eucalyptus xanthope    |
|                         | Eucalyptus morrisbyi            | Eucalyptus xanthope    |
|                         | Eucalyptus nicholii             | Eucalyptus xanthope    |
|                         | Eucalyptus olivacea             | Eucalyptus xanthope    |
|                         | Eucalyptus paedoglauc           | Eucalyptus xanthope    |
|                         | Eucalyptus parramattensis ssp.  | Eucalyptus xanthope    |
|                         | decades                          | Eucalyptus xanthope    |
The World List of Threatened Trees

Fontainea australis
Fontainea oraria
Fontainea venosa
Hakea trineura
Jagora javanica ssp. australiana
Livistona drudei
Livistona mariae
Lomatia tasmanica
Macadamia integrifolia
Macadamia ternifolia

Macadamia tetraphylla
Macaranga polyadenia
Mitrantia bilocularis
Musa fitzalanii
Normanbya normanbyi
Ochrosia moorei
Oreodendron biflorum
Owena cepiodora
Planchonella eerwah
Pomaderris parrisiae

Ristaria gouldii
Symplocos baueerlenii
Syzygium hodgkinsoniae
Syzygium moorei
Toechima pterocarpum
Wodyetia bifurcata
Wollemia nobilis
Xanthostemon oppositifolius
Xanthostemon youngii
APPENDIX 2

GLOBALLY THREATENED TREE SPECIES OF JAPAN

This list comprises tree species taken from the 1997 Red List of Japanese Vascular Plants compiled by the Threatened Species Committee, Japan Society of Plant Taxonomists; Yahara, T., Kato, T., Inoue, K., Yokota, M., Kadono, Y., Serizawa, S., Takahashi, H., Kawakubo, N., Nagamasu, H., Suzuki, K., Ueda, K. and Kadota, Y. The species have been evaluated as globally threatened (EW, CR, EN or VU) according to the 1994 IUCN Red List Categories.

Abelia chinensis var. ionandra
Acer miyabei
Acer miyabei var. shibatai
Acer obtongum var. obtongum
Acer pycnanthum
Ardisia montana
Barringtonia asiatica
Betula chichibuensis
Betula dawurica
Betula ovalifolia
Bredia okinawensis
Brenvina formosana
Bryanthus smelani
Buxus liukiuensis
Buxus microphylla var. sinica
Buxus microphylla var. insularis
Callicarpa formosana
Callicarpa kochiana
Callicarpa longissima
Callicarpa nishimurae
Callicarpa oshimensis var. okinawensis
Callicarpa shikokiana
Caryopyrus incana Celsis biondii var. insularis
Chamaedaphne calyculata
Chionanthus retusus
Choeaeopsisias asxilaris var. japonica
Choena arbutfolia
Cinnamomum daphnoides
Citrus nippokoreana
Citrus tachibana
Claoxylon centenarium
Colubrina asiatica
Corylopsis glabrescens
Corylopsis gotoana var. pubescens
Corylopsis spicata
Crateagus chlorosarca
Crepidiastrum aristatumphylum
Crepidiastrum lingusifolium
Cryptocarya chinensis
Cyclobalanopsis honade
Daphne pseudo-mezeum var. koreana
Daphnimorpha capitellata

Dendrococalia crepidifolia
Deutzia uniflora
Diospyros eriantha
Diplomorpha pauciflora
Discocleidion ilmitifolium
Drypetes integerrima
Elaeagnus matsumoana var. hyposellata
Entada phaseoloidea
Euchresta formosana
Euonymus chibai
Euonymus olospermus
Euonymus yakushimensis
Eurya emarginata var. minutissima
Eurya zigzag
Evodia nishimurae
Fatsia oligocarpa
Ficus idiata
Forstyha togashii
Gardenia boninensis
Gardneria sitmadama
Geniostoma glabra
Grewia biloba
Hydrangea involuculata var.takaraensis
Hydrangea liukiensis
Hydrangea serrata var. minamitani
Ilex beecheyi
Ilex dimophylla
Ilex macrocarpa
Ilex matanoana
Ilex mertenzii
Illgeria luzonensis
Jasminum superflum
Juniperus sibirica
Lagerstroemia subcostata
Lespedeza bicolor var. melanantha
Ligustrum tamakii
Lindera communis var. okinawensis
Lonicera alpigena ssp. glehni
Lonicera alpigena ssp. glehni var. viridisima
Lonicera cerasina
Lonicera chamusso
Lonicera chrysantha var. crassipes
Lonicera demissa var. borealis

Lonicera linderfolia
Lonicera linderfolia var. konoi
Lonicera maackii
Lonicera maximowiczii var. sachalinensis
Lonicera ramossissima var. kinkiensis
Lonicera vidali
Loropetalum chinense
Magnolia pseudokobus
Magnolia tomentosa
Malus spontanea
Maytenus diversifolia
Melastoma pentapetalum
Melastoma tetramerum
Menziesia goyozanensis
Menziesia multiflora var. purpurea
Menziesia purpurea
Menziesia yakushimensis
Metrosideros boninensis
Morinda umbellata var. hahazimensis
Morus boninensis
Murraya koenigii
Myoporum bontoides
Myrsine okabaeana
Osbeckia chinensis
Osmanthus okinawensis
Osteomeles anthyllifolia
Paliurus ramosissimus
Phottinia serrulata
Phottiniawrightiana
Picea koyamae
Picea maximowiczii
Picea shirasawae
Pieris japonica var. koidzumiana
Pinus armandii var. amamiensis
Pittosporum beeheyi
Pittosporum chichijimense
Pittosporum parvifolium
Planchonella boninensis
Planchonella obovata var. dubia
Polyalthia liukiensis
Prunus incisa var. bukasanensis
Pseudotsuga japonica
Psychotria homalo sperma
Rhamnella franguloides var. inaequaliatera
Rhamnus calicicola  
Rhamnus hishidae  
Rhamnus yoshinoi  
Rhododendron amagianum  
Rhododendron amamiense  
Rhododendron boninense  
Rhododendron dauricum  
Rhododendron degronianum ssp. metternichii var. kyomaruense  
Rhododendron dilatatum var. boreale  
Rhododendron dilatatum var. satsumense  
Rhododendron eriocarpum var. tawadae  
Rhododendron keiskei var. hypoglauca  
Rhododendron kiyosmense ssp. mayebara  
Rhododendron kiyosmense ssp. mayebara var. okuimensense  
Rhododendron komiyamae  
Rhododendron makinoi  
Rhododendron mucronulatum var. ciliatum  
Rhododendron nudipes var. kirishimense  
Rhododendron osuzuyamense  
Rhododendron parvifolium  
Rhododendron pentaphyllum var. villosum  
Rhododendron sanctum  
Rhododendron sanctum var. lasiogynum  
Rhododendron scabrum  
Rhododendron uwaense  
Rhododendron yokuinsulare  
Rhododendron yedoense var. pooukanense  
Rhus javanica  
Ribes ambiguum  
Rosa hirtula  
Rubus chinii  
Rubus lamberitianus  
Rubus tawadanus  
Salix hidaka-montana  
Salix hukaoana  
Salix nummularia ssp. pauciflora  
Salix rupifraga  
Salix taraikensis  
Salix yeazolpina  
Sophora franchetiana  
Sophora tomentosa  
Spiraea media var. sericeo  
Spiraea nipponica var. ogawae  
Spiraea salicifolia  
Stachyum macrocarpus  
Symplocos boninensis  
Symplocos confusa  
Symplocos kawakami  
Symplocos pergracilis  
Syzygium cleyeraefolium  
Terminalia nitens  
Tilia mandshurica  
Tilia rufo-villosa  
Tripterygium doianum  
Tsusiiophyllum tanakae  
Vaccinium amamianum  
Vaccinium microcarpum  
Vaccinium sieboldii  
Viburnum boninsimense  
Viburnum carlesii  
Viburnum koreanum  
Vitex quinata  
Vitis amurenensis var. shiragai  
Vitis quinqueangularis  
Weigela florida  
Wikstroemia pseudoretusa  
Zabelia integrifolia
The 1997 IUCN Red List of Threatened Plants, published this year, includes tree species which are categorised as threatened according to the pre 1994 IUCN Red List Categories. Although the list was used as a basis for the work to compile The World List of Threatened Trees, not all of the tree taxa included were evaluated for various reasons which are outlined in the introduction. The following taxa represent those trees categorised as E (Endangered) or V (Vulnerable) in the 1997 IUCN Red List of Threatened Plants, which are believed to be taxonomically valid but which have not been evaluated for the present publication.

