The Red List of Mexican Cloud Forest Trees

Editors: Mario González-Espinosa, Jorge A. Meave, Francisco G. Lorea-Hernández, Guillermo Ibarra-Manríquez and Adrian C. Newton

FAUNA & FLORA INTERNATIONAL

BGCI Plants for the Planet

Global Trees Campaign

IUCN SSC Species Survival Commission

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COVER PHOTOS

Front cover: *Ulmus mexicana* tree with recently flushed foliage and flowers, near Santa Cruz Tepetotutla (Oaxaca). The habitat of this scarce cloud forest tree has been largely cleared to give way to maize fields and coffee plantations. The pictured tree is 60 m but one individual in Chiapas in the 1950s was recorded at 87 m, making the species the tallest in Mexico. Photo by J. A. Meave.

Back cover: Interior view of an *Oreomunnea mexicana* cloud forest stand in central Veracruz. Photo by C. Gallardo.

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Contents

We dedicate this work to the insightful and treasured teachings of Dr Faustino Miranda and Dr Jerzy Rzedowski, whose seminal research has inspired and guided our interest in the beautiful cloud forests of Mexico. It is also dedicated to the memory of Dr Laura Arriaga, an indefatigable worker on the ecology of cloud forests and early participant in the production of this report.

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The initial May 2007 workshop was convened by the IUCN/SSC Global Tree Specialist Group, represented by Adrian Newton, and supported financially by Fauna & Flora International (FFI). The workshop was organised by Adrian Newton of Bournemouth University and Mario González-Espinosa of ECOSUR, with advice from the Chair of the IUCN/SSC Global Tree Specialist Group. Workshop participants (who are referred to in the List as Expert Group May 2007) included Antony Challenger, Rafael F. del Castillo, Duncan J. Golicher, Mario González-Espinosa, Mario Ishiki, José Luis León de la Luz, Francisco G. Lorea-Hernández, Jorge A. Meave, Adrian C. Newton, and Neptalí Ramírez-Marcial.

We are grateful to the many members of the botanical community in Mexico who contributed to this report serving as assessors of plant groups in which they have taxonomical expertise or ecological familiarity (please see list below). In addition, other colleagues offered comments that helped define which species and information should be included or deleted from the list: Laura Arriaga (deceased), Antony Challenger, Rafael Fernández-Nava, Duncan J. Golicher, Martha Gual Díaz, Jaime Jiménez-Ramírez, José Luis León de la Luz, Miguel Martínez-Icó, Daniel Tejero-Díez, Teresa Terrazas-Salgado, and José Luis Villaseñor. Guadalupe Williams-Linera and Jorge A. Meave kindly hosted several working sessions at their homes in Xalapa and Mexico City, respectively. Angélica V. Pulido-Esparza provided logistic support for the meetings held during 2007 in San Cristóbal de Las Casas and Zacatecas. Marco Antonio Romero-Romero and Alberto Gallardo-Cruz provided most helpful technical assistance with the organization of the information in databases. We are grateful for an invitation from Isolda Luna-Vega and Martha Gual Díaz to present an earlier version of this report before the Mexican botanical community in a symposium on Mexican Cloud Forest at the XVIII Mexican Botanical Congress held in Guadalajara in November 2010. This was a prime opportunity to expose the scope and contents of the report, allowing us to receive valuable comments that have helped improve its content. Financial support was initially provided by Fauna & Flora International (FFI, UK) during 2007 and 2008. Thereafter, our home institutions and other sources kindly provided time and resources to complete this report as a side project. Finally, we are thankful for the patience of Amy Hinsley at FFI who heard from us on several occasions that the final version was imminent, and whose comments on the text greatly improved the presentation of this report.

List of acronyms

Three-letter acronyms of the Mexican federal states

Please note that México refers to the Federal State sometimes also identified as the State of Mexico (Estado de México), a territory surrounding nearly completely the Federal District (Distrito Federal, where Mexico City is located)

AGS	Aguascalientes
BC	Baja California
BCS	Baja California Sur
CAM	Campeche
CHS	Chiapas
CHI	Chihuahua
COA	Coahuila
COL	Colima
DF	Distrito Federal
DGO	Durango
GTO	Guanajuato
GRO	Guerrero
HGO	Hidalgo
JAL	Jalisco
MEX	México
MIC	Michoacán
MOR	Morelos
NAY	Nayarit
NL	Nuevo León
OAX	Oaxaca
PUE	Puebla
QRO	Querétaro
QTR	Quintana Roo
SLP	San Luis Potosí
SIN	Sinaloa
SON	Sonora
TAB	Tabasco
TAM	Tamaulipas
TLA	Tlaxcala
VER	Veracruz
YUC	Yucatán
ZAC	Zacatecas

Foreword

Upwards view of the trunk of an Oreomunnea mexicana *tree with epiphytes, mosses and lichens in a cloud forest stand in central Veracruz. Photo by C. Gallardo.*

The cloud forests of Mexico are immensely valuable for the ecosystem goods and services that they provide. The forests are exceptionally rich in botanical diversity with over 2,800 plant species recorded within them. The diversity of tree species, approximately 25% of the total botanical diversity, defines the forest structure and contributes to the ecological function and resilience of the forests. The trees also provide a wide range of products valued by local people. Unfortunately the cloud forests of Mexico, as elsewhere in the world, are under severe threat. The component trees are also threatened with extinction to a varying degree. This report presents a review of the conservation status of the Mexican cloud forest trees, undertaken by Mexican experts in partnership with FFI and the IUCN/SSC Global Tree Specialist Group. It is the result of a remarkable collaborative process over four years bringing together botanists and ecologists who care about the future of the forests and trees of Mexico.

Since its establishment in 2003 the primary role of the IUCN/SSC Global Tree Specialist Group has been to assess the global conservation status of tree species in selected geographical areas and taxonomic groups. *The Red List of Mexican Cloud Forest Trees* is the seventh publication in the series. It is the ultimate aim of the Group to carry out a full assessment of the status of the world's trees. As a step towards this goal, the Group is currently concentrating on "Trees at the top of the World" – high altitude trees that are likely to be particularly impacted by the effects of climate change.

The collection of information on tree species of conservation concern is vital for planning conservation action and the restoration of forest ecosystems. The secondary role of the IUCN/SSC Global Tree Specialist Group is to act as an advisory body for the Global Trees Campaign, which aims to save the world's most threatened tree species and the habitats where they grow. The Global Trees Campaign provides an important practical mechanism for implementation of the Global Plant Conservation Strategy of the Convention on Biological Diversity. Global tree red listing contributes directly to Target 2 of the Strategy, which calls for an assessment of the conservation status of all known plant species, as far as possible, to guide conservation action by 2020.

Target 2 underpins the other ambitious targets which relate to *in situ* and *ex situ* conservation, ecological restoration, sustainable use and trade in plants. Projects of the Global Trees Campaign carried out in partnership with organizations and individuals around the world help to deliver these various targets. The projects contribute to halting the loss of forest biodiversity and the provision of support to rural livelihoods.

The results of this assessment indicate that over 60% of the trees of Mexican cloud forests are threatened with extinction. Clearly action must be taken to conserve and restore the forests as a matter of urgency.

Sara Oldfield
Chair of the IUCN/SSC Global Tree Specialist Group

Introduction

Cloud forests in Mexico

The term cloud forest is used to refer to transitional forest communities occurring in Mexico in tropical and subtropical humid mountains located south of the 25° N parallel, at elevations mostly between 1,500 and 2,500 m (1, 8, 30, 31). However, Luna *et al*. (16) claim that topography and the amount of humidity may account for the presence of cloud forests across a much broader elevational belt ranging between 600 and 3,200 m. Cloud forests in Mexico are mostly found on steep slopes and protected ravines. These areas are more humid than pine, pine-oak and oak forests, warmer than high elevation conifer forests, and cooler than those that support the development of tropical plant formations.

Cloud forests in Mexico have an archipelago-like distribution and are floristically very rich, owing to the enormous variety of habitats and the wide contact between Holarctic and Neotropical floras in the country (18, 24, 25, 26). It has been estimated that cloud forests in Mexico occupy 10,000–20,000 km^2, which is 0.5–1.0% of the national territory (8, 10, 15, 20, 24, 25). As in other regions of the world where these forests occur, their habitat is considered unique among terrestrial ecosystems: it is strongly linked to processes of cloud formation and a resulting near constant atmospheric saturation. This provides the forests with their characteristic high relative humidity in the form of clouds and mist (13, 28).

Mexican cloud forests, together with other similar forests in the world, are recognized as one of the most globally threatened plant formations because of their naturally scattered distribution along a narrow elevational belt in which intense land-use change continues to take place (1, 3, 6, 7, 8, 13, 30, 32). In addition to forest fragmentation owing to deforestation, cloud forests are expected to be among the ecosystems most affected by global climatic change (11, 14, 21, 22, 29, 32). Consequently, not only is the biodiversity of cloud forests in peril, but also the environmental services that they provide to society at large: climate regulation, soil nutrient cycles, natural products, scenic beauty, and most importantly, water supply. Furthermore, even if global warming were not a major driver of species extinctions in cloud forests, the biota of these ecosystems remains highly vulnerable to exceptionally dry meteorological events (2).

The remarkable floristic richness of Mexican cloud forests has been widely recognized but there have been few systematic attempts at compiling an inventory (e.g. 26, 31). Rzedowski (26) lists c. 2,500 vascular plant species restricted to cloud forests, belonging to 650 genera within 144 botanical families. In a more recent attempt to estimate their floristic richness, Villaseñor (31) applied digital filters and geographic information systems to an exhaustive dataset derived from the existing cloud forest literature. Using a broader definition of cloud forest than that adopted in this report, he reports somewhat larger numbers: 2,822 vascular plant species, 815 genera and 176 botanical families. Broadly speaking, around 10% of the species, 52% of the genera, and 82% of the plant families recorded from Mexico are found in the country's cloud forests (31). The causes of the outstanding species diversity in Mexican cloud forests is yet to be fully explained but factors proposed include their biogeographical history, fragmented distribution, intimate contact with many other vegetation types and patterns of human disturbance (8, 16, 23, 24, 31).

The contribution of cloud forests to Mexico's endemic plant species is also high: an estimated 30–35% of the country's endemic plants are from cloud forest (25, 31). Rzedowski (26) identified nine botanical families that are virtually restricted to cloud forest in Mexico (Brunelliaceae, Chloranthaceae, Cunoniaceae, Hamamelidaceae, Illiciaceae, Podocarpaceae, Proteaceae, Sabiaceae and Winteraceae), and quotes the following genera as distinctive of this forest type: *Alfaroa* (Juglandaceae), *Carpinus* (Betulaceae), *Cornus* (Cornaceae), *Meliosma* (Sabiaceae), *Liquidambar* (Altingiaceae), *Oreomunnea* (Juglandaceae), *Oreopanax* (Araliaceae), *Cinnamomum* (Lauraceae), *Quercus* (Fagaceae), *Styrax* (Styracaceae), *Symplocos* (Symplocaceae) and *Zinowiewia* (Celastraceae).

While it is difficult to pinpoint flagship species for the habitat, potential candidates are *Carpinus caroliniana* (Betulaceae), *Chiranthodendron pentadactylon* (Malvaceae), *Liquidambar styraciflua* (Altingiaceae), *Oreomunnea mexicana* (Juglandaceae), *Oreopanax echinops* (Araliaceae), and *Podocarpus matudae* (Podocarpaceae), although none of these species occurs throughout this forest type in Mexico.

The largest cloud forest tracts in Mexico are located in the Sierra Madre Oriental, the Sierra Norte de Oaxaca (Northern Oaxaca Range), the Sierra Madre del Sur, the Northern Mountains of Chiapas and the Sierra Madre de Chiapas. Perhaps the most remarkable cloud forest region in Mexico is found in the very humid mountains of northern Oaxaca, where the average total annual precipitation generally exceeds 5,000 mm in many places, particularly at elevations between 1,600 and 2,500 m.

Cloud forests in Mexico and the notable biodiversity that they harbour currently face a number of severe threats. During the last half-century the highest deforestation rates have been reported in cloud forests,

considering both Mexico as a whole (4, 5) and for regions that still have considerable cloud forest cover (6, 9). In addition to global climate change, threats to cloud forest biodiversity derive from a poor representation of cloud forests within protected areas, extensive changes in land-use patterns that do not favour biodiversity, continued human population expansion into mountainous regions, and slow progress in alleviating poverty and marginalization.

CONABIO (8) and Toledo-Aceves et al. (30) compiled recommendations made by a large panel of experts on Mexican cloud forests. Most of these will be of limited application unless reliable basic information is made readily available to a wide group of stakeholders, including government officials, NGOs, academic institutions, grassroots groups, and indigenous and peasant communities. This report aims to contribute to the provision of information needed to support the planning and implementation of more effective conservation and development in Mexican cloud forest regions.

How this Red List was compiled

The preparation of this report started with a workshop held in May 2007 at El Colegio de la Frontera Sur (ECOSUR), in San Cristóbal de Las Casas, Chiapas, Mexico. The workshop brought together experts knowledgeable on the flora of this biodiversity hotspot to assess the global conservation status of tree species in montane Mexico. The workshop aimed to reach definitions and advances on: (i) the scope and content of the assessment described in this report; (ii) the application of the IUCN Red List categories and criteria for species conservation assessment using a 'pilot' list of 506 candidate cloud forest tree species from Chiapas; and (iii) the steps required to promote the widest possible collaboration of relevant Mexican scientists to compile an initial list of Mexican cloud forest tree species. In October 2007 a second meeting, attended by more than 15 experts, was held in the city of Zacatecas, coinciding with the XVII Mexican Botanical Congress. Further meetings of small regional specialist groups were held in Xalapa and Mexico City from 2007 to 2009. The editors compiled the final edition of the report from October 2009 to early March 2011.

Experts at the two 2007 meetings agreed on a number of points to guide the process:

1. Geographical scope

It was decided not to focus exclusively on Mexican endemic species, but to include cloud forest tree species that are present in Mexico but may also occur elsewhere in North America, in Central or South America, or in the Caribbean. Exceptionally, a few taxa also occur in SE Asia. The status assessment for each species is aimed to be global and not only applicable to Mexico.

2. Ecological scope

In this report cloud forest mostly includes humid forests between 1,500 and 2,500 m elevation, but cloud forest stands may occur at elevations as low as 900 m or as high as 3,000 m; there are cases of isolated mountains and outlying ridges of major ranges where the '*Massenerhebung*' effect (12) is evident and elevational vegetation belts are compressed. Cloud forest, as defined in this report, is also known in the literature as tropical montane cloud forest and is roughly equivalent to the term *bosque mesófilo de montaña*, defined by Rzedowski (24), which is widely used in Mexico. Whilst the report focuses on cloud forest trees, it was noted that many species are also able to grow in other forest types, such as oak or pine-oak forests, or even humid or dry tropical forests occurring at lower elevations.

3. Plant morphological scope

It was decided to restrict the assessment to tree species. In addition to their ecological and structural importance, there is considerably more information available for trees compared to other growth forms. A tree was defined as a monopodic woody plant with a crown height no less than 4 m. It was decided not to include palms, cycads, arborescent ferns or large shrub species, although plants reported to have both tree and shrub growth forms are included.

4. Successional scope

The report focuses on tree species that occur in old-growth cloud forests. Cloud forest specialists are expected to be highly vulnerable to climate change. They are also likely to be threatened because of the restricted and fragmented distribution of this forest type and its rapid rate of loss. Global warming and deforestation might favour the expansion of disturbance-related species currently found in secondary vegetation derived from old-growth cloud forests and they are also included in the report. Information on these latter species may be helpful in predicting changes in the composition of cloud forest and other neighbouring plant formations.

5. Sources of taxonomical information

Taxonomic information on Mexican cloud forest tree species is highly heterogeneous, with many groups urgently in need of revision. Whenever possible, experts with first-hand knowledge on the taxonomy of Mexican cloud forest trees and its related literature were consulted. The description and geographical distribution of each species was obtained from relevant floras and checklists, and in many cases involved the examination of herbarium voucher specimens. Contributing assessors were also advised to consult the *TROPICOS*® database (maintained by the Missouri Botanical Garden) as a useful information source. The adopted names of familes and

arrangement of the genera follows the system proposed by the Angiosperm Phylogeny Group II (APG II) (27). The authors in plant names follow *The International Plant Names Index* (www.ipni.org [accessed from October 2009 to March 2011]).

6. Sources of ecological information

Whenever possible, experts with first-hand field knowledge of Mexican cloud forest ecology and associated literature were consulted. Many cloud forest areas in Mexico are still poorly known, yet the amount of recent literature that includes plant lists and population size estimates for Mexican tree species was surprisingly high, as well as studies dealing with their actual or potential uses and restoration practices.

7. Information on each species

The report provides as much relevant information on each species as possible. Readers will notice that there is considerable heterogeneity among species entries, a consequence of the large number of people who participated in the project.

The list of federal states showing the distribution of the taxon in Mexico is arranged in a general geographical sequence from north to south and west to east. Whenever possible, the main text contains information on growth form and size, vegetation types where the species is found in addition to cloud forest, notes on its taxonomy, and synonyms. The elevational range is mostly based on the records of species occurrence. It was decided not to include distribution maps of the species based on georeferenced herbarium vouchers or floristic inventories, as this information is still in the process of being taxonomically and geographically verified; in addition, there are some ongoing projects aimed at providing maps based on different models of species distributions.

A frequently used source of information on common names was the remarkable encyclopedic compilation for Mexican plants by Martínez (17). Only common names used in Mexico are included (without indication of the native language). An attempt was made to include as much information as possible on current or potential uses of the species as this may help develop practices that promote their sustainable use and conservation. For some species information on techniques useful for restoration of their populations is provided.

Assessors' acronyms are listed in decreasing order of their involvement in the assessment of the species; this may be useful for readers interested in contacting assessors for further information. An effort was made to provide an extensive literature guide for as many species as possible, with the aim of contributing to design and implementation of more effective conservation and management plans.

Numerical synthesis and final remarks

The Red List of Mexican cloud forest trees includes a total of 762 species, representing 85 botanical families. The distribution of these species across the IUCN categories is indicated in the table below. These figures imply that over 60% of the tree flora of the Mexican cloud forests is threatened to some extent. This provides clear evidence of the need to strengthen conservation efforts within the region.