Acanthaceae
Sanchezia klugii

Actinidiaceae
Saurauia chaparensis
Saurauia molinae
Saurauia oroquensis

Anacardiaceae
Astronium gracile var. acuminatum
Comocladia undulata
Mangifera lamhii
Poupartia castanea
Semecarpus supanduriformis

Annonaceae
Anaxagorea silvestica
Annona domingensis
Guatteria cargadero
Melodorum fuscum
Miliusa tectona
Orophea salicifolia
Orophea torulosa
Phoenicanthus coriacea
Phoenicanthus obliqua
Polyalthia angustifolia
Polyalthia moonii
Polyalthia persicaefolia
Popowia parvifolia
Sageraea listeri var. andamanica
Sageraea reticulata
Stelechocarpus langespis

Apocynaceae
Alstonia curtisii
Aspidosperma chodatii

Aquifoliaceae
Ilex cassine ssp. mexicana
Ilex micrantha
Ilex nannophylla
Ilex rarasanensis

Araliaceae
Cassonia kirkii var. bracteata
Cassonia kirkii var. quadrifolata
Dendropanax morifer
Didymopanax gleasonii
Meryta angustifolia
Meryta latifolia
Oreopanax dussii
Oreopanax nicaraguensis
Polycias rivalisi
Sinopanax formosana

Betulaceae
Betula apoiensis
Betula megalocarpa

Bignoniaceae
Amphitecna costata
Amphitecna macrophylla
Amphitecna megalophylla
Amphitecna silvicola
Amphitecna steyermarkii
Jasera crassifolia
Jasera deltoidea
Jasera equitata
Jasera grandis
Jasera linearis
Jasera tomentosa

Bombacaceae
Durio macrantha
Quararibea costaricensis
Spirotheca rhodostyla
Boraginaceae

Bourreria radula
Cordia acuana
Cordia corallocola
Cordia deccandra
Cordia iberica
Cordia intricata
Cordia lauta
Cordia skutchii
Cordia suffruticosa
Cordia van-hermannii

Brunellia

Brunellia boliviensis var. boliviensis
Brunellia brunei
Brunellia carpinifolia ssp. cundinamarcensis
Brunellia comocladifolia ssp. guadalupensis
Brunellia comocladifolia ssp. josephensis
Brunellia comocladifolia ssp. piariana
Brunellia coriacea
Brunellia cuatrecasana
Brunellia cuetensis
Brunellia cuscous
Brunellia dichopetaloides
Brunellia diversifolia
Brunellia dalcis
Brunellia espinali
Brunellia forerori
Brunellia genyri
Brunellia glabra
Brunellia hexasepala
Brunellia hystera
Brunellia hygrothermica
Brunellia integrifolia ssp. mollis
Brunellia latifolia
Brunellia littlei
Brunellia oliveri
Brunellia pallida
Brunellia pitayensis
Brunellia propinqua ssp. susaconensis
Brunellia putumayensis
Brunellia rhoides
Brunellia stuebelii
Brunellia triana
Brunellia velutina

Buddleja

Buddleja angulatum
Buddleja floribunda
Buddleja incana
Buddleja velutina

Burseraceae

Crepidospermum cuneifolium
Crepidospermum multijugum
Protium melinonis
Protium nitidifolium
Protium pilosum

Capparaceae

Capparis nitida
Forchhammeria polyandra

Caricaceae

Carica chilensis
Carica cinnamocolumna
Carica coriiceps

Caryocaraceae

Caryocar edule
Caryocar glutinum ssp. album

Cecropiaceae

Cecropia curvata
Cecropia decora
Cecropia dubia
Cecropia flexuosa
Cecropia geranioides
Cecropia guatemalensis
Cecropia laevigata
Cecropia lutea
Cecropia micropetala
Cecropia pendula
Cecropia tomentosa

Chloranthaceae

Hedyosmum buxifolium
Hedyosmum cognatum
Hedyosmum cordatum
Hedyosmum macrophyllum
Hedyosmum myrtifolium
Hedyosmum nitidum
Hedyosmum magnificum
Hedyosmum pachyphyllum
Hedyosmum persoonii
Hedyosmum piliferum
Hedyosmum pyriforme
Hedyosmum pumilum
Hedyosmum salicifolium
Hedyosmum squamatum
Hedyosmum tetrastichum
Hedyosmum thomsonii
Hedyosmum wrightii

Chrysobalanaceae

Couperia bondarensis
Couperia caracasae
Couperia caryophylloides ssp. glabra
Couperia coarctata
Couperia crenata var. major
Couperia crenata var. membranacea
Couperia exflexa
Couperia insignis
Couperia longipetiolata
Couperia maritima
Couperia mexicana
Couperia monteclarensis
Couperia parviflora
Couperia pinnatifida
Couperia pinnambucensis
Couperia platycladus
Couperia recurva
Couperia reflexa
Hirtella aramangensis
Hirtella barbeyi
Hirtella barrosii
Hirtella conduplicata
Hirtella floribunda
Hirtella glauca
Hirtella insignis
Hirtella jacqinii
Hirtella obtusifolia

Combretaceae

Terminalia bentoeae ssp. rodriguesensis
Terminalia luteola
Terminalia pinangensis
Terminalia simus
Terminalia viitensis

Compositae

Eupatorium alpinum
Eupatorium lasiophyllum

Connaraceae

Connaraceae

Corylaceae

Carpinus rankeanae var. rankeanae

Dichapetalaceae

Stephanopodium angulatum
Stephanopodium blanchetianum
Stephanopodium engleri
Stephanopodium estrellense
Tapura amazonica var. manausensis
Tapura bullata
Tapura colombiana
Tapura ferruginea
Tapura haitiensis
Tapura juliana
Tapura lanceolata
Tapura peruviana var. peruviana
Tapura tessmannii

List of Threatened Trees

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Appendix 3 Not Evaluated Globally Threatened Tree Species

Dracaenaceae
Beaucornea plialis

Ebenaceae
Diospyros bambuseti
Diospyros campechiana
Diospyros conzatti
Diospyros diversifolia
Diospyros engleri
Diospyros grecilis
Diospyros johnstoniana
Diospyros kerri
Diospyros koenii
Diospyros longepilosa
Diospyros oaxacana
Diospyros opaca
Diospyros rekoi
Diospyros saxosa
Diospyros thaitensis
Diospyros trianthas

Elaeagnaceae
Elaeagnus arakiana
Elaeagnus yakushimensis

Elaeocarpaceae
Elaeocarpus costatus

Ericaceae
Bejaria cubensis
Bejaria imthurnii
Bejaria ledifolia
Bejaria nana
Bejaria neblinensis
Bejaria steyermarkii
Bejaria subsessilis
Bejaria zamarae
Elliotia racemosa
Erica caterviflora

Erythroxylaceae
Erythroxylum affine
Erythroxylum andrei
Erythroxylum boracense
Erythroxylum bezerrae
Erythroxylum bicolor
Erythroxylum bradecanum
Erythroxylum buxus
Erythroxylum corthagenense
Erythroxylum clarense
Erythroxylum colombinum
Erythroxylum ellipticum
Erythroxylum foetidum
Erythroxylum glaziauti
Erythroxylum grandiflorum
Erythroxylum guanchezii
Erythroxylum hamigerum
Erythroxylum harried
Erythroxylum lancifolium
Erythroxylum leal-costa
Erythroxylum ligustrinum var. corajaseense
Erythroxylum loretense
Erythroxylum lygoide

Erythroxylum macrocalyx
Erythroxylum matts-silvae
Erythroxylum membranaceum
Erythroxylum mikanii
Erythroxylum nitidum
Erythroxylum occultum
Erythroxylum ovalifolium
Erythroxylum petrae-caball
Erythroxylum reticulatum
Erythroxylum rudy
Erythroxylum santosii
Erythroxylum splendidum
Erythroxylum steyermarkii
Erythroxylum stalagnum
Erythroxylum tuerutiense
Erythroxylum undulatum
Erythroxylum vasquezii
Erythroxylum virgulatum