The Red List presented here is highly dependent on expert judgement. An implication of this was the exclusion of a number of species that have been formerly reported as Mexican cloud forest trees. This decision was made when the assessors considered them to be (i) botanical misidentifications, rather than a rare occurrence or due to a lack of recent taxonomic treatments or experts in the taxonomy of particular groups, (ii) not truly trees, even if they were reported by collectors as surpassing the 4 m height threshold, or (iii) species absent from cloud forest habitats. It is hoped that by adopting these criteria the repetition of mistakes in the literature can be minimized.

SUMMARY OF RESULTS

Conservation status	Number of species (%)
Extinct	3 (0.4)
Critically Endangered	83 (10.9)
Endangered	206 (27.0)
Vulnerable	175 (23.0)
Near Threatened	78 (10.2)
Data Deficient	2 (0.3)
Least Concern	215 (28.3)
Not Evaluated	0 (0)

It is important to note the uncertainty associated with the Red List classifications presented here, arising from the lack of detailed information on the distribution and abundance of many species, and the fact that expert judgement had to be relied on as a principal source of information. Such problems have consistently been encountered in Red List assessments of tree species (19), as in assessments of many other groups. These assessments should therefore be viewed as provisional, and as providing a basis for future refinement. The editors welcome suggestions for amendment or clarification and it is hoped this assessment will stimulate further work to remedy those areas of particular uncertainty.

The content of this report emerged from the collaboration between a large number of colleagues, yet the editors take full responsibility for its contents and any omissions.

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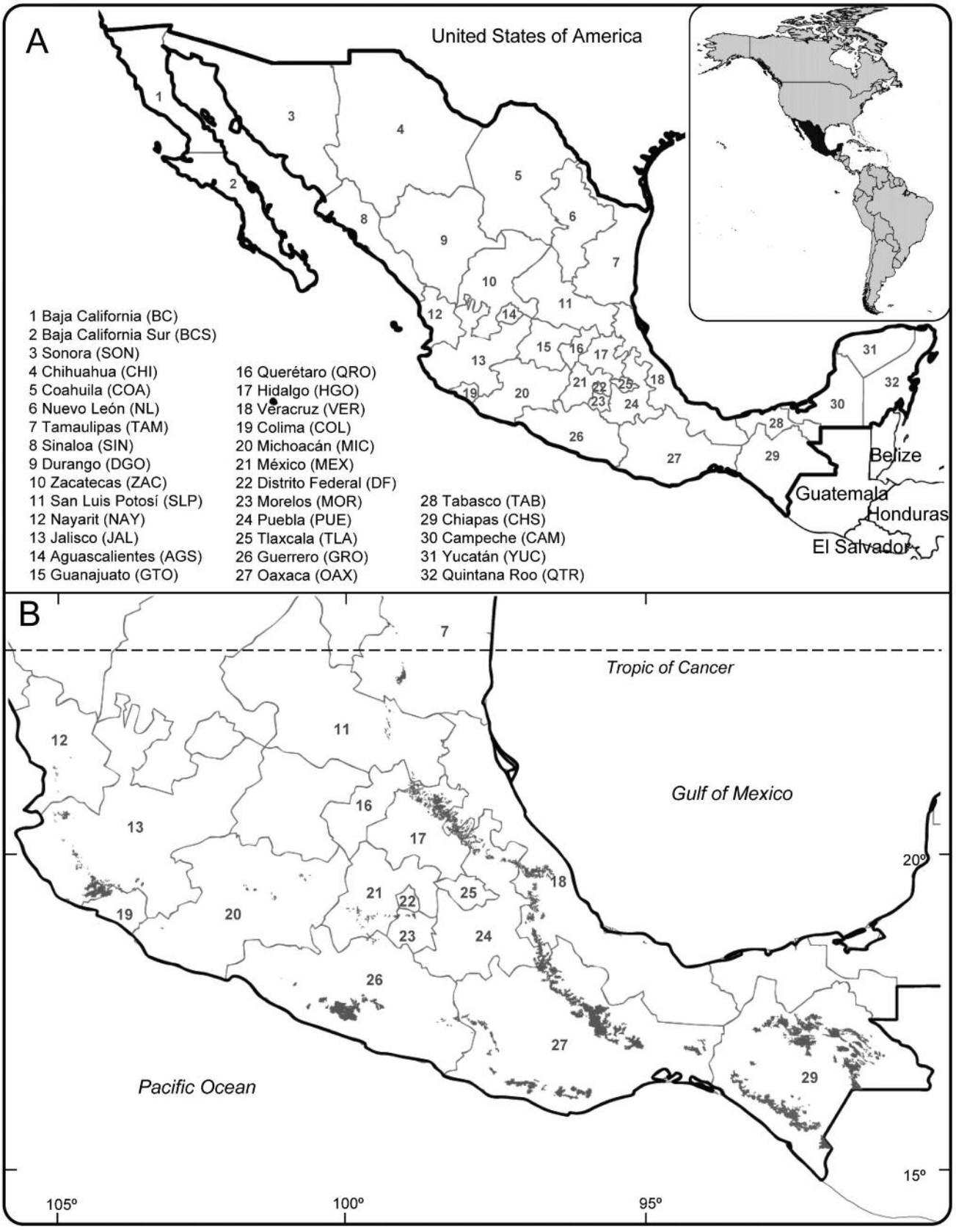
A. Location of the Mexican Federal States.
B. Distribution of montane cloud forest in Mexico (dark grey spots), based on a map by the Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO) (Toledo-Aceves *et al*. 2011).
Map credits: M.A. Romero-Romero.



THE RED LIST OF MEXICAN CLOUD FOREST TREES

ACANTHACEAE

Spathacanthus hahnianus Baill.
VU A4c
Mexico (VER, PUE, OAX, CHS), Guatemala, Honduras
Shrub or small tree, up to 8 m tall. This species occurs in cloud forest and tropical rainforest, rarely in oak forest and mostly along streams. Although the species is known from a large area in Mexico, it has not been recorded as abundant in the places where it has been collected. Outside Mexico, this taxon is known from a single collection each from Guatemala and Honduras. No uses for this species are known but it would make an attractive ornamental or garden tree.
Elevational range: 150–1,650 m
Assessor: FLH
Refs: [84, 85]

Spathacanthus parviflorus Leonard
VU A4c
Mexico (CHS), Guatemala
Shrub or small tree, up to 7 m tall. A typical cloud forest taxon, it also occurs infrequently in tropical rainforest. It grows along streams, on slopes and ridges. **Common name:** *hueso de pollo*. As with the previous species, no uses are known for this species but it also has potential as an attractive ornamental or garden tree.
Elevational range: 1,400–2,000 m
Assessor: FLH
Refs: [84, 85, 363]

ACTINIDIACEAE

Saurauia angustifolia Turcz.
VU B1ab(iii,iv)
Mexico (OAX, CHS), Guatemala, Honduras
A small understorey tree, up to 8 m tall. Fairly abundant in cloud forest but it also grows in other forest types at lower elevations. **Synonyms:** *Saurauia leucocarpa* Schltdl. var. *angustifolia* (Turcz.) Buscal., *S. anisopoda* Turcz., *S. leucocarpa* Schltdl. var. *stenophylla* Buscal.
Elevational range: 1,700–2,500 m
Assessor: MGE
Ref: [185]

Saurauia aspera Turcz.
VU B1ab(iii,iv)
Mexico (HGO, VER, OAX, TAB, CHS), Guatemala, Honduras, Nicaragua
An understorey tree, up to 10 m tall. This taxon is marginal in cloud forest, as it mainly occurs in tropical rainforest at lower elevations and in pine-oak forest. In Mexico it is known from very few localities (< 5 sites). **Synonyms:** *Saurauia englesingii* Standl., *S. perseifolia* Standl. & Steyerm. **Common names:** *ma-do-chay, mameyito, mo-do-tzá, palo de moco, pipicho, taga-tzego*. The fruit is edible and is used by several ethnic groups, who grow the species in gardens and around settlements.
Elevational range: (20) 1,300-1,500 (2,400) m
Assessors: SAC, MGE
Refs: [171, 185, 279, 333, 361]

Saurauia cana B.T.Keller & Breedlove
VU B1ab(ii,iii)
Mexico (SLP, QRO, HGO, VER, MEX, PUE, TAB)
Small tree, 5–12 m tall. This Mexican endemic species is marginal in cloud forest, it occurs more frequently in tropical rain or tropical semi-evergreen forests. It has a widespread distribution in the central part of the country. Considered by [385] as a synonym of *Saurauia scabrida* Hemsl. **Synonym:** *Saurauia villosa* var. *scabrida* Buscal.
Elevational range: 400–1,500 m
Assessors: SAC, MGE
Refs: [171, 186, 361, 385]

Saurauia comitis-rossei R.E.Schult.
EN B1ab(ii,iii)
Mexico (OAX)
Small tree up to 12 m tall. A narrow endemic, this taxon is only known from very few localities at the Sierra Madre del Sur in Oaxaca.
Elevational range: 1,050–2,290 m
Assessors: SAC, MGE
Refs: [171, 361]

Saurauia conzattii Buscal.
EN B1ab(iii)
Mexico (OAX), Guatemala, Honduras
A small tree up to 9 m tall. In Mexico it has been reported from a few localities in Oaxaca. Its populations are severely fragmented. In a recent taxonomic treatment on species from Chiapas it was reported that its Mexican distribution is restricted to Oaxaca, separating it from *Saurauia cuchumatanensis* and

S. matudae, both of which were considered synonyms of *S. conzatti* by Hunter (1966). **Common names:** *ma-do-chay, mameyito, pichito*.
Elevational range: 1,500–2,540 m
Assessors: SAC, MGE
Refs: [171, 185, 333, 361]

Saurauia cuchumatanensis Standl. & Steyerm.
EN B1ab(iii)
Mexico (CHS), Guatemala
A small tree up to 9 m tall. Occurs on slopes in cloud forest and in montane rainforest at lower elevations.
Elevational range: 1,500–2,540 m
Assessor: MGE
Ref: [185]

Saurauia kegeliana Schltdl.
VU B1ab(ii,iv)
Mexico (CHS), Guatemala, El Salvador, Honduras, Costa Rica
A mid-canopy tree, up to 25 m tall. This species occurs in cloud forest but it is also present in other humid forest formations at lower elevations. In Mexico this species has been reported from only a few localities. **Synonyms:** *Saurauia pauciserrata* Hemsl., *S. maxonii* Donn.Sm., *S. intermedia* Buscal. **Common names:** *capulín, duraznillo, moco, moquillo.* Fruit is edible but not highly regarded.
Elevational range: 550–3,000 m
Assessors: SAC, MGE
Refs: [171, 185, 241, 279, 361]

Saurauia leucocarpa Schltdl.
VU B1ab(ii,iii)
Mexico (HGO, VER, MIC, PUE, GRO, OAX, TAB, CHS), El Salvador, Honduras
An understorey tree, up to 10 m tall. This taxon is not restricted to cloud forest, it also occurs in pine-oak forest, oak forest and tropical dry forest. Known from a small number of specimens. **Synonyms:** *Saurauia barbigera* Hook., *S. pseudopringlei* Buscal. **Common name:** *ixlava.*
Elevational range: 130–1,700 m
Assessors: SAC, MGE
Refs: [171, 185, 279, 361, 438, 445]

Saurauia madrensis B.T.Keller & Breedlove
EN B1ab(i,iii)
Mexico (CHS)
A small to medium-sized understorey tree, up to 13 m tall. Endemic to Chiapas, where it is known from a few (14) localities at the Sierra Madre de Chiapas with cloud forest and pine-oak-*Liquidambar* forest. **Common name:** *moquillo*. Soft timber.
Elevational range: 1,900–3,000 m
Assessors: SAC, MGE
Refs: [171, 185, 186, 228, 361, 363]

Saurauia matudae Lundell
EN B1ab(iii)
Mexico (CHS)
A small tree, up to 7 m tall. Not an abundant species on cloud forest-covered slopes and in montane rainforest at lower elevations in the Sierra Madre de Chiapas.
Elevational range: 1,750–2,400 m
Assessor: MGE
Ref: [185]

Saurauia oreophila Hemsl.
VU B2ab(iii)
Mexico (OAX, CHS), Guatemala, Honduras
An understorey tree, up to 15 m tall, but rarely more than 12 m and with trunk up to 25 cm in diameter. In Mexico it is known only from very few localities in Oaxaca (three sites) and Chiapas (mostly in the Central Highlands). Very low germination rates have been reported (10–40%). **Synonyms:** *Saurauia latipetala* Hemsl., *S. pauciflora* Donn.Sm., *S. subalpina* Donn.Sm. **Common name:** *ajoj*.
Elevational range: (680) 1,500–2,500 (3,300) m
Assessors: SAC, MGE
Refs: [124, 171, 185, 279, 309, 361, 363]

Saurauia pedunculata Hook.
VU B2ab(ii,iii)
Mexico (VER, OAX)
A small tree, 5–8 m tall. Marginal to cloud forest, this species is also present in tropical semi-evergreen forest. Endemic to Veracruz (where it has a broad distribution) and Oaxaca.
Elevational range: 900–1,500 m
Assessor: SAC
Refs: [171, 209, 361]

Saurauia pringlei Rose
VU B1ab(iii)
Mexico (GRO, OAX)
A small tree, 5–6 m tall. This species is endemic to Guerrero (Sierra Madre del Sur) and Oaxaca (Sierra Norte). **Synonyms:** *Saurauia buscalioniana* S.F.Blake, *S. willdemannii* Buscal.
Elevational range: 1,800–2,800 m
Assessors: SAC, MGE
Refs: [115, 171, 207, 236, 333, 361]

Saurauia pustulata G.E.Hunter
EN B1ab(iii)
Mexico (TAB, CHS)
A small tree up to 10 m tall. This species is endemic to Chiapas and Tabasco, where it has been collected at very few localities (four and one sites in those states, respectively).
Elevational range: c. 1,700 m
Assessors: SAC, MGE
Refs: [171, 185, 361]

Saurauia rubiformis Vatke
VU B2ab(iii)
Mexico (TAB, CHS), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
A small understorey tree, 3–9 m tall, present in humid primary forests and secondary vegetation. **Synonyms:** *Saurauia polyantha* Gilg., *S. pseudorubiformis* Buscal., *S. sarapiquensis* Carrière
Elevational range: (500)1,550–2,600 m
Assessors: SAC, MGE
Refs: [171, 185, 279, 361, 438]

Saurauia scabrida Hemsl.
NT
Mexico (SLP, QRO, HGO, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras
An understorey tree up to 15 m tall and trunk up to 20 cm in diameter. Found in cloud forest, this species also occurs in oak and pine-oak forest, tropical rainforest, and in shade-grown coffee plantations. Widely distributed in Veracruz and Chiapas. **Synonyms:** *Saurauia cana* B.T.Keller & Breedlove [385], *S. nelsonii* Rose. **Common names:** *acaluma, almendrillo, calama, cerbatana, ixtlahuatl, mameycillo, mameyito, moco, moco blanco, moquillo, muk'ul ahoh, nistamalillo, pipicho, ts'een xixte', zapotillo*. A source of firewood and fruit is edible.
Elevational range: (345) 500–2,100 (2,900) m
Assessors: SAC, MGE, GIM
Refs: [58, 171, 173, 185, 228, 279, 285, 295, 333, 361, 385, 438]

Saurauia selerorum Buscal.
NT
Mexico (CHS), Guatemala, El Salvador, Honduras
An understorey tree up to 12 m tall. Fairly abundant in cloud forests of the Sierra Madre de Chiapas but also present in forest formations at lower elevations. Similar to *S. aspera*.
Elevational range: 1,600–2,400 m
Assessor: MGE
Ref: [185]

Saurauia serrata DC.
VU B1ab(iii)
Mexico (SIN, NAY, JAL, VER, COL, MIC, MEX, MOR, GRO, OAX, TAB, CHS)
A small tree, 6–15 m tall. This species is not restricted to cloud forest. Reported from a few localities in all states along the Pacific coast from Sinaloa to Chiapas, as well as in Morelos. **Synonyms:** *Saurauia fluviatilis* (Buscal.) Rose ex Buscal., *S. pseudopedunculata* Buscal., *S. reticulata* Rose. **Common names:** *mameyito, mameyito blanco, moquillo, níspero*.
Elevational range: 400–2,500 m
Assessors: SAC, MGE
Refs: [2, 76, 79, 96, 171, 207, 234, 278, 288, 351, 356, 357, 361, 428, 429, 438]

Saurauia villosa DC.
EN B1ab(ii,iii)
Mexico (VER, OAX, CHS), Guatemala, El Salvador, Honduras
An understorey tree, up to 15 m tall. This species is not restricted to cloud forests; it also occurs in pine–oak forests and secondary vegetation. In Mexico this taxon is known only from a few localities in Veracruz, Oaxaca, and Chiapas. **Synonyms:** *Saurauia macrophylla* Linden ex Lindl. & Paxton, *Saurauia obelanthera* Turcz., *Saurauia pseudopeduncularis* Buscal., *S. speluncicola* R.E.Schult. **Common names:** *ajob, barba de toro, tzoni*.
Elevational range: 550–2,065 m
Assessors: SAC, MGE
Refs: [171, 185, 241, 279, 333, 361]

Saurauia zahlbruckneri Buscal.
VU B2ab(iii)
Mexico (CHS), Guatemala, El Salvador, Honduras, Costa Rica
A small tree, up to 12 m tall. This species is not restricted to cloud forest. In Mexico it is known only from very few localities in Chiapas, in areas neighbouring Guatemala.
Elevational range: 1,300–2,500 m
Assessors: SAC, MGE
Refs: [171, 185, 361]

ADOXACEAE

Viburnum acutifolium Benth.
EN B1ab(iii)
Mexico (OAX, CHS)
Small tree, 3–6 m tall. This species occurs mainly in high elevation cloud forest. The taxonomy of several Mexican species of *Viburnum* is still unsettled; *V. acutifolium* is one of those species. As circumscribed here, the species is restricted to southern Mexico. Records from the state of México, Michoacán and Jalisco must be wrong.
Elevational range: (1,300) 1,750–2,500 (2,850) m
Assessor: FLH
Ref: [237]

Viburnum blandum C.V.Morton
VU B1ab(iii)
Mexico (OAX, CHS), Guatemala, El Salvador
Small tree, 3–5 m tall. This species grows mostly in mixed pine-oak forest, its presence in cloud forest is occasional.
Elevational range: 1,300–2,800 m
Assessor: FLH
Ref: [228]

Viburnum ciliatum Greenm.
EN B1ab(iii)
Mexico (SLP, HGO, VER, PUE)
Small tree, 3–6 m tall. It is commonly found in cloud forest but also in pine and oak forest. Sometimes locally abundant along streams. This taxon is endemic to Mexico, with a distribution restricted to the Sierra Madre Oriental. **Common name:** *platanillo*.
Elevational range: 900–2,300 m
Assessor: FLH
Refs: [4, 229, 236, 295, 437]

Viburnum discolor Benth.
VU B1ab(iii)
Mexico (OAX, CHS), Guatemala
Small tree (2.5–6 m tall). This species is rare in cloud forest and it mostly grows in pine-oak forest or pine-fir forest.
Elevational range: (1,800) 2,200–3,200 m
Assessor: FLH
Refs: [29, 254]

Viburnum disjunctum C.V.Morton var. ***mendax*** (C.V.Morton) D.N.Gibson
EN B1ab(iii)
Mexico (CHS), Guatemala
Small tree, 3–5 m tall. A rare taxon of cloud forest.
Elevational range: 1,600–2,500 m
Assessor: FLH
Ref: [254]

Viburnum elatum Benth.
VU B1ab(iii)
Mexico (NL, TAM, SIN, SLP, NAY, JAL, GTO, QRO, HGO, MIC, MEX, DF, GRO, CHS)
Small tree, 2–8 m tall. Rarely present in cloud forest, this species is more frequent in mixed pine-oak forest. Endemic to Mexico but widespread in the country. **Common name:** *pasilla*. Tree used in folk medicine.
Elevational range: (1,600) 2,200–3,000 m
Assessor: FLH
Refs: [76, 135, 302, 436]

Viburnum jucundum C.V.Morton
EN B1ab(iii)
Mexico (OAX, CHS), Guatemala, El Salvador
Small tree, 3–6 m tall. A frequent cloud forest element, it also grows in pine-oak forest and pine-fir forest. **Synonyms:** *Viburnum chiapense* Lundell, *V. matudae* Morton. **Common names:** *isbón, tzop*.
Elevational range: 1,700–3,100 (3,900) m
Assessor: FLH
Refs: [124, 133, 135, 189, 228, 302, 309]

Viburnum microcarpum Schltdl. & Cham.
VU B1ab(iii)
Mexico (HGO, VER, PUE, OAX)
Small tree, 3–7 m tall. Apparently this taxon is rare in cloud forest, and it is more frequently found in oak forest, pine-oak forest, pine forest, as well as in secondary vegetation derived from these plant communities. **Common name:** *negro*.
Elevational range: (900) 1,300–2,100 (2,800) m
Assessor: FLH
Ref: [437]

Viburnum obtusatum D.N.Gibson
CR B1ab(iii)
Mexico (CHS)
Small tree, 3–7 m tall. Rare in high elevation cloud forest. Apparently endemic to a small area around the Tzontehuitz Volcano in Chiapas, an area where severe deforestation has occurred.
Elevational range: 2,500–2,800 m
Assessor: FLH
Ref: [254]

Viburnum tiliifolium (Oerst.) Hemsl.
VU B1ab(iii)
Mexico (SLP, HGO, VER, PUE, GRO, OAX)
Small tree, 3–7 (10) m tall. Apparently rare in cloud forest, this species is more frequent in oak forest, pine forest, pine-oak forest, pine-fir forest, as well as in secondary vegetation derived from these plant communities. **Synonyms:** *Oreinotinus tiliifolius* Oerst., *Viburnum rhombifolium* (Oerst.) Hemsl. **Common name:** *negro*.
Elevational range: 400–2,800 m
Assessor: FLH
Refs: [4, 229, 437]

ANACARDIACEAE

Spondias radlkoferi Donn.Sm.
NT
Mexico (VER, OAX, CHS, CAM), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela
Deciduous medium-sized to large tree, up to 30 m tall. Very marginal as a cloud forest taxon, this species is relatively abundant in lowland forests where it occurs preferentially. **Common name:** *jobo*. Used for making fence posts.
Elevational range: 50–500 (900) m
Assessors: JAM, ILV, SVA
Refs: [173, 279]

Tapirira mexicana Marchand
VU B1ab(iii)
Mexico (VER, PUE, OAX, CHS), Belize, Costa Rica, Guatemala, Honduras, Nicaragua, Panama
Large tree, up to 30 m tall and trunk up to 70 cm in diameter, although usually smaller in cloud forest. This species used to be an abundant canopy tree in cloud forest and adjacent tropical montane rainforests. It occurs in the Gulf of Mexico slope and on the Pacific slopes of the Sierra Madre del Sur. **Common names:** *bienvenido, cacao, caobilla, duraznillo, huinchini, jobo, nompi*. Its wood, similar to mahogany or caoba (*Swietenia macrophylla*). It is used locally for making furniture, window frames and doors.
Elevational range: 500–1,400 (1,800) m
Assessors: GWL, FLH, MJP
Refs: [173, 225, 279, 285, 399]

Annonaceae

Annona liebmanniana Baill.
EN A4c
Mexico (OAX, CHS), Guatemala, Belize
Medium-sized to large tree, up to 30 m tall and trunk up to 30 cm in diameter. This species grows in cloud forest and moist tropical forests of lower elevations; yet its geographical range in Mexico is highly restricted.
Elevational range: 100–850 m
Assessors: JAM, GIM, SVA, ILV
Refs: [104, 218]

Desmopsis lanceolata Lundell
CR A4c; B1ab(i,iii)
Mexico (CHS)
Shrub or small tree. A narrow Mexican endemic species, it is known from three localities of the Sierra Madre of Chiapas only. This rare cloud forest species also grows occasionally in adjacent lowland tropical rainforest.
Elevational range: 750–1,500 m
Assessors: JAM, GIM, SVA, ILV
Ref: [29]

Desmopsis trunciflora (Schltdl. & Cham.) G.E.Schatz
EN A4c
Mexico (JAL, VER, OAX, TAB, CHS)
Small tree, up to 8 m tall. This Mexican endemic species has a very marginal presence in cloud forest, and it is only found in Jalisco, within the limits of the Sierra de Manantlán Biosphere Reserve, where populations have been recorded in the understorey of this vegetation type. This tree normally grows in tropical rainforest and tropical evergreen forest of the lowland Gulf of Mexico slope, where it is scarce. Population structure analyses suggest that this species has good regeneration in cloud forest communities.
Elevational range: 250–1,450 m
Assessors: JAM, GIM
Refs: [80, 173]

Guatteria galeottiana Baill.
EN A4c; B1ab(iii)
Mexico (VER, OAX, CAM)
Shrub to medium-sized tree, up to 14 m tall. This narrow endemic species is only known from a few localities. Typical of primary forest but not restricted to cloud forest, as it also occurs in lowland tropical rainforest and tropical evergreen forest. **Common names:** *cananga, ma-hum-sey*.
Elevational range: 200–1,400 m
Assessors: JAM, GIM, SVA, ILV
Refs: [218, 225, 333, 376, 431]

Rollinia membranacea Triana & Planch.
VU A4c
Mexico (VER, OAX, CHS), Guatemala, El Salvador, Nicaragua, Costa Rica, Panama, Colombia
Small to medium-sized tree, up to 15 m tall. In addition to cloud forest, this species also occurs in drier forest formations, such as tropical dry forest and tropical evergreen forest. Individuals of this species are typically scarce in the forest communities where it is present, so that this species is normally considered to be locally rare.
Elevational range: (0) 600–1,400 (1,700) m
Assessors: JAM, GIM, SVA, ILV
Refs: [219, 279, 285, 358]

Apocynaceae

Alstonia longifolia (A.DC.) Pichon
VU A4c
Mexico (JAL, MIC, GRO, VER, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Tree, up to 20 m tall. A widespread cloud forest species, it also occurs in tropical dry forest, pine-oak forest and riparian habitats of several vegetation types. **Synonyms:** *Rauvolfia longifolia* A.DC., *Tonduzia longifolia* (A.DC.) Markgr.
Elevational range: 200–1,800 m
Assessors: JAM, SVA, ILV
Refs: [95, 279, 450]

Alstonia pittieri (Donn.Sm.) A.H.Gentry
VU A4c
Mexico (NAY, JAL, VER, COL, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Nicaragua, Costa Rica
Small tree, up to 4 m tall. A widespread cloud forest component, this species also grows in tropical dry forest, tropical semi-evergreen forest, oak forest and in riparian habitats. Some taxonomic treatments consider this species a synonym of *Alstonia longifolia* (A.DC.) Pichon.
Elevational range: 250–1,800 m
Assessors: JAM, SVA, ILV
Refs: [76, 95, 279, 450]

Stemmadenia litoralis (Kunth) L.Allorge
VU A4c
United States, Mexico (NAY, HGO, VER, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC), Guatemala, Nicaragua, Costa Rica, Panama, Colombia, Cuba, Jamaica
Shrub or small tree, up to 12 m tall. In Mexico this species is rarely a cloud forest component (only in Chiapas and Hidalgo), as it occurs more frequently in lowland and mid-elevation tropical forest formations. **Synonyms:** *Stemmadenia galeottiana* (A.Rich) Miers, *S. greenmani* Woodson, *S. macrophylla* Greenm.
Elevational range: 180–1,350 m
Assessors: JAM, SVA, ILV
Ref: [246]

Vallesia aurantiaca (M.Martens & Galeotti) J.F.Morales
NT
Mexico (SON, CHI, JAL, VER, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica
Medium-sized tree, up to 20 m tall. A widespread cloud forest species, it is also present in seasonal formations such as tropical dry forest, oak forest and pine forest. **Synonyms:** *Vallesia flexuosa* Woodson, *V. mexicana* Müll.Arg.
Elevational range: 1,500–2,600 m
Assessors: JAM, SVA, ILV
Refs: [96, 115, 238, 248, 279, 451]

Vallesia spectabilis El.Mey. ex J.F.Morales
CR B1ab(iii)
Mexico (JAL)
Small tree, up to 7 m. A very narrow cloud forest species, this taxon is only known from the Las Joyas locality in the Sierra de Manantlán Biosphere Reserve.
Elevation: 1,500 m
Assessors: JAM, SVA, ILV
Refs: [82, 245]

AQUIFOLIACEAE

Ilex dugesii Fernald
VU A1c
Mexico (NAY, JAL, GTO, MIC)
Tree, (5) 10–15 m tall, apparently dioecious. Formerly occurring in cloud forest, oak forest and conifer forest, particularly in riparian habitats, this species is extremely rare in the El Bajío region of central Mexico where it has probably gone extinct (last collected in the region in 1891). **Common name:** *naranjillo*.
Elevational range: 850–2,300 m
Assessors: GIM, ECG, GCT, SAC
Refs: [53, 142, 429]

Ilex quercetorum I.M.Johnst.
VU B1ab(ii,iii)
Mexico (DGO [?], VER, OAX, CHS), Guatemala, Honduras
Tree, 15–25 m tall. A frequently found species in cloud forest as well as in tropical rainforest, tropical semi-evergreen forest, pine forest, and pine-oak forest. **Common name:** *palo verde.*
Elevational range: 200–2,200 m
Assessors: GIM, ECG, GCT, SAC
Refs: [173, 209, 279]

Ilex servinii E.Carranza
EN A4c
Mexico (QRO)
Tree, 6–10 m tall, apparently dioecious. Specimens (three vouchers) were collected in 1990, all of which are from cloud forest and pine-oak forest.
Elevational range: 1,300–1,500 m
Assessors: GIM, ECG, GCT, SAC
Ref: [53]

ARALIACEAE

Dendropanax hondurensis M.J.Cannon & Cannon
CR A1cd; B2ab(iii)
Mexico (CHS), Honduras
Large tree, up to 36 m tall, self-standing but occasionally epiphytic. A typically highland tree species; for Mexico there is a single record of this taxon from Chiapas, based on a specimen collected by F. Miranda in 1953. Unfortunately, this specimen lacks sufficient collecting information (an elevation of 1,700–2,000 m near the locality of Pueblo Nuevo Solistahuacán can be inferred through interpolation of Miranda's other collecting numbers). Habitat destruction has been severe in the region since the 1950s.
Elevational range: 1,540–2,700 m
Assessors: MGE, GIM
Refs: [44, 45]

Dendropanax leptopodus (Donn.Sm.) A.C.Sm.
EN A4c
Mexico (SLP, GRO, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Panama
Shrub or medium-sized tree, up to 9 m tall. A typical cloud forest element, this species is noteworthy for having a wide but notoriously disjunct distribution in the country. **Synonym:** *Gilibertia leptopoda* Donn.Sm.
Elevational range: 0–2,200 m
Assessors: JAM, ILV, SVA
Refs: [45, 207, 279]

Dendropanax pallidus M.J.Cannon & Cannon
CR A4; B2ab(iii)
Mexico (CHS), Guatemala, El Salvador
Medium-sized tree, up to 20 m tall. A typical cloud forest species, its elevational range extends well into the lowlands, particularly into the tropical rainforest region. Individuals of this species grow frequently on very steep slopes. In Mexico it is only known from the Sierra Madre of Chiapas. Narrowly endemic to Guatemala and its close vicinity in neighbouring countries.
Elevational range: 800–2,200 m
Assessors: JAM, ILV, SVA
Ref: [45]

Dendropanax populifolius (Marchal) A.C.Sm.
CR B2ab(iii,iv)
Mexico (OAX, CHS)
Small tree, up to 10 m tall. Exclusive to old-growth, very wet forests in Chiapas (El Triunfo Biosphere Reserve) and Oaxaca (La Chinantla), on a very narrow elevational range of c. 300 m wide. This species is very likely to be at risk owing to climatic change, as it would probably not withstand successfully shifts towards drier conditions. **Synonym:** *Gilibertia populifolia* Marchal.
Elevational range: 1,850–2,200 m
Assessors: JAM, ILV, SVA
Refs: [45, 363]

Oreopanax arcanus A.C.Sm.
CR A4c
Mexico (CHS), Guatemala
Small tree, up to 12 m tall, self-standing but frequently epiphytic. A narrowly endemic species restricted to the Central Highlands and the Sierra Madre of Chiapas. There is one record from Guatemala without indication of locality. This species is frequently found on steep slopes in very humid areas, particularly in cloud forest stands.
Elevational range: 1,300–2,650 m
Assessors: JAM, ILV, SVA
Refs: [46, 279]

Oreopanax capitatus (Jacq.) Decne. & Planch.
NT
Mexico (HGO, VER, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, French Guiana, Ecuador, Peru, Brazil, Cuba, Dominican Republic, Lesser Antilles
Medium-sized to very large tree, up to 40 m tall, terrestrial or hemi-epiphytic. This species is a typical cloud forest component, although it also occurs in humid lowland forests. Usually very abundant in the communities where it occurs including secondary vegetation stands. **Synonyms:** *Aralia capitata* Jacq., *Oreopanax meiocephalum* Donn.Sm. **Common names:** *cabellera de palo, choco, coamatl, coletón, matapalo.*
Elevational range: 100–2,600 (3,100) m
Assessors: JAM, ILV, SVA
Refs: [46, 72, 126, 225, 279, 347, 445]

Oreopanax echinops (Cham. & Schltdl.) Decne. & Planch.
VU A4c
Mexico (JAL, HGO, VER, MIC, MEX, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras
Large shrub or tree, up to 15 m tall, self-standing. This taxon is not restricted to cloud forest as it also occurs in other mountain forest formations such as oak and pine forest. **Synonym:** *Aralia echinops* Cham & Schltdl. **Common name:** *cinco hojas*.
Elevational range: (684) 1,100– 2,400 m
Assessors: JAM, ILV, SVA
Refs: [46, 72, 76, 79, 96, 115, 191, 192, 207, 209, 278, 279, 357, 429]

Oreopanax flaccidus Marchal
CR A4c
Mexico (HGO, VER, PUE, OAX)
Epiphytic shrub or tree, 6–8 m tall. This species is almost exclusive to cloud forest communities but it may also be occasionally found in pine forest and oak forest. The very low number of specimens deposited at herbaria suggests that this is a very scarce species.
Elevational range: 1,600– 2,900 m
Assessors: JAM, ILV, SVA
Refs: [4, 72, 229]

Oreopanax guatemalensis (Lem. ex Bosse) Decne. & Planch.
NT
Mexico (VER, TAB, CHS, CAM), Guatemala, Belize, El Salvador, Honduras, Costa Rica
A hemiepiphytic or epiphytic large shrub or small tree, up to 20 m tall. Although not restricted to cloud forest, this species has a strong preference for closed, humid forests, particularly in tropical rainforest and tropical semi-evergreen forest. It can also be found in pine forest and on roadsides. It may be locally abundant but its habitat is being largely affected by deforestation. However, it often grows in secondary vegetation stands. **Synonyms:** *Aralia guatemalensis* Hort. & Lem., *Oreopanax obtusifolius* L.O.Williams.
Elevational range: 0–2,000 (2,800) m
Assessors: JAM, ILV, SVA
Refs: [46, 72, 279]

Oreopanax liebmannii Marchal
VU A4c
Mexico (VER, OAX, CHS), Guatemala, Honduras, Costa Rica, Panama
Large shrub or small tree, up to 9 m tall, almost always epiphytic. Although this tree is not a cloud forest specialist, it is always associated with humid forests, including humid oak forest. The species is moderately abundant across its entire elevational range but most records are from sites above 1,500 m. In a recent taxonomic treatment it was suggested that this species could be a synonym of *O. capitatus* (Jacq.) Decne., based on the difficulty of separating the two species in material from Nicaragua. The decision to maintain this species in the list is based on the fact that such difficulty has not been encountered for Mexican material. **Common name:** *oncoy*.
Elevational range: (100) 350–2,700 m
Assessors: JAM, ILV, SVA
Refs: [46, 72, 126, 279]

Oreopanax peltatus Linden
NT
Mexico (SON, SIN, NAY, JAL, VER, COL, MIC, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica
Medium-sized tree, up to 15 m tall. A typical cloud forest species, it also occurs in several other forest formations including tropical rainforest, tropical semi-evergreen forest, oak forest and pine forest. **Synonyms:** *Oreopanax jaliscana* S.Wats., *O. salvinii* Hemsl. **Common names:** *coleto, mano de león, papaya cimarrona, palo de coleto, tronador.*
Elevational range: 100–2,500 m
Assessors: JAM, ILV, SVA
Refs: [2, 46, 72, 76, 180, 191, 225, 277, 309, 351]