Euphorbiaceae
Adelia vasyi
Aporusa incisa
Croton pilgerii
Croton pectinatus
Croton pyriticus
Drypetes dussii
Drypetes lanceolata
Drypetes leioarpa
Drypetes triplinervia
Euphorbia huberti
Euphorbia quadrilatata
Jatropha costaricensis
Monihai michaels
Margaretia holotana
Phyllanthus valerii
Sopium laurocerasus

Fagaceae
Lithocarpus crainianus
Lithocarpus echinops
Pasonia nantoensis
Pasonia shinsuensis
Quercus acuminata
Quercus hendai
Quercus ineretina
Quercus istoidees
Quercus siculo

Flacourtiaeae
Banara kuhlnanii
Banara laeensis
Banara portoricensis
Banara quinqueversis
Banara seleana
Banara splendens
Banara trinatiss
Banara wilsoni
Carpotroche froesiana
Carpotroche romusii
Casearia bahiensis
Casearia catharinensis
Casearia ilicifolia
Casearia lautelburghii
Casearia manausensis
Casearia milliodora
Casearia mestreensis

Casearia neblinae
Casearia nigricolor
Casearia paranensis
Casearia sessiliflora
Casearia zahlbruckneri
Doyvalis spinosissima
Euceraea leumeriana
Homalium glabifolium
Homalium peninsulare
Homalium schlichitii
Laetia avellfolia
Lunania dentata
Lunania tenuifolia
Mayna hystricina
Ryania dentata var. dentata
Ryania dentata var. toxica
Xylosma avilae
Xylosma boliviun
Xylosma glaucescens
Xylosma longipediolatum
Xylosma lucidum
Xylosma martincense
Xylosma raimondii
Xylosma raigiana
Xylosma santae-annae
Xylosma Schroederi
Xylosma terrea-regine

Guttiferae
Calophyllum amblyphyllum
Calophyllum calaba var. calaba
Calophyllum calaba var. worthingtonii
Calophyllum leucocarpum
Clusia plukenetii
Garainia adinantha
Garainia clarenis

Hamamelidaceae
Trichocladus dentatus

Hoplestigmaeae
Hoplestigma pierreanum

Icacinaceae
Citronella epogon
Citronella engleri
Citronella ilicifolia
Citronella megaphylla
Citronella milliodora
Discophora montana

Juglandaceae
Alforoa guanacastensis
Alforoa manningii
Alforoa williamsi ssp. tapanatensis
Alforoa williamsi ssp. williamsi
Juglan pyriformal
Oreomunnea mexicana ssp. costaricensis

Lacistemataceae
Lacistema macbridei
Lacistema serrulatum
Lauraceae

Aniba ramageana
Beilschmiedia berteroana
Beilschmiedia miersii
Caryodaphnos inaquailis
Cinnamomum ganduliferum
Cryptocarya gregsonii
Licaria sericea
Litsia myosrensis
Mezilaurus caatingae
Mezilaurus ducel
Mezilaurus mahuba
Mezilaurus microantho
Mezilaurus opaca
Mezilaurus polcauzensis
Mezilaurus pyriforma
Mezilaurus quadrilocellata
Mezilaurus thoroflora
Ocoteya caudato
Ocoteya laevigata
Ocoteya lancilimba
Ocoteya mascarena
Ocotaea moschata
Perssea meyeniana
Perssea nummularia
Perssea schoeri
Perssea urbariana
Pleurothryium grandiflorum
Pleurothryium westphalii

Lecythidaceae

Eschweilera cabrerana
Eschweilera calyculata
Eschweilera collinsi
Eschweilera hondurensis
Eschweilera klugi
Eschweilera paniculata
Eschweilera revoluta
Eschweilera rufifolia
Foetidia mauritiana
Foetidia rodriguesianus
Gustavia acuta
Gustavia flagellata var. costata
Gustavia flagellata var. flagellata
Gustavia gentryi
Gustavia inaksana
Gustavia parviflora
Gustavia tejerana
Gustavia terminaliflora

Leguminosae

Acacia mbulensis
Albizia aylmeri
Amherstia nobilis
Caesalpinia barahonensis
Caesalpinia buchii
Calliandra nervosa
Cassia bucherae
Cassia sclerocalyula
Centrosema sempervirens
Cojoba chazutense
Copapera cambar
Copapera chodatiana
Copapera langsdorffii var. glabra
Coursetia polyphylla var. acutifolia
Dalbergia decipularis
Dalbergia frutescens var. tomentosa

Dimorphandra cocinea
Dimorphandra dissimilis
Dimorphandra gigantea
Dimorphandra ignea
Dimorphandra jorgei
Dimorphandra loretensis
Dimorphandra mediaeotris
Dimorphandra williamii
Erythrina acuana
Erythrina dominguezii
Erythrina furcatolopia
Erythrina greenwayi
Hymenaea davisi
Loesenera walkeri
Lonchocarpus ferrugineus
Lonchocarpus manticola
Lonchocarpus morenoi
Lonchocarpus pilosus
Lonchocarpus velleugyna
Macrolobium costaricense
Mora abbottii
Neeschillerodendron stephanii
Parkia bahiae
Parkia truncata
Peltolophium berteroana
Piptadenia helleri
Piptadenia paraguayensis
Pithecellobium aboottii
Prosopis atacameva
Prosopis rojasiana
Prosopis rubriflora
Robinia viscosa var. hartwegii
Subinea carpinal
Sclerolobium costaricense
Setbania goetzei ssp. multiseta
Styphnodelon porcata
Swartzia gigantea var. leioyana
Swartzia acutifolia var. parviflora
Swartzia acutifolia var. submarginal
Swartzia acutifolia var. ynesiana
Swartzia amazonica var. amazonica
Swartzia amazonica var. cinerea
Swartzia ampliflora var. rigida
Swartzia amshoffiana
Swartzia angustifoliolata
Swartzia anomalos
Swartzia apetala var. blanchetii
Swartzia apiculata
Swartzia aperata
Swartzia benhamiana var. yacuensis
Swartzia brachyrachis var. colombiana
Swartzia brachyrachis var. peruviana
Swartzia buntingii
Swartzia cabrerana
Swartzia caribaena
Swartzia caudata
Swartzia costata
Swartzia cupavensis
Swartzia curranii
Swartzia davisi
Swartzia dolichopoda
Swartzia duckei
Swartzia fanshovei
Swartzia fimbrifera
Swartzia floribunda
Swartzia foliolosa
Swartzia fraterna
Swartzia froesi
Swartzia gigantea
Swartzia grazielana
Swartzia haughtii
Swartzia hostmannii
Swartzia inirdenis
Swartzia jenmanii
Swartzia katawa
Swartzia lapellata var. kaieteurenensis
Swartzia lapellata var. lapellata
Swartzia lasifolia var. lasifolia
Swartzia leblondii
Swartzia leioynea
Swartzia littlai
Swartzia longicarpa
Swartzia longipedicillata
Swartzia longisiptitata
Swartzia lucida
Swartzia macrostachya var. glabrovea
Swartzia macrostachya var. kuhlmannii
Swartzia macrostachya var. macrostachya
Swartzia macrostachya var. riedelii
Swartzia magdalenae
Swartzia maguirei
Swartzia mangabalenensis
Swartzia manchicana
Swartzia miconfera
Swartzia oblonga
Swartzia pachyphylla
Swartzia panacoco var. alsonii
Swartzia panacoco var. kamarangensis
Swartzia panacoco var. panacoco
Swartzia panacoco var. sagotti
Swartzia panacoco var. sandwiciana
Swartzia panacoco var. tepuisensis
Swartzia paxivolla
Swartzia permirida
Swartzia phaneropetra
Swartzia piarensis
Swartzia pickellii
Swartzia pitleri
Swartzia prolata
Swartzia racemosa var. klugi
Swartzia racemosa var. major
Swartzia riedelii
Swartzia roraimae
Swartzia schunkei
Swartzia sericea var. emarginata
Swartzia sprucei var. sprucei
Swartzia trinitensis
Swartzia ulii
Swartzia vaupesiana var. glauca
Swartzia vaupesiana var. vaupesiana
Swartzia velutina
Swartzia wurdackii
Swartzia xanthopetala
Tessmannia martinius var. pauloi