Oreopanax platyphyllus Marchal
CR A4c
Mexico (VER, OAX[?], CHS), Guatemala
Medium-sized tree, up to 16 m tall. A scarce cloud forest species, it also occurs in pine-oak forest. **Synonym:** *Oreopanax ripicola* L.O.Williams.
Elevational range: (50) 900–2,000 m
Assessors: JAM, ILV, SVA
Ref: [46]

Oreopanax sanderianus Hemsl.
EN A4c
Mexico (GRO, OAX, CHS), Guatemala, El Salvador, Honduras
Small tree, self-standing but more often epiphytic, up to 18 m tall. A fairly abundant cloud forest species, this taxon occurs in less humid forest types as well. In Mexico most known populations are located in Chiapas. **Common name:** *coletillo*
Elevational range: 550–2,300 m
Assessors: JAM, ILV, SVA
Refs: [46, 96, 115, 180, 191, 228, 236, 279]

Oreopanax xalapensis (Kunth) Decne. & Planch.
NT
Mexico (NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama
Medium-sized tree, up to 30 m tall. In addition to its well-known presence in cloud forest, this species is a frequent component of tropical dry forest, tropical semi-evergreen forest, tropical rainforest and oak forest. It is locally abundant but its habitats are being severely threatened by deforestation. Detailed demographic and genetic studies have been conducted in populations from the Central Plateau of Chiapas. **Synonyms:** *Aralia xalapensis* Kunth, *O. langlassei* Standl (but at least in one locality in Oaxaca and one in Guerrero the two species are readily distinguished without any confusion, based on very different leaf morphologies), *O. loesenerianus* Harms, *O. taubertianum* Donn.Sm. **Common names:** *acubisi, jabnal, macuilillo, mano de danta, mano de león, mano de santa, mano de tigre, mazorca, pata de gallo, siete hojas, tamalcobaite de montaña, xocotamal, yich'akmut.* This species is planted as an ornamental and shade tree.
Elevational range: (380) 800–3,000 (3,400) m
Assessors: JAM, ILV, SVA
Refs: [2, 4, 46, 70, 71, 76, 96, 115, 124, 126, 133, 135, 166, 180, 191, 192, 207, 209, 225, 228, 229, 236, 238, 267, 277, 279, 285, 295, 302, 309, 336, 356, 433, 444]

ASTERACEAE

Critoniadelphus nubigenus (Benth.) R.M.King & H.Rob.
EN B1ab(iii)
Mexico (CHS), Guatemala, El Salvador, Honduras
Small tree, 4–9 m tall. This species is restricted to cloud forest in Chiapas, the only Mexican state where it occurs. **Synonyms:** *Critonia nubigena* (Benth.) R.M.King & H.Rob., *Eupatorium nubigenum* Benth. **Common name:** *árbol de miel*. It is used in folk medicine.
Elevational range: 1,300–3,000 m
Assessors: GIM, GCT
Refs: [124, 279, 309, 440]

Critoniopsis baadii (McVaugh) H.Rob.
EN B1ab(iii)
Mexico (JAL, COL, MIC)
Treelike shrub or small tree, 2–4 m tall and trunk up to 23 cm in diameter. This species is present in cloud forest, oak forest and pine-oak forest. **Synonyms:** *Vernonia baadii* (McVaugh) S.B.Jones, *V. salicifolia* (Mart.) Less. var. *baadii* McVaugh
Elevational range: 1,000–2,000 m
Assessors: GIM, GCT
Refs: [76, 231, 438]

Koanophyllon pittieri (Klatt) R.M.King & H.Rob.
VU B1ab(ii)
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Small tree, 2–6 m tall. This is a pioneer species in the tropical rainforest successional dynamics and is probably rare in cloud forest. **Synonyms:** *Eupatorium galeottii* B.L.Rob., *E. pittieri* Klatt, *Koanophyllon galeottii* (B.L.Rob.) R.M.King & H.Rob. **Common name:** *leñador*. The trunk is used for making fences.
Elevational range: 150–1,500 m
Assessors: GIM, GCT
Refs: [173, 279, 439, 440]

Montanoa revealii H.Rob.
EN B1ab(iii)
Mexico (GRO, OAX)
Small to medium-sized tree (4) 10–15 m tall and trunk up to 15 cm in diameter. This taxon is equally abundant in cloud forest and pine-oak forest. *Montanoa subtruncata* A.Gray, *M. hexagona* B.L.Rob. & Greenm. and *M. karwinskii* DC. are closely related species.
Elevational range: 1,830–3,000 m
Assessors: GIM, GCT
Refs: [180, 327, 438]

Telanthophora cobanensis (J.M.Coult.) H.Rob. & Brettell
EN B1ab(ii)
Mexico (OAX, CHS), Guatemala, Belize, El Salvador, Honduras
Shrub or small tree, 1–9 m tall. This taxon is a cloud forest specialist. **Synonym:** *Senecio cobanensis* J.M.Coult.
Elevational range: 1,325–2,400 m
Assessors: GIM, GCT
Refs: [228, 279, 439]

Telanthophora standleyi (Greenm.) H.Rob. & Brettell
EN B1ab(iii)
Mexico (JAL, MIC, GRO)
Shrub or small tree, 3–8 m tall and trunk up to 12 cm in diameter. A cloud forest specialist, this species has been reported from very few localities. **Synonyms:** *Senecio standleyi* Greenm., *Telanthophora jaliscana* (Greenm.) H.Rob. & Brettell
Elevational range: 1,500–2,200 m
Assessors: GIM, GCT
Refs: [76, 154, 231, 328, 429, 438]

Verbesina lanata B.L.Rob. & Greenm.
EN B1ab(ii)
Mexico (CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Small to medium-sized tree, 3–15 m tall. This species occurs in cloud forest, pine forest and tropical rainforest, frequently in riparian habitats.
Elevational range: 500–2,500 m
Assessors: GIM, GCT
Ref: [392]

Berberidaceae

Berberis gracilis Benth.
VU A4c
Mexico (NL, TAM, SLP, HGO, VER, OAX)
Large shrub or small, slender tree, up to 7 m tall. This species is nearly endemic to the Sierra Madre Oriental range. A cloud forest occasional taxon, more frequently found in pine-oak forest and pine-juniper forest, also commonly present in secondary vegetation. **Synonyms:** *Mahonia gracilis* (Benth.) Fedde, *M. subintegrifolia* Fedde, *Odostemon gracilis* (Benth.) Standl. **Common name:** *palo amarillo*.
Elevational range: 1,740–2,400 m
Assessor: JAM
Refs: [221, 225, 300]

Berberis hartwegii Benth.
VU A4c
Mexico (TAM, SLP, HGO, VER)
Small tree, up to 5 m tall. An endemic Mexican taxon whose distributional range is restricted to the Sierra Madre Oriental. This is a typical primary cloud forest tree, although it also occurs in pine forest and oak forest. **Synonyms:** *Mahonia hartwegii* (Benth.) Fedde, *Odostemon hartwegii* (Benth.) Standl. **Common names:** *chochoco, xoxoco*.
Elevational range: 1,100–2,500 m
Assessor: JAM
Ref: [221]

Berberis incerta (Fedde) Marroquín
EN A4c; B1ab(iii)
Mexico (HGO, VER)
Shrub or small tree, up to 5 m tall. This Mexican endemic taxon is not restricted to cloud forest as it is also present in pine-oak forest. Populations seem to always have low densities. **Synonyms:** *Mahonia incerta* Fedde, *Odostemon incertus* Standl.
Elevational range: 2,250 m
Assessor: JAM
Refs: [221, 356]

Berberis moranensis Schult. & Schult.f.
VU A4c
Mexico (SIN, JAL, GTO, VER, MIC, PUE, OAX)
Large shrub or small tree, up to 10 m tall. This is a fairly frequent cloud forest species that also occurs in pine forest and oak forest where it shows a strong preference for shaded, humid ravines. The species is noteworthy for having a very high inter-population morphological variation. **Synonyms:** *Berberis pinnata* Sessé & Mociño, *Mahonia moranensis* (Schult. & Schult.f.) I.M.Johnst., *M. pinnata* Kunth, *Odostemon fascicularis* (DC.) Abrams. **Common names:** *agritos, ixcapul serrano, palo amarillo, palo de teñir, retamilla, yagabuxe*.
Elevational range: (1,600) 1,800–3,150 m
Assessor: JAM
Ref: [221]

Betulaceae

Carpinus caroliniana Walter
NT
Canada, United States, Mexico (NL, TAM, NAY, JAL, HGO, VER, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua
A small to medium-sized tree, up to 30 m tall and trunk up to 100 cm in diameter, very typical of cloud forest but also found in oak, pine-oak and pine forest. Populations in the United States and Canada are large but those in Mexico and Central America are considerably more endangered because of extensive deforestation of cloud forests. Seedlings can be produced from fruits collected from the trees; germination is low (< 40%). **Synonyms:** *Carpinus americana* Michx., *C. betulus* L. var. *virginiana* Marsh., *C. caroliniana* var. *tropicalis* (Donn.Sm.) Standl., *C. caroliniana* var. *virginiana* (Marsh.) Fern., *C. tropicalis* (Donn.Sm.) Lundell, C. *tropicalis* subsp. *mexicana* Furlowl. **Common names:** *alisillo, c'ut bah té, capillero, caxin, dsuram cura, lechillo, mora blanca, mora de la sierra, moralillo, oreja de ratón, palo barranco, palo blanco, palo de barranca, palo barranco, palo borracho, palo liso, pepinque, pipinque, tzaráracua-ucua, tzutcamay.* Used as a source of fuelwood.
Elevational range: 1,200–2,200 (2,600) m (close to sea level in SE United States)
Assessors: ILV, NRM, MGE
Refs: [2, 4, 31, 57, 58, 76, 79, 96, 115, 135, 137, 143, 180, 207, 209, 213, 229, 236, 277–279, 285, 295, 309, 348, 356, 357, 363, 428, 429, 445]

Ostrya virginiana (Mill.) K.Koch
NT
Canada, United States, Mexico (SON, CHI, COA, NL, TAM, SIN, DGO, SLP, NAY, JAL, QRO, HGO, VER, MIC, MEX, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras
A cloud forest tree species, up to 25 m tall and trunk up to 50 cm in diameter, but also occurs on moist and shaded slopes covered with oak, pine-oak and pine forest at mid-elevations. Populations in Canada and the United States are large but those in Mexico and Central America are more endangered because of deforestation. Seedlings can be readily produced from fruits collected from the trees; germination is rather low (< 40%). **Synonyms:** *Carpinus virginiana* Mill., *Ostrya guatemalensis* (H.J.P.Winkl.) Rose, *O. mexicana* Rose, *O. virginiana* var. *guatemalensis* (Winkl.) Macbride. **Common names:** *guapaque, guichin, mora, mora roja, palo blanco moro, pepinque, petatillo, pipinque, tzutujté.* The wood is dark and hard. Bark and leaves are used in folk medicine; much sought after for timber.
Elevational range: 1,200–2,350 (2,800) m (below 200 m in Canada and the United States).
Assessors: ILV, MGE
Refs: [4, 57, 58, 76, 79, 96, 115, 135, 137, 143, 180, 207, 209, 213, 228, 229, 236, 241, 279, 295, 300–302, 309, 348, 356, 357, 428, 429, 438, 445]

Bignoniaceae

Amphitecna macrophylla (Seem.) Miers ex Baill.
VU A1c
Mexico (VER, OAX, CHS), Guatemala
Small pachycaulous tree, 2–12 m tall. In addition to cloud forest, this species also occurs in oak forest and secondary vegetation. This taxon is suspected to have become extinct in Veracruz. **Synonym:** *Crescentia macrophylla* Seem. **Common name:** *huiro de montaña*.
Elevational range: 700–1,300 m
Assessors: GIM, GCT
Ref: [127]

Amphitecna montana L.O.Williams
EN B1ab(iii)
Mexico (CHS), Guatemala, Honduras
Medium-sized tree, 10–20 m tall. This species is narrowly restricted to cloud forest. **Synonym:** *Dendrosicus montanus* (L.O.Williams) A.H.Gentry.
Elevational range: 1,500–2,600 m
Assessors: GIM, GCT
Refs: [127, 228, 363]

Amphitecna steyermarkii (A.H.Gentry) A.H.Gentry
EN B1ab(iii)
Mexico (CHS), Guatemala
Small tree, 8–10 m tall. This cloud forest species also occurs in oak forest. **Synonym:** *Dendrosicus steyermarkii* A.H.Gentry.
Elevational range: 1,000–1,380 m
Assessors: GIM, GCT
Ref: [127]

Boraginaceae

Tournefortia petiolaris A.DC.
EN A4c
Mexico (MIC, MEX, MOR, CHS), Guatemala, El Salvador, Honduras, Colombia
Shrub or small, slender tree, up to 8 m tall. The preferred habitat of this species is cloud forest. Specimens of this species have been often misidentified as *Tournefortia acutiflora* Mart. & Galeotti. **Synonym:** *Tournefortia nelsonii* Donn.Sm.
Elevational range: (1,200) 1,500–2,000 (3,300) m
Assessor: JAM
Refs: [29, 76, 255]

Burseraceae

Protium copal (Schltdl. & Cham.) Engl. var. ***copal***
NT
Mexico (SLP, QRO, HGO, VER, PUE, GRO, OAX, TAB, CHS, CAM, QTR), Guatemala, Belize
Dioecious small to medium-sized tree, up to 20 (rarely 30) m tall.

This widespread taxon occasionally occurs in cloud forest, growing more frequently in lower elevation formations such as tropical rainforest, tropical evergreen forest, and less frequently in tropical dry forest. Its preferred habitat is primary forest. **Synonyms:** *Icica copal* Schltdl. & Cham., *I. palmeri* Rose, *Protium palmeri* (Rose) Engl. **Common names:** *aceitillo, copal, copal aceitillo, copalillo, jom, jomte, pom, zapotillo*. The resin of this tree has been traditionally used in religious ceremonies since pre-Hispanic times and presently it is one of the most commonly sold products for the festivities of the Day of the Dead (1 and 2 November), and is deeply rooted in Mexican tradition. The resin is also used for the production of varnish and lacquer, as well as medicinal ointments. The fruit is seldom eaten and not highly appreciated. The wood is used for multiple purposes including the construction of rural houses, as a source of firewood and for making poles, furniture and small boats.
Elevational range: 0–1,200 m
Assessor: JAM
Refs: [267, 285, 333, 339, 345]

Buxaceae

Buxus moctezumae Eg.Köhler, R.Fernández & Zamudio
CR B1ab(iii)
Mexico (QRO)
Shrub or small tree, up to 12 m tall. This extremely rare and narrowly endemic species is known from tropical semi-evergreen forest but it occasionally intrudes into adjacent cloud forest, mostly along ravines. Known from a single locality in Landa de Matamoros *municipio* (county).
Elevational range: 300–900 m
Assessors: GIM, JAM
Ref: [111]

Cannabaceae

Lozanella enantiophylla (Donn.Sm.) Killip & C.V.Morton
NT
Mexico (HGO, VER, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia
Dioecious shrub or small tree, up to 10 m tall. Mostly a cloud forest understorey species, this taxon also occurs in oak forest and tropical semi-evergreen forest. Global warming could potentially represent a significant threat to this taxon as the majority of its populations grow at high elevations, making an upwards elevational shift of its range unlikely to occur. **Synonyms:** *Lozanella trematoides* Greenm., *Trema enantiophylla* Donn.Sm.
Elevational range: (250) 1,100–3,000 (4,500) m
Assessor: JAM
Refs: [4, 29, 180, 259, 363, 402]

Celastraceae

Euonymus mexicanus Benth.
EN A2c; B1ab(iii)
Mexico (HGO, VER, GRO, OAX)
A shrub or small tree, up to 8 m tall. A cloud forest species, also found in oak forest. Its preferred habitats are protected ravines and slopes but it has also been found on dry slopes. Its habitat is severely fragmented and threatened with further deforestation. **Synonym:** *Euonymus hernandezii* Lundell.
Elevational range: 1,900–2,500 m
Assessors: MGE, NRM
Refs: [4, 217]

Quetzalia contracta (Lundell) Lundell
EN B2ab(iii,iv,v); C2ab(i)
Mexico (OAX, CHS), Guatemala
A small tree, to 7–10 m tall and trunk up to 30 cm in diameter. Found in old-growth, high elevation cloud forests, it is likely to be susceptible to climatic change and habitat loss due to deforestation. Known only from the Sierra de los Cuchumatanes (Guatemala), the Ixtlán region (Oaxaca), and a few localities in the Central Highlands of Chiapas. The orange aril must be removed and the seeds washed with cold water to induce germination (c. 60%). Seeds do not remain viable after seven months. **Synonym:** *Microtropis contracta* Lundell. **Common name:** *mes te'ka'*. It is used as a source of fuelwood and for producing charcoal.
Elevational range: 2,500–2,800 m
Assessors: NRM, MGE
Refs: [124, 135, 177, 214, 309]

Quetzalia guatemalensis (Sprague) Lundell
EN B2ab(iii,iv,v); C2ab(i)
Mexico (OAX, CHS), Guatemala
A small tree in old-growth high elevation cloud forests. Likely to be susceptible to climatic change and habitat loss due to deforestation. In Mexico known only from a few localities in Oaxaca and the Central Highlands of Chiapas. **Synonym:** *Microtropis guatemalensis* Sprague.
Elevational range: 1,200–2,760 m
Assessors: NRM, MGE
Ref: [214]

Quetzalia occidentalis (Loes. ex Donn.Sm.) Lundell
VU B2ab(iii); C2ab(i)
Mexico (OAX), Guatemala, Costa Rica, Panama
A small cloud forest tree species with a restricted distribution in Mexico (Ixtlán region, northern Oaxaca) but more widespread in Costa Rica and Panama. **Synonym:** *Microtropis occidentalis* (Loes. ex Donn.Sm.) Lundell.
Elevational range: 750–2,700 m
Assessors: NRM, MGE
Refs: [214, 229, 279]

Quetzalia schiedeana (Loes.) Lundell
VU B2ab(iii); C2ab(i)
Mexico (HGO, VER, PUE, OAX)
A small cloud forest tree species. A Mexican endemic taxon (type locality is Chiconquiaco, Veracruz). **Synonym:** *Microtropis schiedeana* Loes.
Elevational range: c. 2,000 m
Assessors: NRM, MGE
Refs: [4, 209, 214, 229]

Quetzalia stipitata (Lundell) Lundell
EN A2c; B1ab(iii)
Mexico (HGO, VER, PUE)
An arborescent shrub or small tree, up to 6 m tall and trunk up to 4 cm in diameter. Although this taxon can be found in old-growth cloud forest, it is more frequently found in humid pine-oak forest. Its preferred habitats are protected ravines and slopes with deep and well-drained soils. Sometimes abundant. Its habitat is severely threatened by extensive, ongoing deforestation.
Elevational range: 1,700– 2,200 m
Assessors: NRM, MGE
Ref: [126]

Wimmeria chiapensis Lundell
CR B2ab(iii); C2a(i)
Mexico (CHS)
A small tree species only known from a few localities in cloud forest or pine-oak forest where severe habitat loss has recently taken place.
Elevational range: 700–1,930 m
Assessors: NRM, MGE
Ref: [214]

Wimmeria concolor Schltdl. & Cham.
NT
Mexico (TAM, SLP, QRO, HGO, VER, PUE, OAX, CHS), Guatemala, Honduras, Nicaragua
An evergreen erect shrub or small to medium-sized tree, 15 (30) m tall and trunk up to 40 cm in diameter. This widely distributed species grows in a variety of plant formations including cloud forest, pine-oak forest, pine forest, tropical dry forest, and tropical rainforest. Hill slopes and ravines are its preferred habitats, particularly in old-growth stands, but sometimes it is also found in shady secondary vegetation or close to shade-grown coffee plantations; this tree is abundant in a few places. Its habitat in relatively mature forests has been severely reduced and it is threatened by further deforestation. **Synonym:** *Wimmeria discolor* Schltdl. & Cham. **Common names:** *algodoncillo, clashiste, huesillo, palo verde.*
Elevational range: (0) 200–1,600 m
Assessors: NRM, MGE
Refs: [29, 58, 249]

Wimmeria montana Lundell
EN B2ab(ii,iii)
Mexico (CHS)
A small tree species of the cloud forest. The taxon is endemic to the central and northern Highlands of Chiapas.
Elevational range: 1,170–2,700 m
Assessors: NRM, MGE
Refs: [214, 363]

Wimmeria sternii Lundell
VU A2c; B1ab(iii)
Mexico (OAX, CHS), Nicaragua, Costa Rica, Panama
A small cloud forest tree, this species also occurs in other more seasonal forest formations. In Mexico it is known only from a few localities in Oaxaca and Chiapas where severe habitat loss has been recorded in recent decades.
Elevational range: 800–2,300 m
Assessors: NRM, MGE
Ref: [214]

Zinowiewia concinna Lundell
EN A1cd; B2ab(iii)
Mexico (JAL, VER, COL, MIC, MEX, MOR, GRO, OAX)
This typical cloud forest tree is quite variable in size, from relatively short individuals to trees over 30 m tall with very wide trunks. In addition to cloud forest this species is also present in other more seasonal forests. This species is endemic to Mexico, mostly in the southern part of the country, in cloud forests of the Sierra Madre del Sur. **Common names:** *gloria, palo blanco, tnu-yahá, tun-yaa*.
Elevational range: 1,800–2,450 m
Assessors: NRM, MGE
Refs: [2, 76, 79, 96, 115, 155, 207, 213, 214, 236, 277, 278, 348, 351, 356, 357, 429, 431, 438]

Zinowiewia matudae Lundell
CR A2cd; B1ab(iii,iv,v)
Mexico (CHS)
A small, typical cloud forest tree species. This taxon is a very narrow endemic with its geographical range restricted to Chiapas (mostly on the Sierra Madre de Chiapas but with a few records from the Northern Mountains region). Possibly only one population under protection at the El Triunfo Biosphere Reserve.
Elevational range: 900–2,540 m
Assessors: NRM, MGE
Ref: [214]

Zinowiewia rubra Lundell
EN B2ab(ii,iii)
Mexico (CHS), Guatemala.
A small or medium-sized tree,10–20 m tall and trunk 30–60 cm in diameter. A rare cloud forest species endemic to high elevation localities in Chiapas and Guatemala, rarely occurring in more seasonal formations at lower elevations as well. Small-

scale operations use the wood for making guitars as well as other small handicrafts and furniture.
Elevational range: 1,300–2,700 m
Assessors: NRM, MGE
Refs: [214, 309]

Zinowiewia tacanensis Lundell
CR A2cd; B1ab(iii,iv,v)
Mexico (CHS), Guatemala
A small, typical cloud forest tree species, although it also occurs at a few localities with more seasonal forests in Chiapas. In Mexico it is an endemic taxon to Chiapas. *Elevational range:* 1,300–2,700 m
Assessors: NRM, MGE
Ref: [214]

Chrysobalanaceae

Couepia polyandra (Kunth) Rose
VU A4c
Mexico (NAY, JAL, VER, MIC, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized tree. This species is not exclusive to cloud forest and it is more typical of the moist and dry tropical forests of the lowlands. Regardless of the climatic zone, this tree is clearly a primary forest specialist. **Synonyms:** *Couepia dodecandra* (Moc. & Sessé ex DC.) Hemsl., *C. floccosa* Fritsch, *C. kunthiana* Benth. ex. Hemsl., *Hirtella dodecandra* Moc. & Sessé ex DC., *H. polyandra* Kunth. **Common names:** *carnero, fraile, frailecillo, guayabillo de tinta, guayo, olozapote, palo fraile, zapote amarillo*. This timber tree is used to provide shade for cattle in pastures. The fruit is edible.
Elevational range: 0–1,750 m
Assessor: JAM
Refs: [100, 173, 279]

Clethraceae

Clethra chiapensis L.M.González
EN B2ab(ii,iii)
Mexico (CHS)
Medium-sized tree, usually up to 15 m, rarely 20 m tall. A recently described species endemic to the Central Highlands of Chiapas. This species is frequently found in high-elevation cloud forests with *Abies*, although it is also present in moist pine-oak-*Liquidambar* forest; sometimes in riparian habitats. Extensive deforestation has taken place throughout its geographic range. **Common name:** *kajkej'te*.
Elevational range: (1,500) 2,100–2,700 m
Assessors: LMG, SVA, JAM
Refs: [141, 309, 434]

Clethra conzattiana L.M.González
EN B2ab(iii)
Mexico (OAX)
Shrub or medium-sized tree, up to 20 m tall. This species is a typical cloud forest element but it is also found in pine-oak and pine forest. The taxon is narrowly endemic to northern Oaxaca. Deforestation is severe in many parts of its range but other areas show an excellent degree of conservation. **Common names:** *jaboncillo, palo colorado*.
Elevational range: 1,700–2,500 m
Assessors: LMG, SVA, JAM
Refs: [141, 237, 431]

Clethra luzmariae L.M.González
EN A3c
Mexico (OAX)
Shrub usually spreading by horizontal underground rhizomes; thicket-forming shrubs reaching 2 m tall, or less frequently a small tree up to 10 m tall. An endemic species to northern Oaxaca where it is fairly abundant. It is found in moist pine-oak forest, dense ericaceous scrub, oak forest and cloud forest. Its main threat is climate change because of its narrow and high elevational range.
Elevational range: 2,400–3,100 m
Assessors: LMG, SVA, JAM
Ref: [139, 141]

Clethra oleoides L.O.Williams
VU B2ab(iii)
Mexico (CHS), Guatemala, Honduras
Small to medium-sized evergreen tree, up to 20 m tall. In Mexico it has a disjunct distribution in disturbed cloud forests areas. Extensive deforestation has taken place throughout its geographical range, particularly in Chiapas. **Common names:** *k'ajk' etez, shiorsh, tzotzniztez*.
Elevational range: 2,600–3,300 m
Assessors: SVA, JAM
Refs: [139, 148, 279, 434]

Clethra pachecoana Standl. & Steyerm.
VU B2ab(iii)
Mexico (CHS), Guatemala, El Salvador
Medium-sized to large tree, up to 30 m tall. In Mexico this species is only known from the southernmost state where it grows on steep slopes covered with cloud forest, particularly on volcanic soils. Trees of this taxon can also be found in pine-oak forest and *Abies* forest. Material from Chiapas shows morphological differences from Central American specimens, which could lead to its recognition as a separate taxon in the future. **Common names:** *escobo, sapotilla, zapotillo*.
Elevational range: (1,600) 2,000–3,800 m
Assessors: SVA, JAM
Refs: [139, 148, 279, 434]

Clethra purpusii L.M.González
EN B1ab(iii)
Mexico (CHS, OAX[?])
Small to medium-sized tree, up to 15 m tall. A very narrow endemic, this species is only known from its type locality, namely Cerro Baúl, on the Chiapas-Oaxaca border (no records from Oaxaca are available as yet). Its main habitat is montane rainforest (a low-elevation kind of cloud forest *sensu lato*), as well as pine-oak-*Liquidambar* forest.
Elevational range: (1,000) 1,300–1,600 m
Assessors: LMG, JAM
Ref: [148]

Clethra vicentina Standl.
VU A4c
Mexico (CHS), Guatemala, El Salvador, Honduras, Nicaragua
Medium to large tree, up to 20 m tall. This species has a strong preference for cloud forest. **Synonyms:** *Clethra johnstonii* Standl & Steyerm., *C. molinae* Standl. & L.O.Williams. **Common names:** *garrapatillo, marquezotillo, palo de agua*.
Elevational range: (800) 1,200–2,600 m
Assessors: LMG, JAM
Refs: [79, 139, 148, 277, 348, 356, 434]

Clusiaceae

Clusia guatemalensis Hemsl.
EN B1ab(iii)
Mexico (VER, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua
A terrestrial or more often an epiphytic tree from cloud forest that also occurs in other forest formations at elevations lower than 1,500 m. **Synonym:** *Clusia mexicana* Vesque. **Common name:** *zapatillo*.
Elevational range: 180–2,000 m
Assessors: LSV, RPG, MGE
Refs: [130, 156, 209, 220, 279, 438]

Clusia lusoria Standl. & Steyerm.
CR B1ab(ii,iii)
Mexico (VER, OAX, CHS), Guatemala, El Salvador, Honduras
Tree, up to 18 m tall. This species is found in cloud forest but also occurs in forest formations of lower elevations; restricted distribution. It has been categorized in Guatemala as a tree species threatened with extinction.
Elevational range: 700–2,100 m
Assessor: MGE
Ref: [279]

Cornaceae

Cornus disciflora DC.
VU B1ab(iii)
Mexico (SON, CHI, NL, TAM, SIN, DGO, ZAC, SLP, NAY, JAL, GTO, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama
A widespread understorey or mid-canopy tree species up to 23 m tall and trunk up to 50 cm in diameter. This species is found in old-growth and mid-successional cloud forest, but also in oak and pine-oak forest. Large adult individuals (trunk diameter > 30 cm) are becoming increasingly rare. Populations can be restored from seeds under a shallow layer of litter or planting seedlings produced in nurseries. Germination is high (80–100%) and seed viability remains for one year under cold temperatures. **Synonyms:** *Benthamia disciflora* (DC.) Nakai, *Cornus capitata* Sessé & Moc., *C. disciflora* var. *floccosa* (Wangerin) Standl., *C. disciflora* fo. *floccosa* (Wangerin) Rickett. **Common names:** *abiodo, aceitunillo, aceituno, asintla, canelo, guardalagua, isimac, limoncillo, mimbre pasilla, mimbre prieto, palo canelo, palo verde, pasilla blanca, pasilla blanco, pasilla negra, sacbayan té, sají, variador*. Wood is used for handicrafts and the foliage is used as forage.The dry bark of the root is used in traditional medicine as a tonic and as astringent.
Elevational range: (500) 1,000–2,930 m
Assessors: NRM, MGE
Refs: [2, 4, 43, 47, 58, 70, 71, 76, 79, 96, 115, 124, 134–137, 140, 161, 166, 180, 207, 229, 236, 238, 239, 241, 277–279, 295, 300–302, 309, 348, 356, 357, 365, 428, 429, 438, 445]

Cornus florida L. var. ***urbiniana*** (Rose) Wangerin
VU B1ab(ii,iii)
Mexico (NL, TAM, VER)
A small tree with a restricted distribution in cloud forests of the north-eastern part of Mexico. **Synonyms:** *Cornus florida* subsp. *urbiniana* (Rose) Rickett, *C. urbiniana* Rose. **Common names:** *corona de moctezuma, corona de san pedro*.
Elevational range: 1,735–2,345 m
Assessors: NRM, MGE
Refs: [209, 365]

Cunoniaceae

Weinmannia intermedia Schltdl. & Cham.
EN A4c; B1ab(iii)
Mexico (HGO, VER, MEX, PUE, OAX), Honduras
Shrub or medium-sized tree, up to 15 m tall. A typical cloud forest species, it may also be found in oak forest and pine-oak forest. There is a possibility that this taxon is endemic to Mexico as there is only a single report from another country. **Synonym:** *Weinmannia liebmannii* Engl.
Elevational range: (1,300) 1,750–2,500 m
Assessors: JAM, SVA
Ref: [257]

Weinmannia pinnata L.
NT
Mexico (TAM, HGO, VER, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, French Guiana, Ecuador, Peru, Bolivia, Brazil, Jamaica, Cuba, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Tree very variable in size, up to 30 m tall and trunk up to 40 cm in diameter. This widely distributed species has received many names. It is mainly a cloud forest species but it occasionally grows in other forest types. This tree is usually a scarce forest component. In Mexico its original habitat has been severely deforested and could be classified as vulnerable on a national level. **Synonyms:** *Weinmannia glabra* L.f., *W. hirta* Sw. **Common names:** *achit, cempoalchal, cempoalchial, garrapatito, tzitzim, yo-vela*.
Elevational range: (650) 900–3,500 (4,000) m
Assessors: JAM, SVA
Refs: [126, 135, 137, 225, 257, 279, 309, 347, 431, 452]

Weinmannia tuerckheimi Engl.
EN A4c
Mexico (OAX), Guatemala, El Salvador, Honduras
Large shrub or small to medium-sized tree, up to 15 m tall. This species is a cloud forest specialist and it has a highly restricted known distribution in Mexico, as it only occurs in the La Chinantla region of northern Oaxaca, where it is scarce.
Elevational range: 1,450–2,580 (3,000) m
Assessors: JAM, SVA
Refs: [237, 431]

Cyrillaceae

Cyrilla racemiflora L.
NT
United States, Mexico (OAX), Guatemala, Belize, Honduras, Nicaragua, Panama, Colombia, Venezuela, Guyana, Brazil, Jamaica, Cuba, Dominican Republic, Puerto Rico, Lesser Antilles
A cloud forest species only known in Mexico from one small isolated population near the Oaxacan locality of Santa Cruz Tepetotutla, in the hyper-humid region of La Chinantla, where mean annual precipitation is >5,500 mm. The species also grows to be a large tree in the cloud forest of Puerto Rico but it is always a much smaller plant in savanna habitats of Central and South America and the United States. The conservation status and the risk level of this taxon could change towards a more critical category if the cloud forest populations were segregated as a separate taxon. **Synonyms:** *Andromeda plumata* W.Bartram ex Marshall, *Cyrilla antillana* Michx. *C. arida* Small, *C. brevifolia* N.E.Br., *C. cubensis* P.Wilson, *C. parvifolia* Raf., *Itea cyrilla* L'Hér.
Elevational range: 1,600–1,700 m in cloud forests, 0–2,800 m overall
Assessor: JAM
Refs: [125, 237, 279]

Ebenaceae

Diospyros conzattii Standl.
VU A4c
Mexico (VER, OAX), Costa Rica
Shrub or small tree, up to 10 m tall. This common cloud forest taxon also occurs frequently in tropical dry forest, pine-oak forest and oak forest. **Synonym:** *Diospyros pergamentacea* Lundell. **Common names:** *zapote negro montés, zapote negro silvestre, zapotillo.* In addition to its edible, very tasty fruit, the wood is also highly valued.
Elevational range: 900–2,200 m
Assessor: JAM
Refs: [298, 443]

Diospyros digyna Jacq.
NT
Mexico (PUE, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador
Medium-sized to large tree, up to 35 m tall. Mostly occurring in humid lowland forests, and even in riparian habitats of tropical dry forest, this species has a marginal presence in cloud forest. In fact, in Mexico cloud forest records are from the Central Plateau of Chiapas only (above 1,500 m), where severe deforestation has been observed in recent decades. **Synonyms:** *Diospyros obtusifolia* Humb. & Bonpl. ex Willd., *D. sapota* Roxb. **Common names:** *biaahui, biaqui, bom-rza, bonza, cuputishi, ébano, hunchuikle, inu, jünchúikl, malisuuruata, ma-ta-mui, múnec, muneque, pillahui, sáual, sirunda-urata, ta-toho, tauch, tauch-yá, tauché, tilzápot, tlilzápotl, totocuitlzápotl, tzapultiltic, tsupilul, xency, zapote negro, zapote prieto, xindé*. The fruits of this tree are edible and produced at both a subsistence and local commercial level, which is why the species is widely cultivated. The wood is of excellent quality and it is used for manufacturing a variety of objects including golf clubs, umbrella handles, walking sticks, piano keys, fine furniture and musical instruments.
Elevational range: 0–1,930 m
Assessors: JAM, Expert Group May 2007
Refs: [76, 173, 225, 267, 275, 443]

Diospyros gomeziorum Provance & A.C.Sanders
EN A4c
Mexico (TAM, SLP, QRO, HGO)
Large shrub or medium-sized tree, up to 20 m tall, facultatively deciduous. The range of this Mexican endemic taxon is restricted to the Sierra Madre Oriental. A non-rare cloud forest element, this species has also been collected in pine-oak forest, oak forest and even in xerophytic scrub. This taxon has been frequently confused with *Diospyros riojae* Gómez Pompa. **Common names:** *zapote de monte, zapote prieto, zapotillo*.
Elevational range: 900–2,200 m
Assessor: JAM
Refs: [52, 298]