Lythraceae

Tetragastris saticifolia

Magnoliaceae

Magnolia paleascens
Magnolia poasana
Magnolia sororum ssp. lutea

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Appendix 3 Not Evaluated Globally Threatened Tree Species

Pachylamix pomocarpa

Malpighiaceae
Bunchosia acuminata
Bunchosia articulata
Bunchosia macilenta
Bunchosia paezilia
Bunchosia quassixtor
Bunchosia styxya

Malvaceae
Dendrosida batesii
Dendrosida breedlovei
Hibiscus boryanus
Hibiscus columnaris
Hibiscus fragilis
Hibiscus genevii
Hibiscus viliflorus
Robinsonella erasmi-sosae
Sida eggeri

Melastomataceae
Asinae sodiroi
Dissotis aprica
Dissotis arboreascens
Dissotis bussei
Dissotis glandulalcyx
Menecylon cordatum
Menecylon greenwayii
Menecylon myriiforme
Merania acostae
Merania alnedae
Merania angustifolia
Menoria amplexicaulis
Merania brevipedunculata
Merania kirkbriade
Merania loesend
Merania magarei
Merania parvifolia
Merania stellata
Miconia chiriquiensis
Miconia foveolata
Miconia fulvostellata
Miconia pyconemera
Mouriri ambiconvexa
Mouriri angustifolia
Mouriri arborea
Mouriri bahiensis
Mouriri cearensis ssp. carajasica
Mouriri doriana
Mouriri exadensia
Mouriri floribunda
Mouriri frisesii
Mouriri gaynusens
Mouriri goanensis
Mouriri goanensis var. goanensis
Mouriri goanensis var. hotensis
Mouriri lancifolia
Mouriri meganperma
Mouriri micradenia
Mouriri micranthera
Mouriri monopora
Mouriri mytilloides ssp. orinocensis
Mouriri obtusiloba
Mouriri pachyphyla
Mouriri teyermarkii
Mouriri tessmannii

Meliaceae
Cedrela weberbaueri
Pachyptilus patersonianum
Guarea costata
Trichilia pachypoda
Trichilia stipitata
Trichilia trifolia ssp. palmeri
Turraea decandra
Turraea laconiata
Turraea rida
Turraea trichopoda

Meliosmaceae
Meliosma abbreviata
Meliosma corymbosa
Meliosma hachijojensis
Meliosma nanarum
Meliosma peytonii
Meliosma solonanii
Meliosma vasquezii

Monimiaceae
Tambourissa cocothiend
Tambourissa pedicellata
Tambourissa quadrifida
Tambourissa sieberi
Tambourissa tetragona

Moraceae
Brosimum utile var. allinii
Dorstenia escentrica
Ficus pseudopalma
Naucleopsis chiquila
Naucleopsis jamariensis
Naucleopsis naga
Naucleopsis pseudo-naga
Naucleopsis riparia
Perebea guianensis ssp. hirsuta
Perebea guianensis ssp. pseudopeltata
Perebea longepedunculata
Trophis cuspida
Trophis involucrata

Myricaceae
Myrica californica
Myrica phanerodonata

Myristicaceae
Ottoba parvifolia
Staudia kamerunensis

Myrsinaceae
Ardisia magdalene
Badula bafouriand
Badula borbonica var. borbonica
Badula borbonica var. macrophylla
Badula decumbens

Myrtaceae
Amomityrus luna
Calyptranthes elegans
Calyptranthes krugii
Eugenia chrysobalanoides
Eugenia crassipephala
Eugenia gryposperma
Eugenia generiens
Eugenia octopleura
Eugenia Rodriguesensis
Eugenia stahlii
Eugenia stewardinii
Eugenia vaughanii
Montiniastra fasiculatum
Myrciaria acutiflora
Myrciaria schltzei
Myrric var. dominicana
Myrcianthes ferreyrae
Myricanthus fragrans var. simpsonii
Syzgium balfourii
Syzgium bijouxi
Syzgium cylindrical
Syzgium populinifolium
Syzgium vaughanii

Nyctaginaceae
Guapirea leonis
Guapirea suborinculata
Pisonia costata
Pisonia suborinculata

Olaraceae
Dulacia tepuensis
Heisteria asplundii
Heisteria maytenoides
Heisteria skutchii
Schoepfia tepuensis

Oleaceae
Chionanthus acutiae
Chionanthus ayrestii
Chionanthus boutonii
Chionanthus buromeana var. buromeana
Chionanthus moncadae
Fraxinus latifolia
Fraxinus papillosa
Fraxinus texensis
Osmanthus rigidus

Pandanaceae
Pandanus barklyi var. macrocarpus
Pandanus congromeratus
Pandanus dragaceus
Pandanus glaucosetalus
Pandanus iceryi
Pandanus incertus
Pandanus macrostigma
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Appendix 3 Not Evaluated Globally Threatened Tree Species

Salix paludicola
Salix planifolia ssp. tyrrellii
Salix sessilifolia
Salix silicicola
Sapindaceae

Hypelate trifoliata
Sapindus grandifolius

Sapotaceae

Bumelia acuana
Bumelia revoluta
Bumelia tenax
Bumelia thornei
Chrysophyllum eggersii
Diploknema siamensis
Ecclinusia dumetorum
Labourdonnaisia glauca
Labourdonnaisia revoluta
Lecomtedoxa heitzana
Madhuca kerrii
Madhuca punctata
Madhuca tokinisis
Mimusops andamanensis
Mimusops erythroxylon
Mimusops petiolaris
Mimusops zeylanica
Palaquium garrettii
Palaquium punctatum
Payena thorelii
Pouteria boninensis
Sarcosperma siamensis
Sideroxylon boutonianum
Sideroxylon eriocarpum
Sideroxylon galeatum
Sideroxylon grandiflorum
Sideroxylon majus
Sideroxylon sessiliflorum
Sideroxylon tenax
Sideroxylon thornei

Simaroubaceae

Picramnia dwyeri
Picrasma cubensis
Simaba praecox

Solanaceae

Brunchesia clarensis
Brunchesia dwyeri
Brunchesia laecea
Brunchesia linearis
Brunchesia picardae
Cestrum jimenesi
Cestrum moaense
Lycianthes beckneriana
Lycianthes howardiana

Sterculiaceae

Astoria rosea
Ayenia cajalbanensis
Bytneria scopiura
Cola crispiflora
Dombeya mauritiana
Dombeya populnea
Dombeya rodiguesiana
Harrania balanensis
Sterculia zeylanica
Theobroma cirmolinae
Trochetia triflora
Trochetia uniflora

Symplocaceae

Symplocos cipinimoides
Symplocos lanata
Symplocos moaensis

Theaceae

Eurya boninensis
Gordonia zeylanica
Ternstroemia elliptica
Ternstroemia heptasepala
Ternstroemia rostrata

Theophrastaceae

Clavija repanda

Thymelaeaceae

Daphnopsis grandis

Tiliaceae

Neosprucea sucumbiensis
Tilia chyogokuensis

Trigoniacae

Trigonia macrantha

Ulmaceae

Ampelocera glabra

Urticaceae

Obelia ficifolia
Rousselia erratica

Verbenaceae

Citharexylum sulcatum var. hirtellum

Violaceae

Gloeospernum sclerophyllum
Leonia occidentalis
Melicytus latifolius
Melicytus novae-zelandiae ssp. centurionis
Rinorea djalonensis

Vochysiaceae

Callisthene hassleri
Vochysia duquei
Vochysia oppugnata

Winteraceae

Tasmannia purpurascens

Zygophyllaceae

Portiera chilensis
APPENDIX 4

IUCN RED LIST CATEGORIES

Prepared by the IUCN Species Survival Commission

As approved by the 40th Meeting of the IUCN Council
Gland, Switzerland

30 November 1994
1 INTRODUCTION

The threatened species categories now used in Red Data Books and Red Lists have been in place, with some modification, for almost 30 years. Since their introduction these categories have become widely recognised internationally, and they are now used in a whole range of publications and listings, produced by IUCN as well as by numerous governmental and non-governmental organisations. The Red Data Book categories provide an easily and widely understood method for highlighting those species under higher extinction risk, so as to focus attention on conservation measures designed to protect them.