Diospyros riojae Gómez Pompa
CR A3c
Mexico (TAM, HGO, QRO, VER)
Small to medium-sized tree, up to 20 m tall. A scarce, old-growth cloud forest tree species, it is also present in pine-oak forest and tropical semi-evergreen forest. Native habitats across its geographical range are being lost rapidly.
Elevational range: 740–1,900 m
Assessors: ILV, JAM
Refs: [52, 137, 229, 275, 300, 301]

Diospyros tuxtlensis Provance & A.C.Sanders
EN A4c
Mexico (VER)
Small tree, up to 10 m tall. The geographical distribution of this species is restricted to the Sierra de Los Tuxtlas in southern Veracruz, where it grows abundantly in cloud forest (low evergreen or dwarf forest), as well as in tropical rainforest.
Elevational range: 920–1,000 m
Assessor: JAM
Ref: [298]

ERICACEAE

Agarista mexicana (Hemsl.) Judd
NT
Mexico (NAY, JAL, VER, MEX, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua
Shrub, 1–3 m, or tree, 3–15 m tall. Frequently occurs in oak forest, pine-oak forest and cloud forest, sometimes in secondary vegetation (pastures). There are two varieties of the species present in Mexico, namely *A. mexicana* var. *mexicana*, and *A. mexicana* var. *pinetorum* (Standl. & L.O.Williams) Judd but as they thrive in the same vegetation types we have gathered the information for both under the species name. **Synonyms:** *Andromeda mexicana* Hemsl., *Leucothoe mexicana* (Hemsl.) Small, *L. pinetorum* Standl. & L.O.Williams. **Common names:** *nacahuite, pellejo de lagarto.*
Elevational range: 600–2,150 m
Assessors: FLH, GIM
Refs: [138, 183]

Comarostaphylis arbutoides Lindl. subsp. ***arbutoides***
VU B1ab(ii)
Mexico (CHS), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
Small tree, 1–4 m tall., but in Costa Rica up to 20 m tall. This taxon occurs both in cloud forest and in oak forest.
Elevational range: 1,350–3,400 m
Assessors: FLH, GIM, GCT
Ref: [97]

Comarostaphylis longifolia (Benth.) Klotzsch
EN B1ab(iii)
Mexico (JAL, MIC, MEX, GRO)
Shrub or small tree, 1–5 m tall. This species occurs in cloud forest, oak forest, pine-oak forest, or fir forest. **Synonym:** *Arctostaphylos longifolia* Benth.
Elevational range: 1,700–3,300 m
Assessors: FLH, GIM, GCT
Refs: [70, 76, 96, 97, 138]

Lyonia squamulosa M.Martens & Galeotti
NT
Mexico (NL, SLP, HGO, VER, PUE, OAX, CHS), Honduras
Usually a shrub, 1–3 m tall, but also sometimes a small tree, 3–5 m tall. This species is present in but not restricted to cloud forest as it occurs in other drier mountain forest types such as pine forest or oak forest. Almost restricted to Mexico in distribution (one doubtful specimen from Honduras). **Synonym:** *Xolisma squamulosa* (M.Martens & Galeotti) Small.
Elevational range: (200) 800–2,400 m
Assessors: FLH, JAM
Refs: [4, 213, 229, 295]

Vaccinium consanguineum Klotzsch
NT
Mexico (OAX), Honduras, Costa Rica, Panama
Small to medium-sized tree, 3–11 m tall. This species is restricted to cloud forest. In Mexico it is only known from the very humid region of La Chinantla in northern Oaxaca, where it is rare. We suspect that the specimens recorded from Mexico might be misidentified as the type of disjunct distribution shown is rare, albeit not unique (*V. consanguineum* is a Central American species, found mainly in Costa Rica and Panama).
Elevational range: 1,800–2,800 m
Assessors: FLH, JAM
Refs: [237, 431]

Vaccinium leucanthum Schltdl.
EN A4c
Mexico (QRO, HGO, VER, MIC, PUE, OAX, CHS), Guatemala, Honduras
Mostly a shrub, 1–4 m, or a small to medium-sized tree, 4–12 m tall. This species occurs primarily in cloud forest but also in other tropical mountain forests, such as pine forest or oak forest. **Common names:** *coscolín, axocopaconi, cahuichi, cahuitzi*.
Elevational range: 1,700–2,850 m
Assessors: FLH, JAM
Refs: [4, 58, 76, 126, 229, 295]

Vaccinium stenophyllum Steud.
EN B1ab(iii)
Mexico (SIN, NAY, JAL, GRO)
Shrub or small tree,1–6 m tall. This species is typical of montane cloud forest and pine-oak forest.
Elevational range: 1,900–2,200 m
Assessors: FLH, GIM
Refs: [79, 82, 138, 207, 335, 429]

EUPHORBIACEAE

Bernardia dodecandra (Sessé ex Cav.) McVaugh
VU B1ab(iii,iv)+2ab(iii,iv)
Mexico (TAM, SLP, QRO, HGO, VER, PUE, GRO, OAX, TAB, CHS, CAM), Guatemala, Belize
A small tree, up to 10 m tall and with a trunk up to 20 cm in diameter. Not restricted to cloud forest, this species also occurs in tropical rainforest, tropical dry forest, oak forest and pine-oak forest. It has a large range in Mexico. **Synonyms:** *Acalypha interrupta* Schltdl., *Adelia dodecandra* Sessé ex Cav., *Alevia leptostachya* Baill., *Bernardia aurantiaca* Lundell, *B. interrupta* (Schltdl.) Müll.Arg.
Elevational range: 15–1,800 m
Assessors: ILV, MMG, MGE
Refs: [58, 63, 126, 137, 224, 279, 301, 363, 438]

Bernardia fonsecae A.Cerv. & J.Jiménez Ram.
VU B2ab(iii)
Mexico (GRO)
This species is a cloud forest specialist with a very narrow geographic distribution.
Elevational range: 2,200–2,500 m.
Assessor: MMG
Ref: [224]

Bernardia macrocarpa A.Cerv. & Flores-Olvera
VU B2ab(iii)
Mexico (VER, PUE)
A small or medium-sized dioecious tree species, 5–15 m tall. Restricted to cloud forest within a small area of eastern Mexico (Misantla and Hueytamalco areas). Only six specimens known, including type. It has been mistaken for *Bernardia dodecandra* (Sessé ex. Cav) McVaugh.
Elevational range: 1,350–1,800 m
Assessors: GIM, MGE
Refs: [64, 224]

Bernardia mollis Lundell
EN A3c; B1ab(iii)
Mexico (CHS), Guatemala
A small or medium-sized tree species (sometimes referred to as a shrub) up to 15 m tall and trunk up to 25 cm in diameter. A strict cloud forest specialist, this species is only known from the slopes of the Tacaná Volcano in Chiapas and Guatemala where its habitat is rapidly dissapearing. Listed as *Amenazada* (Threatened) in the *Norma Oficial Mexicana* (Mexican Official Norm).
Elevational range: 1,550–2,430 m
Assessors: ILV, MMG
Refs: [4, 224, 279]

Bernardia oblanceolata Lundell
EN A3c; B1ab(iii)
Mexico (OAX, CHS), Guatemala
A small tree up to 6 m tall and trunk with 20 cm in diameter. This species is not restricted to cloud forest as it also occurs in oak forest and pine-oak forest.
Elevational range: 1,500–2,300 m
Assessors: ILV, MMG
Refs: [224, 279]

Croton rosarianus Mart.Gord. & Cruz Durán
EN A4c; C1
Mexico (PUE)
This species is known from only one specimen collected at Cuetzalan (PUE), in the Sierra Madre Oriental, where it was found growing in a small thicket located within an area of shade-grown coffee plantations.
Elevational range: 1,000 m
Assessors: MMG, MGE
Refs: [224, 441]

Croton stenopetalus G.L.Webster
VU B2ab(iii,iv)
Mexico (JAL)
This species is only known from Sierra de Manatlán, Jalisco.
Elevational range: 2,000–2,200 m
Assessor: MMG
Refs: [224, 441]

Gymnanthes longipes Müll.Arg.
VU A2c; B2ab(iii)
Mexico (NL, TAM, SLP, JAL, GTO, QRO, VER, PUE, OAX)
A small tree up to 15 m tall and trunk to more than 20 cm in diameter; frequently reported as a shrub. This species occurs in cloud forest, in protected ravines or riparian habitats. The species also occurs in oak and pine-oak forest. **Synonyms:** *Ateramnus longipes* (Müll.Arg.) Rothm., *Sebastiania longipes* Müll.Arg.
Elevational range: (750) 900–1,500 m
Assessors: MGE, NRM
Refs: [58, 224]

Gymnanthes riparia (Schltdl.) Klotzsch
VU A2c; B2ab(iii)
Mexico (TAM, SLP, VER, PUE, OAX, CHS), El Salvador, Honduras, Nicaragua, Costa Rica, Panama
A small or medium-sized tree, up to 20 m tall. Sometimes reported as a shrub when growing in secondary vegetation. A typical cloud forest species, frequently found on slopes and in deep ravines or shaded canyons. The species is also present in seasonal tropical evergreen forest at lower elevations and in oak forest and pine-oak forest. **Synonyms:** *Excoecaria riparia* Schltdl., *Gymnanthes guatemalensis* Standl. & Steyerm., *G. schlechtendaliana* Müll.Arg., *Sebastiania schlechtendaliana* (Müll.Arg.) Müll.Arg. Its wood is used for making tool handles and fence posts.
Elevational range: 900–1,770 m
Assessors: MGE, NRM
Refs: [58, 224, 229, 351]

Sebastiania hintonii Lundell
VU A2c; B2ab(iii)
Mexico (JAL, MOR, GRO)
A small tree, up to 10 m tall and trunk up to 15 cm in diameter. Although present in cloud forest, this species also grows in more seasonal formations at lower elevations and in pine forest. It has been recorded as abundant in gorges.
Elevational range: 1,700– 2,000 m
Assessors: MGE, NRM
Refs: [224, 277, 278, 427]

Fabaceae

Abarema zolleriana (Standl. & Steyerm.) Barneby & J.W.Grimes
EN B1ab(iii)
Mexico (OAX, CHS)
Very large tree, up to 40 m tall. This species occurs in cloud forest, pine forest and pine-oak forest. **Synonym:** *Pithecellobium zollerianum* Standl. & Steyerm.
Elevational range: 950–1,400 m
Assessors: GIM, FLH, GCT
Ref: [375]

Ateleia pterocarpa Moc. & Sessé ex D.Dietr.
NT
Mexico (NAY, JAL, VER, OAX, CHS), Guatemala, Belize, Nicaragua, Costa Rica
Small to medium-sized tree, 6–20 m tall. The preferred habitat of this species is tropical rainforest and it is rare in oak forest and cloud forest. It can be found in riparian habitats. **Synonym:** *Pterocarpus ateleia* DC. **Common names:** *gorgojo, jediondillo, siete pellejos, tzaate, zaaté*.
Elevational range: 10–1,250 m
Assessors: GIM, FLH, GCT
Refs: [232, 442]

Bauhinia chapulhuacania Wunderlin
EN B1ab(iii)
Mexico (SLP, QRO, HGO, PUE)
Small tree, 6–8 m tall. This species typically occurs in moist forests, such as cloud forest and tropical rainforest but it also grows infrequently in oak forest. **Synonym:** *Bauhinia dipetala* Hemsl. var. *macrophylla* Wunderlin. The cooked flowers are edible.
Elevational range: 700–1,700 m
Assessors: GIM, FLH, GCT
Refs: [4, 58, 340, 447]

Bauhinia dipetala Hemsl.
VU B1ab(iii)
Mexico (HGO, VER, MOR, PUE, OAX, CHS), Belize
Small tree, up to 6 m tall. In addition to cloud forest, this species is also present in tropical rainforest and tropical semi-evergreen forest, and it has also been collected in secondary vegetation. Naturalized in Cuba. This species is closely related to *B. ramosissima* Benth. ex Hemsl. **Synonym:** *Bauhinia unilateralis* Britten & Baker f.
Elevational range: 200–1,000 m
Assessors: GIM, FLH, GCT
Refs: [4, 279, 447]

Bauhinia macranthera Benth. ex Hemsl.
VU B1ab(iii)
Mexico (COA, NL, TAM, SLP, HGO, VER)
Shrub or small tree, 4–7 m tall. The presence of this species in cloud forest is marginal, it also occurs in tropical semi-evergreen forest but is particularly abundant in oak forest. **Synonyms:** *Bauhinia retifolia* Standl., *Casparia lunarioides* A.Gray ex Britt. & Rose. **Common name:** *pata de cabra*.
Elevational range: (300) 1,000–2,500 m
Assessors: GIM, FLH, GCT
Refs: [340, 447]

Cercis canadensis L.
NT
United States, Mexico (COA, NL, TAM, SLP, QRO, HGO, PUE, VER)
Shrub or small tree 3–10 (15) m tall. Usually present in ravines and in riparian habitats both in cloud forest and pine-oak forest. **Synonyms:** *Cercis mexicana* Rose, *C. canadensis* L. var. *mexicana* (Rose) Hopkins. **Common names:** *cuaresma, palo de judas, palo de rosa, pata de vaca*. Timber and ornamental tree, used in traditional folk medicine. Flowers are edible and it is considered an excellent source of pollen and nectar for honeybees.
Elevational range: 1,000–2,250 m
Assessors: GIM, GCT
Refs: [4, 58, 229, 300, 340]

Cojoba arborea (L.) Britton & Rose
NT
Mexico (TAM, SLP, JAL, QRO, HGO, VER, MOR, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Cuba, Jamaica, Dominican Republic, Puerto Rico
Medium-sized to very large tree, 12–30 (50) m tall. A marginal component of the cloud forest, this species more typically occurs in tropical rainforest and tropical semi-evergreen forest, particularly in riparian habitats. **Synonyms:** *Mimosa arborea* L., *Acacia arborea* (L.) Willd., *Pithecellobium arboreum* (L.) Urb. **Common names:** *aguacillo, aromillo, barba de jolote, camaronero, cañamazo, coralillo, frijolillo, guacamayo, guacastillo, itil, ecuahuitl, papalote, sombra fresca, stapunquivi, tamarindillo*. Timber and ornamental tree; the wood is also used for making handicrafts. Flowers are a good source of pollen and nectar for honeybees. Planted as a shade tree in coffee plantations.
Elevational range: 100–2,100 m
Assessors: GIM, GCT
Refs: [126, 174, 209, 267, 268, 279, 285, 322, 323, 425]

Cojoba escuintlensis (Lundell) L.Rico
EN B1ab(iii)
Mexico (OAX, TAB, CHS)
Shrub or small tree, 2.5–10 m tall. Occasionally occurs in cloud forest and pine-oak forest, this taxon is more abundant in tropical rainforest. This species is related to *Cojoba recordii* Britton & Rose. **Synonym:** *Pithecellobium escuintlense* Lundell.
Elevational range: 1,250–1,600 (2,200) m
Assessors: GIM, FLH, GCT
Ref: [324]

Cojoba mariaelenae L.Rico
CR B1ab(iii)
Mexico (OAX)
Small tree, up to 8 m tall. This species is mainly known from the cloud forest/pine-oak forest ecotone within an extremely narrow elevational belt.
Elevational range: c. 1,300 m
Assessors: GIM, FLH, GCT
Refs: [324, 375]

Cojoba matudae (Lundell) L.Rico
VU B1ab(iii)
Mexico (GRO, CHS)
Small tree, up to 10 m tall. Having a very wide elevational range, the habitat of this species includes both cloud forest and tropical rainforest. **Synonym:** *Pithecellobium matudae* Lundell.
Elevational range: 120–2,200 m
Assessors: GIM, FLH, GCT
Refs: [115, 324, 363]

Dalbergia palo-escrito Rzed. & Guridi-Gómez
CR A2; B1ab(iii)
Mexico (SLP, QRO, HGO, OAX)
Large tree, up to 35 m tall. A typical cloud forest element, the species can be occasionally found in pine forest. **Common names:** *escrito, palo escrito, tlacuilo, tlajilocuáhuitl, tzipil, tzipilín*. This species has an excellent wood for the manufacturing of guitars and general joinery work. Wood of this species is more appreciated locally than that of red cedar (*Cedrela odorata* L., Meliaceae).
Elevational range: 900–1,900 m
Assessors: GIM, FLH, GCT
Refs: [58, 295, 346, 374]

Dalea leucostachya A.Gray var. ***eysenhardtioides*** (Hemsl.) Barneby
VU B1ab(iii)
Mexico (CHI, NAY, JAL, COL, MIC, MEX, GRO, OAX, CHS)
Bushy shrub or small tree, 1–6 m tall. This taxon occurs only occasionally in cloud forest, as it is more characteristic of oak forest, pine-oak forest and fir (*Abies*) forest, with a strong habitat preference for humid ravines. **Synonym:** *Dalea eysenhardtioides* Hemsl.
Elevational range: (600) 1,000–2,500 m
Assessors: GIM, GCT
Refs: [76, 232, 277]

Diphysa floribunda Peyr.
NT
Mexico (JAL, VER, MIC, MEX, MOR, OAX, CHS), Guatemala, El Salvador, Nicaragua
Large shrub or small tree, 5–12 m tall. This species is not restricted to cloud forest as it also occurs in several other vegetation types at lower elevations.
Elevational range: 700–2,000 m
Assessors: GIM, FLH, GCT
Refs: [232, 279, 351, 368]

Inga acrocephala Steud.
NT
Mexico (VER, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Suriname, French Guiana, Ecuador, Brazil
Small to medium-sized tree, 8–20 m tall. This taxon occurs both in cloud forest and in tropical evergreen forest. The species is closely related and easily mistaken for *I. acreana* Harms. **Synonym:** *Inga brevipedicellata* Harms. **Common names:** *chalahuite, vaina*. This plant is used as as shade tree in coffee plantations. The sarcotesta (the sweet pulp surrounding the seed) is edible.
Elevational range: 0–1,400 m
Assessors: GIM, FLH, GCT
Refs: [174, 282, 333, 369, 371]

Inga cabrerae M.Sousa
CR A2; B1ab(iii)
Mexico (CHS), Guatemala
Treelet or small tree, 2–6 m tall. A cloud forest element, this species extends into adjacent tropical rainforest stands. The species is a close relative of *Inga dasycarpa* M.Sousa, *I. tenella* M.Sousa, and *I. villosissima* Benth., and it is often confused with these taxa.
Elevational range: 1,600–2,000 m
Assessors: GIM, FLH, GCT
Refs: [282, 369]