The need to revise the categories has been recognised for some time. In 1984, the SSC held a symposium, 'The Road to Extinction' (Fitter & Fitter 1987), which examined the issues in some detail, and at which a number of options were considered for the revised system. However, no single proposal resulted. The current phase of development began in 1989 with a request from the SSC Steering Committee to develop a new approach that would provide the conservation community with useful information for action planning.

In this document, proposals for new definitions for Red List categories are presented. The general aim of the new system is to provide an explicit, objective framework for the classification of species according to their extinction risk.

The revision has several specific aims:

- to provide a system that can be applied consistently by different people;
- to improve the objectivity by providing those using the criteria with clear guidance on how to evaluate different factors which affect risk of extinction;
- to provide a system which will facilitate comparisons across widely different taxa;
- to give people using threatened species lists a better understanding of how individual species were classified.

The proposals presented in this document result from a continuing process of drafting, consultation and validation. It was clear that the production of a large number of draft proposals led to some confusion, especially as each draft has been used for classifying some set of species for conservation purposes. To clarify matters, and to open the way for modifications as and when they became necessary, a system for version numbering was applied as follows:

Version 1.0: Mace & Lande (1991)
The first paper discussing a new basis for the categories, and presenting numerical criteria especially relevant for large vertebrates.

Version 2.0: Mace et al. (1992)
A major revision of Version 1.0, including numerical criteria appropriate to all organisms and introducing the non-threatened categories.

Following an extensive consultation process within SSC, a number of changes were made to the details of the criteria, and fuller explanation of basic principles was included. A more explicit structure clarified the significance of the non-threatened categories.
Version 2.2: Mace & Stuart (1994)
Following further comments received and additional validation exercises, some minor changes to the criteria were made. In addition, the Susceptible category present in Versions 2.0 and 2.1 was subsumed into the Vulnerable category. A precautionary application of the system was emphasised.

Final Version
This final document, which incorporates changes as a result of comments from IUCN members, was adopted by the IUCN Council in December 1994.

All future taxon lists including categorisations should be based on this version, and not the previous ones.

In the rest of this document the proposed system is outlined in several sections. The Preamble presents some basic information about the context and structure of the proposal, and the procedures that are to be followed in applying the definitions to species. This is followed by a section giving definitions of terms used. Finally the definitions are presented, followed by the quantitative criteria used for classification within the threatened categories. It is important for the effective functioning of the new system that all sections are read and understood, and the guidelines followed.

REFERENCES


2 PREAMBLE

The following points present important information on the use and interpretation of the categories (= Critically Endangered, Endangered, etc.), criteria (= A to E), and sub-criteria (= a,b etc., i,ii etc.):

Taxonomic level and scope of the categorisation process

The criteria can be applied to any taxonomic unit at or below the species level. The term 'taxon' in the following notes, definitions and criteria is used for convenience, and may represent species or lower taxonomic levels, including forms that are not yet formally described. There is a sufficient range among the different criteria to enable the appropriate listing of taxa from the complete taxonomic spectrum, with the exception of micro-organisms. The criteria may also be applied within any specified geographical or political area although in such cases special notice should be taken of point 11 below. In presenting the results of applying the criteria, the taxonomic unit and area under consideration should be made explicit. The categorisation process should only be applied to wild populations inside their natural range, and to populations resulting from benign introductions (defined in the draft IUCN Guidelines for Re-introductions as "...an attempt to
establish a species, for the purpose of conservation, outside its recorded distribution, but within an appropriate habitat and eco-geographical area").

Nature of the categories

All taxa listed as Critically Endangered qualify for Vulnerable and Endangered, and all listed as Endangered qualify for Vulnerable. Together these categories are described as 'threatened'. The threatened species categories form a part of the overall scheme. It will be possible to place all taxa into one of the categories (see Figure 1).

![Figure 1: Structure of the Categories](image)

Role of the different criteria

For listing as Critically Endangered, Endangered or Vulnerable there is a range of quantitative criteria; meeting any one of these criteria qualifies a taxon for listing at that level of threat. Each species should be evaluated against all the criteria. The different criteria (A-E) are derived from a wide review aimed at detecting risk factors across the broad range of organisms and the diverse life histories they exhibit. Even though some criteria will be inappropriate for certain taxa (some taxa will never qualify under these however close to extinction they come), there should be criteria appropriate for assessing threat levels for any taxon (other than micro-organisms). The relevant factor is whether any one criterion is met, not whether all are appropriate or all are met. Because it will never be clear which criteria are appropriate for a particular species in advance, each species should be evaluated against all the criteria, and any criterion met should be listed.
Derivation of quantitative criteria

The quantitative values presented in the various criteria associated with threatened categories were developed through wide consultation and they are set at what are generally judged to be appropriate levels, even if no formal justification for these values exists. The levels for different criteria within categories were set independently but against a common standard. Some broad consistency between them was sought. However, a given taxon should not be expected to meet all criteria (A-E) in a category; meeting any one criterion is sufficient for listing.

Implications of listing

Listing in the categories of Not Evaluated and Data Deficient indicates that no assessment of extinction risk has been made, though for different reasons. Until such time as an assessment is made, species listed in these categories should not be treated as if they were non-threatened, and it may be appropriate (especially for Data Deficient forms) to give them the same degree of protection as threatened taxa, at least until their status can be evaluated.

Extinction is assumed here to be a chance process. Thus, a listing in a higher extinction risk category implies a higher expectation of extinction, and over the time-frames specified more taxa listed in a higher category are expected to go extinct than in a lower one (without effective conservation action). However, the persistence of some taxa in high risk categories does not necessarily mean their initial assessment was inaccurate.

Data quality and the importance of inference and projection

The criteria are clearly quantitative in nature. However, the absence of high quality data should not deter attempts at applying the criteria, as methods involving estimation, inference and projection are emphasised to be acceptable throughout. Inference and projection may be based on extrapolation of current or potential threats into the future (including their rate of change), or of factors related to population abundance or distribution (including dependence on other taxa), so long as these can reasonably be supported. Suspected or inferred patterns in either the recent past, present or near future can be based on any of a series of related factors, and these factors should be specified.

Taxa at risk from threats posed by future events of low probability but with severe consequences (catastrophes) should be identified by the criteria (e.g. small distributions, few locations). Some threats need to be identified particularly early, and appropriate actions taken, because their effects are irreversible, or nearly so (pathogens, invasive organisms, hybridization).

Uncertainty

The criteria should be applied on the basis of the available evidence on taxon numbers, trend and distribution, making due allowance for statistical and other uncertainties. Given that data are rarely available for the whole range or population of a taxon, it may often be appropriate to use the information that is available to make intelligent inferences about the overall status of the taxon in question. In cases where a wide variation in estimates is found, it is legitimate to apply the precautionary principle and use the estimate (providing it is credible) that leads to listing in the category of highest risk.

Where data are insufficient to assign a category (including Lower Risk), the category of 'Data Deficient' may be assigned. However, it is important to recognise that this category indicates that data are inadequate to determine the degree of threat faced by a taxon, not necessarily that the taxon is poorly known. In cases where there are evident threats to a taxon through, for example, deterioration of its only known habitat, it is important to attempt threatened listing, even though
there may be little direct information on the biological status of the taxon itself. The category 'Data Deficient' is not a threatened category, although it indicates a need to obtain more information on a taxon to determine the appropriate listing.

**Conservation actions in the listing process**

The criteria for the threatened categories are to be applied to a taxon whatever the level of conservation action affecting it. In cases where it is only conservation action that prevents the taxon from meeting the threatened criteria, the designation of 'Conservation Dependent' is appropriate. It is important to emphasise here that a taxon require conservation action even if it is not listed as threatened.

**Documentation**

All taxon lists including categorisation resulting from these criteria should state the criteria and sub-criteria that were met. No listing can be accepted as valid unless at least one criterion is given. If more than one criterion or sub-criterion was met, then each should be listed. However, failure to mention a criterion should not necessarily imply that it was not met. Therefore, if a re-evaluation indicates that the documented criterion is no longer met, this should not result in automatic down-listing. Instead, the taxon should be re-evaluated with respect to all criteria to indicate its status. The factors responsible for triggering the criteria, especially where inference and projection are used, should at least be logged by the evaluator, even if they cannot be included in published lists.