Inga calderonii Standl.
CR B1ab(iii)
Mexico (CHS), Guatemala, El Salvador
Medium-sized tree, 7–15 m tall. In addition to cloud forest, this species also occurs in pine forest and tropical semi-evergreen forest, often in riparian habitats. This species is related to *Inga vera* Willd. **Common names:** *pepeto, pepeto de mico, zapato de mico*. This tree is frequently used as a shade tree in El Salvador.
Elevational range: 600–1,600 m
Assessors: GIM, FLH, GCT
Ref: [282]

Inga colimana Padilla, Cuevas & Solís
CR B1ab(iii)
Mexico (COL)
Medium-sized evergreen tree, 7–15 m tall and trunk up to 35 cm in diameter; sometimes with basal branches. A cloud forest species with a very narrow distribution. This species is a close relative of, and often confused with, *Inga jinicuil* Schltdl., *I. paterno* Harms and *I. cinnamomea* Spruce ex Benth. **Common name:** *cuil*. The foliage is eaten by wild mammals such as deer and peccaries.
Elevational range: 1,500–1,800 m
Assessors: GIM, FLH, GCT, MGE
Refs: [276, 278]

Inga dasycarpa M.Sousa
CR B1ab(iii)
Mexico (CHS), Guatemala, Honduras
Medium-sized tree, 4–15 m tall. Not exclusive to cloud forest, this species is also found in pine-oak forest. **Common name:** *sakil kok*.
Elevational range: 1,300–2,000 m
Assessors: GIM, FLH, GCT
Refs: [282, 369]

Inga flexuosa Schltdl.
CR A2c
Mexico (VER, GRO, OAX, CHS)
Small to medium-sized tree, 6–20 m tall. A cloud forest taxon, this tree is also present in pine forest and oak forest. Closely related to *Inga micheliana* Harms., the two species are difficult to distinguish and hence easily confused. **Synonyms:** *Inga pringlei* Harms, *I. schiediana* Steud.
Elevational range: (765) 1,200–2,250 m
Assessors: GIM, FLH, GCT
Refs: [126, 207, 277, 282, 357, 369]

Inga hintonii Sandwith
EN B1ab(iii)
Mexico (DGO, NAY, JAL, MIC, MEX)
Shrub or small to medium-sized tree, 1.5–12 (20) m tall and trunk up to 50 cm in diameter. This cloud forest species also occurs in pine-oak forest and tropical semi-evergreen forest, frequently in riparian habitats. Once considered a synonym of *Inga micheliana* Harms [282], the good standing of this species was recently clarified based on calyx and floral bract morphology, and on the number of leaflets [372]. This species is related to *I. flexuosa* Schltdl. but it can be differentiated from it based on its winged rhachis, campanulate calyx and flower bud shape [372]. **Common names:** *cuajinicuil hoja chica, guajilpil, jacanicuil, jaquinicuil.*
Elevational range: 1,000–2,250 m
Assessors: GIM, GCT
Refs: [232, 282, 369, 372]

Inga huastecana M.Sousa
EN B1ab(iii)
Mexico (QRO, HGO, VER, PUE)
Small tree, 4–8 m tall. The geographical distribution of this Mexican endemic species is restricted to the Sierra Madre Oriental, growing in cloud forest, oak forest and tropical evergreen forest, frequently on rocky limestone substrates, along creeks, in moist ravines and on slopes. Apparently this species regenerates well as numerous individuals were observed in a secondary forest stand dominated by oak. **Common names:** *chalagüitillo, chalahuite, chalahuite chica, chalahuite chico*.
Elevational range: 850–1,300 m
Assessors: GIM, GCT, JAM
Refs: [58, 282, 295, 369, 370, 372]

Inga micheliana Harms
NT
Mexico (NAY, JAL, MIC, MEX, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Costa Rica, Panama (not in Nicaragua)
Tree, 12–20 m and trunk up 50 cm in diameter. An abundant cloud forest species, it also occurs in pine-oak forest and tropical rainforest. This species is closely related to, and often confused with, *I. densiflora* Benth. and *I. flexuosa* Schltdl. **Synonyms:** *Inga davidsoniae* Standl., *I. nubigena* A.R.Molina, *I. tenella* M.Sousa. **Common names:** *chalum, chalum de montaña, jacanaquil, tzan*.
Elevational range: 400–1,600 (2,200) m
Assessors: GIM, GCT
Refs: [278, 279, 282, 369, 372, 429]

Inga tuerckheimii Pittier
VU B1ab(iii)
Mexico (SLP, QRO, VER, PUE, OAX, CHS), Guatemala
Small to medium-sized tree, 5–10 m, occasionally up to 20 m tall. This species is a cloud forest specialist, not found in other forest types. Once considered a synonym of *I. oerstediana* Benth. [282], Sousa [369, 372] separated these taxa based on their flower bracts. Sousa also proposed Inga × xalapensis Benth., a hybrid between *I. tuerckheimii* Pittier (*I. latibracteata* Harms) and *I. vera* Willd., whose oldest name is *I. xalapensis* Benth. **Synonyms:** *Inga cobanensis* Pittier, *I. latibracteata* Harms [372], although Pennington [282] listed previously this latter name as a synonym of *I. xalapensis* Benth. and the former as a synonym of *I. oerstediana* Benth., in both cases reflecting the complexity of this group's taxonomy. The sarcotesta (the sweet pulp surrounding the seed) is edible and the plant it is used as a shade tree in shade-grown coffee plantations.
Elevational range: 800–1,400 m
Assessors: GIM, GCT
Refs: [282, 369, 372]

Inga xalapensis Benth.
VU B1ab(iii)
Mexico (SLP, VER, PUE, OAX, CHS), Guatemala, Honduras
Small or medium-sized tree, 5–20 m tall. Although occurring in cloud forest, this species is more frequently found in tropical rainforest and tropical evergreen forest of lower elevations, often in disturbed areas, roadsides and cattle pastures. **Synonyms:** *Feuilleea xalapensis* (Benth.) Kuntze, *Inga borealis* T.S.Elias, *I. endlichii* Harms, *I. latibracteata* Harms (but see Sousa [372]), *I. sciadodendron* Harms, *I. zacuapanica* Harms. Sousa [369, 372] proposed *Inga* × *xalapensis* Benth., a hybrid between *I. tuerckheimii* Pittier (*I. latibracteata* Harms) and *I. vera* Willd. **Common names:** *chalahuite, chalahuite de hoja ancha, kon, saan, saaukok, vainillo*. Planted as a shade tree in shade-grown coffee plantations.
Elevational range: 0–1,900 m
Assessors: GIM, GCT
Refs: [58, 282, 369, 372]

Senna multifoliolata (P.G.Wilson) H.S.Irwin & Barneby
EN B1ab(iii)
Mexico (JAL, MIC, GRO, OAX)
Shrub or small tree, 2–8 m. Not restricted to cloud forest, this species also occurs in fir (*Abies*) forest, pine forest and pine-oak forest. This species is only known from a few localities. Irwin & Barneby [176] treated this species under four varietal names. **Synonym:** *Cassia multifoliolata* P.G.Wilson.
Elevational range: 1,700–2,400 m
Assessors: GIM, GCT
Refs: [176, 232, 313]

FAGACEAE

Fagus grandifolia Ehrh. var. ***mexicana*** (Martínez) Little
EN B1ab(iii)+2ab(iii)
Mexico (TAM, HGO, VER, PUE)
Large tree, up to 30 m tall. At the species level, this taxon has a disjunct distribution between Mexico and the United States. The Mexican variety is restricted to very small stands (less than 1 ha scattered in very humid locations along the Sierra Madre Oriental). Considerable genetic differentiation has been reported between the Mexican subspecies and *F. grandifolia* from the United States. This taxon faces further risks of habitat loss owing to human disturbance. **Common names:** *acailite, guichín, haya, pepinque, tepeilitle, totolcal*. The fruit is edible.
Elevational range: 1,440–2,000 m
Assessors: SVA, YVR, JAM
Refs: [4, 151, 196, 289, 334, 397, 445, 446]

Quercus acherdophylla Trel.
CR A4c
Mexico (HGO, VER, PUE, OAX)
Medium-sized tree, up to 25 m tall. This species is restricted to very humid ravines in cloud forest, mostly on the Sierra Madre Oriental reaching the Northern Oaxaca range. Its external appearance is similar to *Quercus laurina*, particularly in leaf size, but this species has an annual acorn maturation, in contrast to the biennial maturation of fruits of *Q. laurina*.
Elevational range: 2,400–2,500 m
Assessors: SVA, JAM
Refs: [405, 406, 413]

Quercus affinis Scheidw.
VU A4cd
Mexico (COA, NL, TAM, SLP, JAL, GTO, QRO, HGO, VER, MIC, PUE, OAX, CHS)
Medium-sized tree, up to 16 m tall. This species typically occurs in cloud forest but it is also frequently found as an element in oak forest, pine-oak forest, pine forest and conifer forest. **Common names:** *encino colorado, encino hasta, laurelillo*.
Elevational range: 1,200–2,600 m
Assessors: SVA, JAM
Refs: [4, 58, 137, 213, 229, 238, 295, 407, 408, 413]

Quercus benthamii A.DC.
EN A3c; B1ab(ii,iii,iv,v)
Mexico (OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized or large tree, up to 50 m tall. This is a rare species typical of cloud forest. In Mexico it is only known from the most humid cloud forests of the La Chinantla region in Oaxaca and of Chiapas. **Common name:** *chiquinib*.
Elevational range: 1,500–3,000 m
Assessors: SVA, JAM
Refs: [279, 305, 309, 408, 413]

Quercus candicans Née
VU A4acd
Mexico (SON, CHI, SIN, DGO, SLP, NAY, JAL, GTO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, GRO, OAX, CHS), Guatemala, El Salvador
Large tree, up to 25 m tall. Although this is a typical cloud forest species, it is also found in oak forest and pine-oak forest, less frequently in riparian habitats. Most of this species' range has been strongly affected by extensive permanent deforestation. However, good regeneration of this species has been observed at forest edges with intermediate light conditions. **Common names:** *ahuahuaxtl, ahuamextli, encino blanco, encino cenizo, encino de agua, encino papatla, huilocualoni, popocamay, tzacui blanco, tzaquioco*.
Elevational range: 1,180–2,600 m
Assessors: SVA, JAM
Refs: [76, 79, 96, 106, 180, 194, 209, 213, 228, 238, 278, 279, 305, 309, 348, 351, 356, 357, 413, 429]

Quercus corrugata Hook.
EN A4c
Mexico (HGO, VER, PUE, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Costa Rica, Panama
Very large tree, up to 60 m tall, with a long, clear trunk. This species is a cloud forest specialist, particularly in very humid regions. The acorns are very large and the species appears to have episodic reproduction, perhaps in the form of mast-seeding.
Elevational range: 700–2,200 (2,500) m
Assessors: SVA, JAM
Refs: [126, 335, 409, 413]

Quercus cortesii Liebm.
NT
Mexico (VER, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Large tree, up to 27 m tall. A typical cloud forest species with a fragmented distribution in southern Mexico. Rarely found with fruit, which appears to indicate infrequent reproductive events.
Elevational range: (450) 800–2,400 (3,000) m
Assessors: SVA, JAM, MGE
Refs: [273, 279, 332, 409]

Quercus crispipilis Trel.
VU A4c;B1ab(ii,iii)
Mexico (CHS), Guatemala
Medium-sized tree, up to 27 m tall and trunk up to 30–60 cm in diameter. This species grows in cloud forest but is not exclusive to this forest type, as it also occurs in oak forest and pine-oak forest. It regenerates well in open areas inside the forest and in abandoned fields. Populations are rather scarce and a little dense. **Synonym:** *Quercus skutchii* Trel. **Common names:** *chiquinib, encino blanco*.
Elevational range: (1,600) 1,800–2,420 m
Assessors: SVA, JAM, MGE
Refs: [124, 279, 302, 303, 309, 413]

Quercus delgadoana S.Valencia, Nixon & L.M.Kelly
EN A4c
Mexico (HGO,VER, PUE)
Large tree, up to 25 m tall. This species is restricted to the very humid cloud forests of the Sierra Madre Oriental in eastern Mexico. Although it is fairly abundant in the forest communities where it grows, its native habitat has been largely reduced by extensive deforestation to give way to traditional agriculture on very steep slopes, and to coffee plantations.
Elevational range: 1,400–2,210 m
Assessors: SVA, JAM
Ref: [415]

Quercus elliptica Née
VU A4cd
Mexico (SIN, NAY, JAL, HGO, VER, MIC, MEX, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua
Medium-sized to large tree, up to 25 m tall. The occurrence of this species is not restricted to cloud forest, and in fact it is more frequently found in oak forest and pine-fir (*Abies*) forest, in correspondence with its wide distribution in Mexico. **Common names:** *encino colorado, encino nanche, encino laurel, encino tapahuite, tapahuile*.
Elevational range: (30) 300–2,460 m
Assessors: SVA, JAM
Refs: [76, 79, 209, 225, 228, 237, 279, 410, 413]

Quercus germana Schltdl. & Cham.
CR A4acd
Mexico (TAM, SLP, JAL, QRO, HGO, VER, PUE, OAX)
Small to medium-sized tree, up to 12 m tall. A Mexican endemic, the species is typical of cloud forest and also grows in oak forest. Individuals of this species are always very scarce. The acorns are gathered as raw material for making handicrafts.
Elevational range: 800–1,800 m
Assessors: SVA, JAM
Refs: [4, 10, 11, 58, 137, 209, 213, 229, 295, 300, 301, 409, 413]

Quercus glabrescens Benth.
VU A4c
Mexico (HGO, PUE, VER, MEX, OAX), Honduras
Large tree, up to 30 m tall, with a long, clear trunk. This species occurs mainly in cloud forest but it is sometimes present in pine forest of humid, cold regions.
Elevational range: 2,450–3,300 m
Assessors: SVA, JAM
Refs: [4, 58, 76, 213, 229, 238, 413]

Quercus hirtifolia M.L.Vázquez, S.Valencia & Nixon
CR A4c
Mexico (HGO, PUE)
Large shrub or small tree, up to 7 (rarely 9) m. A Mexican endemic cloud forest species but also present in oak forest and

conifer forest. This species is found forming small allopatric populations scattered along the Sierra Madre Oriental.
Elevational range: 2,000–2,400 m
Assessors: SVA, JAM
Refs: [409, 413, 424]

Quercus insignis M.Martens & Galeotti
CR A4acd
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras, Costa Rica
Large tree, up to 30 m tall. A typical cloud forest species forming low-density populations, it seems to face regeneration problems. Because of their large size the acorns are highly appreciated as ornamental objects.
Elevational range: 1,500–2,160 m
Assessors: SVA, JAM
Refs: [279, 409, 413]

Quercus lancifolia Schltdl. & Cham.
NT
Mexico (HGO, VER, PUE, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica
Large tree, up to 25 m tall. A scarce cloud forest species with an extensive range in the country and Central America. **Synonym:** *Quercus leiophylla* A.DC.
Elevational range: 1,950–3,000 m
Assessors: SVA, JAM, MGE
Refs: [273, 278, 279, 351, 413]

Quercus macdougallii Martínez
CR A3; B1ab(iii)
Mexico (OAX)
A tree, very variable in size, the species may attain a height of up to 30 m tall but it also occurs as a small-sized shrub capable of reproduction. Known only from cloud forests and oak forests of the Northern Oaxaca Range. It may form dense populations but has an extremely restricted distribution.
Elevational range: 2,400–3,040 m
Assessors: SVA, JAM
Refs: [237, 409, 413]

Quercus martinezii C.H.Mull.
CR A4acd
Mexico (NAY, JAL, MIC, MEX, GRO, OAX)
Large tree, up to 30 m tall. This species is a scarce cloud forest specialist, which occasionally grows in oak forest and pine-oak forest. Its low-density populations are threatened by extensive deforestation over much of its range.
Elevational range: 1,800–2,600 m
Assessors: SVA, JAM
Refs: [76, 79, 96, 180, 207, 236, 406, 410]

Quercus mullerii Martínez
EX
Mexico (OAX)
A narrowly endemic cloud forest species, this taxon is only known from the original collections of 1949, 1952, and 1953, from a few localities in Oaxaca. It has not been collected or observed since, despite efforts to search for it. Therefore, one can reasonably assert that this species is extinct in the wild. We are aware of recent unpublished reports of the presence of a small population in a remote location where the species had been collected a long time ago; this fact remains to be confirmed.
Elevational range: 1,000–1,800 m
Assessors: SVA, JAM
Ref: [413]

Quercus nixoniana S.Valencia & Lozada-Pérez
CR A4cd
Mexico (JAL, GRO, OAX)
Large tree, up to 25 m tall. This is a rare cloud forest species endemic to the Sierra Madre del Sur. Its habitat is severely disturbed by several factors.
Elevational range: 1,300–2,300 m
Assessors: SVA, JAM
Refs: [207, 412, 413]

Quercus oocarpa Liebm.
CR A4c; B2ab(iii)
Mexico (NAY, JAL, GRO), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
Large tree, up to 25 m tall or more. A scarce, typically old-growth cloud forest species. In Mexico it generally occurs in very humid regions. Some specimens of *Quercus insignis* M.Martens & Galeotti from Chiapas have been confused with this species.
Elevational range: 1,400–2,000 m
Assessors: SVA, JAM
Refs: [230, 279, 363, 413]

Quercus paxtalensis C.H.Mull.
CR A4c
Mexico (HGO, VER, OAX, CHS)
Medium-sized tree. A Mexican endemic, this species is rare in cloud forest. It also occurs in oak forest, conifer forest and high elevation tropical dry forest. Local populations are usually small. Frequently confused with *Quercus sartori* Liebm.
Elevational range: 1,100–1,800 m
Assessors: SVA, JAM
Ref: [413]

Quercus pinnativenulosa C.H.Mull.
CR A4c
Mexico (NL, TAM, SLP, QRO, VER)
Medium-sized tree, up to 20 m tall. This species is a cloud forest specialist, frequently found in riparian habitats. The taxon is endemic to the Sierra Madre Oriental where it is represented by few and scattered populations.
Elevational range: 800–1,600 m
Assessors: SVA, JAM
Refs: [58, 413, 414]