**Threats and priorities**

The category of threat is not necessarily sufficient to determine priorities for conservation action. The category of threat simply provides an assessment of the likelihood of extinction under current circumstances, whereas a system for assessing priorities for action will include numerous other factors concerning conservation action such as costs, logistics, chances of success, and even perhaps the taxonomic distinctiveness of the subject.

**Use at regional level**

The criteria are most appropriately applied to whole taxa at a global scale, rather than to those units defined by regional or national boundaries. Regionally or nationally based threat categories, which are aimed at including taxa that are threatened at regional or national levels (but not necessarily throughout their global ranges), are best used with two key pieces of information: the global status category for the taxon, and the proportion of the global population or range that occurs within the region or nation. However, if applied at regional or national level it must be recognised that a global category of threat may not be the same as a regional or national category for a particular taxon. For example, taxa classified as Vulnerable on the basis of their global declines in numbers or range might be Lower Risk within a particular region where their populations are stable. Conversely, taxa classified as Lower Risk globally might be Critically Endangered within a particular region where numbers are very small or declining, perhaps only because they are at the margins of their global range. IUCN is still in the process of developing guidelines for the use of national red list categories.

**Re-evaluation**

Evaluation of taxa against the criteria should be carried out at appropriate intervals. This is especially important for taxa listed under Near Threatened, or Conservation Dependent, and for threatened species whose status is known or suspected to be deteriorating.
Transfer between categories

There are rules to govern the movement of taxa between categories. These are as follows: (A) A taxon may be moved from a category of higher threat to a category of lower threat if none of the criteria of the higher category has been met for 5 years or more. (B) If the original classification is found to have been erroneous, the taxon may be transferred to the appropriate category or removed from the threatened categories altogether, without delay. (C) Transfer from categories of lower to higher risk should be made without delay.

Problems of scale

Classification based on the sizes of geographic ranges or the patterns of habitat occupancy is complicated by problems of spatial scale. The finer the scale at which the distributions or habitats of taxa are mapped, the smaller will be the area that they are found to occupy. Mapping at finer scales reveals more areas in which the taxon is unrecorded. It is impossible to provide any strict but general rules for mapping taxa or habitats; the most appropriate scale will depend on the taxa in question, and the origin and comprehensiveness of the distributional data. However, the thresholds for some criteria (e.g. Critically Endangered) necessitate mapping at a fine scale.

3 DEFINITIONS

Population

Population is defined as the total number of individuals of the taxon. For functional reasons, primarily owing to differences between life-forms, population numbers are expressed as numbers of mature individuals only. In the case of taxa obligately dependent on other taxa for all or part of their life cycles, biologically appropriate values for the host taxon should be used.

Subpopulations

Subpopulations are defined as geographically or otherwise distinct groups in the population between which there is little exchange (typically one successful migrant individual or gamete per year or less).

Mature individuals

The number of mature individuals is defined as the number of individuals known, estimated or inferred to be capable of reproduction. When estimating this quantity the following points should be borne in mind:

Where the population is characterised by natural fluctuations the minimum number should be used.

This measure is intended to count individuals capable of reproduction and should therefore exclude individuals that are environmentally, behaviourally or otherwise reproductively suppressed in the wild.

In the case of populations with biased adult or breeding sex ratios it is appropriate to use lower estimates for the number of mature individuals which take this into account (e.g. the estimated effective population size).
Reproducing units within a clone should be counted as individuals, except where such units are unable to survive alone (e.g. corals).

In the case of taxa that naturally lose all or a subset of mature individuals at some point in their life cycle, the estimate should be made at the appropriate time, when mature individuals are available for breeding.

Generation

Generation may be measured as the average age of parents in the population. This is greater than the age at first breeding, except in taxa where individuals breed only once.

Continuing decline

A continuing decline is a recent, current or projected future decline whose causes are not known or not adequately controlled and so is liable to continue unless remedial measures are taken. Natural fluctuations will not normally count as a continuing decline, but an observed decline should not be considered to be part of a natural fluctuation unless there is evidence for this.

Reduction

A reduction (criterion A) is a decline in the number of mature individuals of at least the amount (%) stated over the time period (years) specified, although the decline need not still be continuing. A reduction should not be interpreted as part of a natural fluctuation unless there is good evidence for this. Downward trends that are part of natural fluctuations will not normally count as a reduction.

Extreme fluctuations

Extreme fluctuations occur in a number of taxa where population size or distribution area varies widely, rapidly and frequently, typically with a variation greater than one order of magnitude (i.e., a tenfold increase or decrease).

Severely fragmented

Severely fragmented is refers to the situation where increased extinction risks to the taxon result from the fact that most individuals within a taxon are found in small and relatively isolated subpopulations. These small subpopulations may go extinct, with a reduced probability of recolonisation.

Extent of occurrence

Extent of occurrence is defined as the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred or projected sites of present occurrence of a taxon, excluding cases of vagrancy. This measure may exclude discontinuities or disjunctions within the overall distributions of taxa (e.g., large areas of obviously unsuitable habitat) (but see 'area of occupancy'). Extent of occurrence can often be measured by a minimum convex polygon (the smallest polygon in which no internal angle exceeds 180 degrees and which contains all the sites of occurrence).
Area of occupancy

Area of occupancy is defined as the area within its 'extent of occurrence' (see definition) which is occupied by a taxon, excluding cases of vagrancy. The measure reflects the fact that a taxon will not usually occur throughout the area of its extent of occurrence, which may, for example, contain unsuitable habitats. The area of occupancy is the smallest area essential at any stage to the survival of existing populations of a taxon (e.g. colonial nesting sites, feeding sites for migratory taxa). The size of the area of occupancy will be a function of the scale at which it is measured, and should be at a scale appropriate to relevant biological aspects of the taxon. The criteria include values in km², and thus to avoid errors in classification, the area of occupancy should be measured on grid squares (or equivalents) which are sufficiently small (see Figure 2).

Location

Location defines a geographically or ecologically distinct area in which a single event (e.g. pollution) will soon affect all individuals of the taxon present. A location usually, but not always, contains all or part of a subpopulation of the taxon, and is typically a small proportion of the taxon's total distribution.

Quantitative analysis

A quantitative analysis is defined here as the technique of population viability analysis (PVA), or any other quantitative form of analysis, which estimates the extinction probability of a taxon or population based on the known life history and specified management or non-management options. In presenting the results of quantitative analyses the structural equations and the data should be explicit.
The World List of Threatened Trees

Figure 2:

Two examples of the distinction between extent of occurrence and area of occupancy. (a) is the spatial distribution of known, inferred or projected sites of occurrence. (b) shows one possible boundary to the extent of occurrence, which is the measured area within this boundary. (c) shows one measure of area of occupancy which can be measured by the sum of the occupied grid squares.
4 THE CATEGORIES ¹

EXTINCT (EX)

A taxon is Extinct when there is no reasonable doubt that the last individual has died.

EXTINCT IN THE WILD (EW)

A taxon is Extinct in the wild when it is known only to survive in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

CRITICALLY ENDANGERED (CR)

A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria (A to E).

ENDANGERED (EN)

A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined by any of the criteria (A to E).

VULNERABLE (VU)

A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future, as defined by any of the criteria (A to D).

LOWER RISK (LR)

A taxon is Lower Risk when it has been evaluated, does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable. Taxa included in the Lower Risk category can be separated into three subcategories:

1. Conservation Dependent (cd). Taxa which are the focus of a continuing taxon-specific or habitat-specific conservation programme targeted towards the taxon in question, the cessation of which would result in the taxon qualifying for one of the threatened categories above within a period of five years.

2. Near Threatened (nt). Taxa which do not qualify for Conservation Dependent, but which are close to qualifying for Vulnerable.

3. Least Concern (lc). Taxa which do not qualify for Conservation Dependent or Near Threatened.

¹ Note: As in previous IUCN categories, the abbreviation of each category (in parenthesis) follows the English denominations when translated into other languages.
DATA DEFICIENT (DD)

A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution is lacking. Data Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and threatened status. If the range of a taxon is suspected to be relatively circumscribed, if a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.

NOT EVALUATED (NE)

A taxon is Not Evaluated when it is has not yet been assessed against the criteria.

5  THE CRITERIA FOR CRITICALLY ENDANGERED, ENDANGERED AND VULNERABLE

CRITICALLY ENDANGERED (CR)

A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the following criteria (A to E):

A)  Population reduction in the form of either of the following:

1)  An observed, estimated, inferred or suspected reduction of at least 80% over the last 10 years or three generations, whichever is the longer, based on (and specifying) any of the following:

   a)  direct observation
   b)  an index of abundance appropriate for the taxon
   c)  a decline in area of occupancy, extent of occurrence and/or quality of habitat
   d)  actual or potential levels of exploitation
   e)  the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites.

2)  A reduction of at least 80%, projected or suspected to be met within the next ten years or three generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.

B)  Extent of occurrence estimated to be less than 100 km² or area of occupancy estimated to be less than 10 km², and estimates indicating any two of the following:

1)  Severely fragmented or known to exist at only a single location.

2)  Continuing decline, observed, inferred or projected, in any of the following:

   a)  extent of occurrence
   b)  area of occupancy
   c)  area, extent and/or quality of habitat
   d)  number of locations or subpopulations
e) number of mature individuals.

3) Extreme fluctuations in any of the following:
   a) extent of occurrence
   b) area of occupancy
   c) number of locations or subpopulations
   d) number of mature individuals.

C) Population estimated to number less than 250 mature individuals and either:

1) An estimated continuing decline of at least 25% within 3 years or one generation, whichever is longer or

2) A continuing decline, observed, projected, or inferred, in numbers of mature individuals and population structure in the form of either:
   a) severely fragmented (i.e. no subpopulation estimated to contain more than 50 mature individuals)
   b) all individuals are in a single subpopulation.

D) Population estimated to number less than 50 mature individuals.

E) Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or 3 generations, whichever is the longer.

ENDANGERED (EN)

A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined by any of the following criteria (A to E):

A) Population reduction in the form of either of the following:

1) An observed, estimated, inferred or suspected reduction of at least 50% over the last 10 years or three generations, whichever is the longer, based on (and specifying) any of the following:
   a) direct observation
   b) an index of abundance appropriate for the taxon
   c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
   d) actual or potential levels of exploitation
   e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites.

2) A reduction of at least 50%, projected or suspected to be met within the next ten years or three generations, whichever is the longer, based on (and specifying) any of (b), (c), (d), or (e) above.

B) Extent of occurrence estimated to be less than 5000 km² or area of occupancy estimated to be less than 500 km², and estimates indicating any two of the following:
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1) Severely fragmented or known to exist at no more than five locations.

2) Continuing decline, inferred, observed or projected, in any of the following:
   a) extent of occurrence
   b) area of occupancy
   c) area, extent and/or quality of habitat
   d) number of locations or subpopulations
   e) number of mature individuals.

3) Extreme fluctuations in any of the following:
   a) extent of occurrence
   b) area of occupancy
   c) number of locations or subpopulations
   d) number of mature individuals.

C) Population estimated to number less than 2500 mature individuals and either:
   1) An estimated continuing decline of at least 20% within 5 years or 2 generations, whichever is longer, or
   2) A continuing decline, observed, projected, or inferred, in numbers of mature individuals and population structure in the form of either:
      a) severely fragmented (i.e. no subpopulation estimated to contain more than 250 mature individuals)
      b) all individuals are in a single subpopulation.

D) Population estimated to number less than 250 mature individuals.

E) Quantitative analysis showing the probability of extinction in the wild is at least 20% within 20 years or 5 generations, whichever is the longer.

VULNERABLE (VU)

A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future, as defined by any of the following criteria (A to E):

A) Population reduction in the form of either of the following:
   1) An observed, estimated, inferred or suspected reduction of at least 20% over the last 10 years or three generations, whichever is the longer, based on (and specifying) any of the following:
      a) direct observation
      b) an index of abundance appropriate for the taxon
      c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
      d) actual or potential levels of exploitation
      e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites.
Appendix 4 IUCN Red List Categories

2) A reduction of at least 20%, projected or suspected to be met within the next ten years or three generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.

B) Extent of occurrence estimated to be less than 20,000 km² or area of occupancy estimated to be less than 2000 km², and estimates indicating any two of the following:

1) Severely fragmented or known to exist at no more than ten locations.

2) Continuing decline, inferred, observed or projected, in any of the following:
   a) extent of occurrence
   b) area of occupancy
   c) area, extent and/or quality of habitat
   d) number of locations or subpopulations
   e) number of mature individuals.

3) Extreme fluctuations in any of the following:
   a) extent of occurrence
   b) area of occupancy
   c) number of locations or subpopulations
   d) number of mature individuals.

C) Population estimated to number less than 10,000 mature individuals and either:

1) An estimated continuing decline of at least 10% within 10 years or 3 generations, whichever is longer, or

2) A continuing decline, observed, projected, or inferred, in numbers of mature individuals and population structure in the form of either:
   a) severely fragmented (i.e. no subpopulation estimated to contain more than 1000 mature individuals)
   b) all individuals are in a single subpopulation.

D) Population very small or restricted in the form of either of the following:

1) Population estimated to number less than 1000 mature individuals.

2) Population is characterised by an acute restriction in its area of occupancy (typically less than 100 km²) or in the number of locations (typically less than 5). Such a taxon would thus be prone to the effects of human activities (or stochastic events whose impact is increased by human activities) within a very short period of time in an unforeseeable future, and is thus capable of becoming Critically Endangered or even Extinct in a very short period.

E) Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.
APPENDIX 5

STANDARD DATA COLLECTION FORM

The data collection form was designed specifically to provide a framework for experts to review existing data as well as provide new data on threatened tree species. Several thousand forms have been completed by over 300 experts and their contents entered directly into the Tree Conservation Database.

Section 1 of the form was pre-filled with information from the Threatened Plants Database on taxonomy, distribution and conservation status together with common names and uses where known. Experts were asked to verify information in this section. Section 2 of the form was designed to record the 1994 IUCN category and criteria and to record summary notes on the conservation status of the species. Section 3 allows for the provision of supplementary information on uses, ecology and bibliographic references.
## Section 1 - Nomenclature and Occurrence

<table>
<thead>
<tr>
<th>Scientific name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other scientific name(s) in current use</td>
<td></td>
</tr>
<tr>
<td><strong>Family</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Common names</strong></td>
<td></td>
</tr>
<tr>
<td>Distribution at BRU* level (*Basic Recording Unit)</td>
<td></td>
</tr>
<tr>
<td>Old Global IUCN threat category</td>
<td></td>
</tr>
<tr>
<td><strong>Uses</strong></td>
<td></td>
</tr>
<tr>
<td>Is the taxonomy above correct?</td>
<td></td>
</tr>
<tr>
<td>Is the distribution complete? If not, in which additional countries or states can the species be found?</td>
<td></td>
</tr>
<tr>
<td>If the species distribution is confined to a particular area? (e.g. a mountain range) Please give the details</td>
<td></td>
</tr>
</tbody>
</table>

## Section 2 - Conservation Status

| Is this species of conservation concern in any part of its range? Please specify where | ☐ Yes | ☐ No |
| Revised global IUCN threat category (1994) | ☐ EX | ☐ EW | ☐ CR | ☐ EN | ☐ VU | ☐ LRred | ☐ LRnt | ☐ LRlc | ☐ DD | ☐ NE |
| **Criteria (e.g. A.1.(d) etc.)** |  |
| **Comment** | Please use this space to sum up the status of the species. Please include any information about the population size or decline, restricted range, ecological or taxonomic uniqueness, characteristics of regeneration or reproductive strategy, and any indications of the fragility of the state of the species, especially where data are insufficient to assign a threat category |
| **Threats** If multiple threats please indicate order of concern - use 1 for the most serious threat(s) | ☐ Felling | ☐ Grazing | ☐ Exploitation of plant parts |
| ☐ Fire | ☐ Natural Disaster | ☐ Pollution |
| ☐ Pests & Diseases | ☐ Invasive species | ☐ Lack of dispersal/pollination agents |
| ☐ Seed Predation | ☐ | ☐ Poor regeneration for unknown reasons |
| ☐ Mining | ☐ Tourism | ☐ Industrial development |
| ☐ Agriculture | ☐ | ☐ Forestry |
| ☐ Expansion of human habitation | ☐ | ☐ Decline in soil water content |
| ☐ Other major threat: |  |  |

Conservation measures

Please give the details of any on-going conservation activities, including legal measures, presence in protected areas, management practices and *ex situ* conservation, especially where the species is categorised as LRred
## Section 3 - Uses and Ecology

### Brief species description

<table>
<thead>
<tr>
<th><strong>Uses</strong></th>
<th>Use</th>
<th>Part</th>
<th>Level</th>
<th>Use</th>
<th>Part</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please enter in the columns provided the appropriate letter and number corresponding to the part used and the level exploitation respectively</td>
<td>EXAMPLE</td>
<td>T,B</td>
<td>2,2</td>
<td>Non-vertebrate poison</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medicine</td>
<td></td>
<td></td>
<td>Gum, resin, oil etc</td>
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<tr>
<td></td>
<td>Timber</td>
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<td>Fibre</td>
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<td></td>
<td>Fuel</td>
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<td></td>
<td>Gene source</td>
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<tr>
<td></td>
<td>Food</td>
<td></td>
<td></td>
<td>Social use</td>
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<td></td>
<td>Food additive</td>
<td></td>
<td></td>
<td>Environmental use</td>
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<tr>
<td></td>
<td>Animal food</td>
<td></td>
<td></td>
<td>Ornamental</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Invertebrate food</td>
<td></td>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bee plant</td>
<td></td>
<td></td>
<td>(please specify)</td>
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</tr>
<tr>
<td></td>
<td>Vertebrate poison</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### **Habitat Type**

Please tick whichever boxes describe the species natural habitat most appropriately.

|  | Closed forest | Open forest | Scrub | Herbaceous vegetation | Sparsely vegetated | Lowland | Submontane | Montane | Alpine | Broadleaved | Coniferous | Mixed | Cloud forest | Mangrove | Swamp forest | Wetland | Sclerophyllous | Anthropic landscape |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Seasonal | Non-seasonal | Moist | Dry |  | | | | | | | | | | | | | | |

Please define habitat type further if necessary.

### Species associations

- Regeneration guild
  - Early pioneer
  - Late secondary
  - Primary

- Spatial distribution
  - Abundant
  - Scattered
  - Clumped

### Obligative species dependencies

### Dispersal/pollination agents

### Altitudinal range in metres

<table>
<thead>
<tr>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
</table>

### Status of the species in cultivation

- Plantation grown
- Widely cultivated
- Small scale
- None

### Relevant references

Please cite any references used to complete this form.

---

**Please indicate the uses of species only when relevant to human use e.g. only those plants eaten by invertebrates such as silkworms, lac insects etc. should be indicated as invertebrate food. Bee plants are those which are used for honey production. Animal food refers to those plants eaten by domesticated animals. Environmental use refers to shade trees, windbreaks and trees used in erosion control etc. Examples of plants of social use are narcotics, contraceptives, plants of ritual significance etc.**

**Closed forest** consists of trees with interlocking crowns. **Open forest** (woodland) contains trees with crowns not interlocking. **Herbaceous vegetation** is dominated by non-woody plants with scattered trees.

---

**Your name**

**Date**
GLOSSARY AND ABBREVIATIONS

AETFAT  Association for the Taxonomic Study of the Flora of Tropical Africa.
AOO  Area of Occupancy, a term which is used in the application of the IUCN Red List Categories. It is defined in Appendix 4.
Caatinga  Xerophytic scrubland in areas of alternating flood and drought, found in South America.
Campo  An open formation, largely composed of shrubs and grasses, found in South America.
Campo cerrado  Savanna with trees, found in South America.
Campo rupestre  An open formation on rocky soil in South America.
CBD  Convention on Biological Diversity
Cerrado  A shrubby savanna-like vegetation, found in South America.
CIFOR.  Center for International Forestry Research
CNPS  California Native Plant Society.
CONABIO  Mexican Commission on Conservation and Use of Biodiversity (Mexico).
CONAF  Corporación Nacional Forestal (Chile)
CSIRO  Commonwealth Scientific Industrial Research Organisation (Australia).
ECOSUR  Colegio de la Frontera Sur (Mexico).
EOO  Extent of Occurrence, a term which is used in the application of the IUCN Red List Categories. It is defined in Appendix 4.
Elfin forest  Forest with a canopy about 5m high, gnarled growth; the highest of the montane vegetation formations.
FAO  Food and Agriculture Organisation of the United Nations.
FCAP  Faculdade de Ciências Agrárias do Pará (Brazil).
FTEA  Flora of Tropical East Africa.
Fynbos  A term which refers to a flora and vegetation type unique to the South African Cape; evergreen sclerophyllous shrubland.
GIS  Geographic Information System.
Granodiorite  Coarsely crystalline acid igneous rock.
Hakeas  Members of the Proteaceae family.
Hala forest  Coastal forest dominated by Pandanus tectorius, found in Hawaii.
Igapó  An Amazonian forest or woodland type flooded by black waters.
IBAMA  Instituto Brasileiro de Meio Ambiente e dos Recursos Naturais Renováveis (Brazil).
IDS  International Dendrological Society.
INEFAN  Institute Ecuatoriano Forestal y de Areas Naturales y Vilda Silvestre (Ecuador).
ICRAF  International Centre for Research in Agriculture
IPGRI  International Plant Genetic Resources Institute.
ITTA  International Tropical Timber Agreement
ITTC  International Tropical Timber Council.
ITTO  International Tropical Timber Organisation
IUCN  The World Conservation Union.
Kahikatea/matai forest  A New Zealand forest type, consisting of Dacrycarpus dacrydioides and Prumnopitys taxifolia.
Arid shrubland, dominated by succulent species, found in the Karoo, a vast arid plain in the South African Cape.

A forest type dominated by Agathis in South-East Asia and the Pacific.

Heath forest of invariably low stature, lacking emergents and confined to organic white sand and podsol soils. It occurs mainly on raised beach terraces or on sandstone ridges and plateaux in South-East Asia.

An Afrikaans word for a gully, ravine or valley, usually with steeply inclined or rocky sides.

Evergreen laurel forest, e.g. in the Canary Islands.

A specific altitudinal zone in Cuba between 300 and 900m.

Vine forest, largely confined to the Amazon.

A general term used in South America to described scrub or shrubland.

Makere University Institute of Environment and Natural Resources (Uganda).

National Botanical Institute (South Africa).

New York Botanical Garden.

Plant Resources of South-East Asia.

High Andean grasslands.

Coastal dune woodland or scrub in areas of northern and eastern South America and Mexico.

Rare or Threatened Australian Plants (Australia).

Southern African Threatened Plants Database (South Africa).

IUCN Species Survival Commission.

Patches of stunted evergreen hill forest with temperate and tropical components, occurring in Peninsular India and Sri Lanka, usually restricted to hill folds and surrounded by extensive grassy downs.

Tabletop mountains found in the Guyana Shield in northern South America.

Upland, unflooded forest in South America.

The Nature Conservancy (USA).

A nomenclatural database held at Missouri Botanical Garden.

Pertaining to marked periodic fluctuations of light, temperature and moisture.

CITES Timber Working Group.

An Amazonian forest type on sedimentary soil; subject to annual flooding by white water.

A forest type dominated by Eperua spp.

Acacia species.

World Conservation Monitoring Centre.

The Species Survival Commission (SSC) is one of six volunteer commissions of IUCN – The World Conservation Union, a union of sovereign states, government agencies and non-governmental organizations. The SSC’s mission is to conserve biological diversity by developing and executing programmes to save, restore and wisely manage species and their habitats. A volunteer network comprised of nearly 7,000 scientists, field researchers, government officials and conservation leaders from nearly every country of the world, the SSC membership is an unmatched source of information about biological diversity and its conservation. As such, SSC members provide technical and scientific counsel for conservation projects throughout the world and serve as resources to governments, international conventions and conservation organizations.