Quercus polymorpha Schltdl. & Cham.
EN A4c
United States, Mexico (NL, TAM, SLP, QRO, HGO, VER, PUE, OAX, CHS), Guatemala
Small to medium-sized tree, up to 20 m, but commonly much shorter. This species is an occasional element of cloud forest, as it normally grows in drier vegetation types such as oak forest and pine-oak forest, although it also occurs in tropical evergreen forest at lower elevations. **Common name:** *lancín*. This species is heavily used as a source of firewood.
Elevational range: (450) 700–1,400 (2,000) m
Assessors: SVA, JAM
Refs: [137, 309, 413]

Quercus rubramenta Trel.
EN A3cd; B1ab(ii,iii,iv,v)
Mexico (GRO, OAX)
Large tree, up to 40 m tall, with a long, clean trunk. This canopy-dominant species grows in humid oak forests, cloud forest and occasionally in pine-oak forest. This species has been collected or observed in around 30 localities in Guerrero, and it is known from a single locality in Oaxaca.
Elevational range: 2,200–2,800 m
Assessors: SVA, JAM
Refs: [96, 115, 411, 413]

Quercus rysophylla Weath.
EN A4c
Mexico (NL, TAM, SLP, QRO, HGO, VER)
Medium-sized to large tree, up to 20 m tall. This species is a typical cloud forest component but it also occurs in oak forest. It is never very abundant in the communities where it occurs.
Elevational range: (500) 800–1,700 m
Assessors: SVA, JAM
Refs: [58, 137, 335, 413]

Quercus sapotifolia Liebm.
VU A3c
Mexico (HGO, VER, PUE, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Tree, very variable in size, sometimes up to 30 m tall and trunk up to 70 cm in diameter. A fairly abundant cloud forest species, it also occurs in oak forest and tropical dry forest. **Common name:** *zapotillo*. It is used for poles to build rustic houses and fences, to make tool handles and as a source of firewood.
Elevational range: 250–2,000 m
Assessors: SVA, JAM, MGE
Refs: [213, 228, 238, 250, 279, 309, 363, 413]

Quercus sartorii Liebm.
EN A2c
Mexico (NL, TAM, SLP, QRO, HGO, VER, PUE, OAX)
Medium-sized tree, up to 18 m tall. A Mexican endemic cloud forest species, it is also present in humid oak forest. The geographical range of this species includes the Sierra Madre Oriental and the Northern Oaxaca Range. Trees belonging to this taxon have been often confused with *Quercus paxtalensis* C.H.Mull. and *Quercus xalapensis* Bonpl.
Elevational range: 1,300–2,000 m
Assessors: SVA, JAM
Refs: [4, 10, 11, 31, 58, 137, 213, 227, 229, 295, 300, 301, 413]

Quercus segoviensis Liebm.
VU A3c
Mexico (OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua
Small to medium-sized tree, up to 22 m tall and trunk up to 40 cm in diameter. Occasionally present in cloud forest, this species is more frequently a canopy tree of oak forest and pine-oak forest. Its morphological characterisation is not yet well established. Widely distributed in the states where it occurs, it shows a good regeneration in open areas and in forest edges. It has been confused with *Quercus glabrescens* Benth. **Common name:** *k'antulán*. Its hard timber is used for poles to build rustic houses and fences, to make tool handles, and as a source of firewood.
Elevational range: 750–2,500 m
Assessors: SVA, JAM, MGE
Refs: [180, 194, 279, 309, 413]

Quercus skinneri Benth.
CR A2c
Mexico (VER, OAX, CHS), Guatemala, Belize, El Salvador, Honduras
Medium-sized to large tree, up to 25 m tall. A scarce species usually present in old-growth cloud forests, it also occurs in other humid forests types of southern Mexico. The low abundance and size of the acorns suggest regeneration problems. **Common names:** *chicharro, cololté, roble, tzajalchit*.
Elevational range: 700–2,560 m
Assessors: SVA, JAM
Refs: [225, 238, 279, 332, 413]

Quercus trinitatis Trel.
EN A2c
Mexico (HGO, VER, OAX, CHS), Guatemala, El Salvador
Medium-sized or large tree, 15–30 m tall and trunk up to 80 cm in diameter. A moderately abundant cloud forest species, this tree is also present in oak forest, pine-oak forest and conifer forest. In Mexico its range includes the Sierra Madre Oriental and other mountainous areas of southern regions in the country. This species is often confused with *Quercus laurina* Bonpl., a species restricted to more humid and cooler sites. **Common name:** *chiquinib.* Used for poles to build rustic houses and fences, to make tool handles, and as a source of firewood.
Elevational range: 1,750–3,000 m
Assessors: SVA, JAM, MGE
Refs: [4, 309, 409]

Quercus uxoris McVaugh
CR A2c
Mexico (JAL, COL, MIC, GRO, OAX)
Large tree, up to 30 m tall. This Mexican endemic oak is a scarce tree species typically present in cloud forest but also occurring in oak forest, conifer forest, and occasionally in tropical dry forest. Mostly restricted to very humid sites such as ravines.
Elevational range: 1,500–2,500 m
Assessors: SVA, JAM
Refs: [76, 79, 96, 115, 180, 236, 238, 277, 278, 332, 351, 356, 357, 413]

Quercus vicentensis Trel.
VU A2c
Mexico (JAL, MIC, GRO, OAX, CHS), Guatemala, El Salvador
Large tree, up to 25 m tall. This species has a marginal presence in cloud forest as it prefers considerably drier sites. Most Mexican specimens have been collected in Chiapas. This species appears to be closely related to *Quercus martinezii* C.H.Mull., and future taxonomic work is likely to reveal that this name is a synonym.
Elevational range: 1,100–2,600 m
Assessors: SVA, JAM
Refs: [273, 279, 356, 413]

Quercus xalapensis Bonpl.
CR A2c
Mexico (TAM, SLP, HGO, VER, PUE)
Large tree, up to 30 m tall. A rare cloud forest species with a very restricted distribution along the Sierra Madre Oriental. It can be confused with *Quercus sartorii* Liebm. and *Quercus paxtalensis* C.H.Mull. Numerous specimens collected in Central America have been erroneously identified as *Q. xalapensis* but in fact they may belong to *Q. paxtalensis*. **Common names:** *barrilillo, encinar capulincillo, roble de duelas.*
Elevational range: 1,400–2,300 m
Assessors: SVA, JAM
Refs: [4, 58, 79, 126, 209, 227, 277, 279, 300, 301, 316, 332, 356, 357, 409, 413, 429]

GARRYACEAE

Garrya laurifolia Hartw. ex Benth.
VU A4c; B2ab(iii)
Mexico (CHI, NL, TAM, DGO, ZAC, SLP, NAY, JAL, AGS, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, GRO, OAX, CHS), Guatemala, Costa Rica, Panama
Shrub, small or medium-sized tree, up to 15 m and trunk up to 15 cm in diameter. This species typically occurs at high elevations and is a frequently found cloud forest species. It is also a frequent component of fir (*Abies*) forest, pine-oak forest and paramo vegetation. Chiapas populations are considered to be a different subspecies, namely *Garrya laurifolia* Hartw. ex Benth. subsp. *quichensis* (Donn.Sm.) Dahling. This high-elevation taxon is potentially susceptible to the effects of climate change. **Synonyms:** *Fadyenia laurifolia* (Hartw. ex Benth.) Endl., *Garrya macrophylla* Benth., *G. oblonga* Benth., *G. racemosa* Ramírez. **Common names:** *ajruch, azul, bi'tal ik'al, chichicuáhuitl, cuachichic, cuanchichi, guachichi ovitano, hediondillo, ijk'al winik, ovitano, palo azul, palo de hueso, palo negro, quauchichic, tza'los te, zapotillo*. Some medicinal uses have been reported for the leaves and bark (which contains at least four alkaloids) in treating diarrhoea.
Elevational range: (1,100) 1,500–3,900 m
Assessors: JAM, SVA, ILV
Refs: [2, 50, 58, 76, 79, 105, 124, 135, 137, 144, 162, 225, 267, 279, 302, 309, 356]

HAMAMELIDACEAE

Matudaea trinervia Lundell
VU A3c; B1ab(iii)
Mexico (JAL, VER, MEX, PUE, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Colombia
Tree up to 35 m tall and trunk more than 1.5 m in diameter. This is a widely distributed species. A typical cloud forest element, this taxon also thrives in pine forest, pine-oak forest and tropical rainforest, often with a clear preference for moist and shaded ravines. **Synonym:** *M. hirsuta* Lundell. Based on pubescence of petioles and branches, González-Villarreal *et al*. [150] divided this species into two sympatric subspecies: var. *hirsuta* (Lundell) L.M.González & N.Jiménez, endemic to Jalisco and Mexico, and var. *trinervia*, found throughout the geographic range of the species. **Common names:** *ajocoahuitl, cuencudo, guayabillo, montón, naranjillo, palo blanco, palo de barranco, quebracho*.
Elevational range: 400–2,400 m
Assessors: ILV, JAM, GIM
Refs: [79, 150, 225, 277, 279, 356, 363, 429, 444]

ICACINACEAE

Calatola costaricensis Standl.
VU A4c
Mexico (VER, OAX, CHS), Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil
Small to medium-sized dioecious tree, up to 24 m tall. In Mexico this species occurs in cloud forest but more frequently in tropical rainforest and tropical evergreen forest at lower elevations. **Common name:** *nuez*.
Elevational range: 0–2,400 m
Assessor: JAM
Refs: [173, 357, 432]

Calatola laevigata Standl.
EN B2ab(i,ii,iii)
Mexico (JAL, VER, OAX, CHS), Guatemala, Belize
Medium-sized dioecious tree, up to 25 m tall but usually smaller, and trunk up to 30 cm. This species is very scarce in cloud forest (it is known from about 10 localities). Conversely, it is more frequently found in tropical rainforest and tropical evergreen forest of lower elevations. **Common names:** *aguacate de mono, azulillo, boné, calate, calatola, calatolazno, duraznillo, onmanchinté, palo de tinta, nuez de calatola*. The fruit is edible but only when roasted. The wood is used for construction in rural areas but it has a short durability.
Elevational range: (650) 800–2,300 m
Assessors: JAM, Expert Group May 2007
Refs: [79, 157, 173, 225, 267, 277, 279, 285, 351, 432]

Calatola mollis Standl.
EN A4c
Mexico (VER, PUE, OAX, CHS)
Medium-sized dioecious tree, up to 20 m tall. Although cloud forest is the preferred habitat of this species, it is also present in some adjacent moist forests at lower elevations such as tropical rainforest and tropical evergreen forest. Overall, it is scarce where it occurs. Specimens of this species have been misidentified as *Calatola costaricensis*. **Common names:** *calatola, calatolazno, colas de rata, duraznillo, durazno de mono, jicarilla, mata caballo, nuez de calatola, nuez montaña, palo de tinta, zapote de mono*. The fruit is used sometimes as medicine.
Elevational range: (450) 700–1,100 (1,720) m
Assessor: JAM
Refs: [157, 225, 432]

Oecopetalum greenmanii Standl. & Steyerm.
EN A4c
Mexico (TAB, CHS), Guatemala, Nicaragua, Costa Rica
Medium-sized to large tree, up to 30 m tall. A cloud forest species, it is also present in tropical humid forests of the lowlands. In Mexico it is known only from southern localities. **Common names:** *cacaté de mayo, tojancuquica*.
Elevational range: 0–1,800 m
Assessor: JAM
Refs: [225, 279]

Oecopetalum mexicanum Greenm. & C.H.Thomps.
CR A4c
Mexico (VER, OAX, CHS), Guatemala
Medium-sized to large tree, up to 25 m tall. This species is marginal to cloud forest as it occurs more frequently near the lower limit of this vegetation type, in its ecotone with typical lowland vegetation, such as tropical rainforest, tropical evergreen forest and tropical semi-evergeen forest. In spite of its relatively restricted geographical range, this tree is more or less abundant in the communities where it occurs. **Synonym:** *Oecopetalum guatemalense* R.A.Howard. **Common names:** *cacaté, cacaté de septiembre, cachichín, jamacuquiaca*. Fruit is eaten occasionally (roasted).
Elevational range: 500–1,200 m
Assessors: JAM, Expert Group May 2007
Refs: [157, 225, 279]

ILLICIACEAE

Illicium mexicanum A.C.Sm.
VU A3c
Mexico (TAM, HGO, VER, PUE)
Shrub or small tree, up to 7 m tall. A cloud forest specialist, this species has been treated as a synonym of *Illicium floridanum* J.Ellis; however, there is strong morphological and genetic evidence suggesting that both are good species, and that they should be therefore treated separately.
Elevational range: 1,800–2,300 m
Assessor: JAM
Ref: [61]

JUGLANDACEAE

Alfaroa costaricensis Standl. subsp. ***septentrionalis*** D.E.Stone
VU B2ab(i,ii,iii)
Mexico (VER, GRO, CHS), Guatemala
Large tree, up to 27 m tall. This subspecific taxon is restricted to cloud forest in very humid mountainous regions of southern Mexico and neighbouring Guatemala, where it tends to be scarce. This taxon may be particularly vulnerable to climatic change, if conditions are to become drier than present ones. **Common name:** *chichiscua*.
Elevational range: 1,350–2,000 m
Assessor: JAM
Refs: [207, 253, 391]

Alfaroa mexicana D.E.Stone
VU B2ab(i,ii,iii)
Mexico (VER, OAX, CHS), Guatemala, Costa Rica
Very large deciduous tree, up to 50 m tall. This species is a cloud forest specialist. Notwithstanding its relatively large geographical range, trees of this species only occur in scattered locations and always at very low densities. **Common names:** *cash, cedrillo, palo de cedrillo*.
Elevational range: (850) 1,100–1,700 m
Assessors: JAM, Expert Group May 2007
Refs: [253, 267]

Carya ovata (Mill.) K.Koch var. ***mexicana*** (Engelm. ex Hemsl.) Manning
NT
Mexico (NL, TAM, SLP, GTO, QRO, HGO, VER, PUE)
Medium-sized tree, up to 20 m tall. This taxon is relatively abundant in pine forest and pine-oak forest but its occurrence in cloud forest is occasional. **Synonyms:** *Carya mexicana* Engelm. ex Hemsl., *Juglans ovata* Mill. **Common name:** *nogal cimarrón*. The wood is used for making tools.
Elevational range: 1,100–1,800 m
Assessor: JAM
Refs: [11, 31, 58, 137, 213, 229, 253, 286, 295, 300, 301]

Carya palmeri Manning
NT
Mexico (NL, TAM, SLP, QRO, VER)
Medium-sized to large tree, up to 25 m tall with a trunk up to 30 cm in diameter. This Mexican endemic species occurs in cloud forest in Veracruz but it is more frequently found in pine forest and pine-oak forest elsewhere. **Common names:** *coamecate, coní.* The bark is used to make rope.
Elevational range: 800–1,800 m
Assessors: JAM, GIM
Refs: [4, 58, 229, 253, 286, 295]

Juglans mollis Engelm.
NT
Mexico (COA, NL, TAM, SLP, JAL, GTO, QRO, HGO, MEX, MOR, PUE)
Medium-sized tree, up to 18 m tall. This Mexican endemic species occurs in cloud forest as well as in humid pine forest and oak forest. **Common names:** *denza, gä fani, nogal, nogal encarcelado, nuez de caballo, nuez meca*. The wood is used for construction and for making fine furniture, handicrafts, and turned wood articles. There are records of this species being a medicinal plant.
Elevational range: 1,100–2,150 m
Assessors: JAM, GIM
Refs: [4, 58, 137, 229, 267, 286, 300, 301]

Juglans olanchana Standl. & L.O.Williams
VU A4c
Mexico (JAL, VER, COL), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica
Large tree, up to 30 m tall and trunk up to over 100 cm in diameter. This is a typical cloud forest species, although it also occurs in drier forest types. **Synonym:** *Juglans guatemalensis* Manning. **Common names:** *nogal, cedro nogal*. The wood is used for decoration as wooden surfacing, the bark is sometimes used in folk medicine.
Elevational range: 1,000–1,100 m
Assessor: JAM
Refs: [79, 253]

Juglans pyriformis Liebm.
EN A2d; B2ab(i,ii,iii)
Mexico (TAM, VER, HGO, OAX, CHS)
Medium-sized to large tree, up to 25 m tall and trunk up to 90 cm in diameter. A rare species, this Mexican endemic taxon is almost completely restricted to cloud forest, but it has also been found growing on very steep slopes and cliffs in areas of pine-oak forest, pine forest and in riparian habitats. In Mexico it has been reported from a few localities scattered across a large area. **Common names:** *cedro nogal, nogal, nogal cimarrón*. The timber of this tree is of very high quality and and highly valued for making furniture and musical instruments. This has led to overexploitation and, at least in some places, this tree has become extremely scarce.
Elevational range: (1,000) 1,200–1,400 (1,900) m
Assessors: JAM, Expert Group May 2007
Refs: [76, 209, 253, 267, 445]

Oreomunnea mexicana (Standl.) Leroy subsp. ***mexicana***
EN A2d; B2ab(i,ii,iii)
Mexico (OAX, VER), Costa Rica, Nicaragua, Panama
Very large tree, up to 40 m tall or more, with massive trunks reaching more than 100 cm in diameter. A cloud forest species with a very restricted distribution in very humid regions. The presence of this tree in Chiapas has been long suspected and even reported but so far it has not been proven. In some areas this tree is the absolute dominant in the forest canopy and it even forms monospecific stands. This taxon is considered to be at great risk due to potential climate change to drier conditions. Very few individuals remain in Veracruz where its range has been largely cleared for agriculture. Conversely, in Oaxaca, extensive communities dominated by this species still remain, particularly in inaccessible areas. **Synonyms:** *Engelhardtia mexicana* Standl., *E. nicaraguensis* Ant.Molina. **Common names:** *nicoxcuauhitl, palo de zopilote, zopilote*. The timber is very hard and highly valued for making baseball bats and fine furniture.
Elevational range: (900) 1,100–2,000 m
Assessor: JAM
Refs: [225, 253, 267, 279, 347, 431, 445]

Lacistemaceae

Lacistema aggregatum (P.J.Bergius) Rusby
NT
Mexico (SIN, TAM, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay, Jamaica, Lesser Antilles
Small to medium-sized tree, up to 11 m tall. Mostly growing near the lower elevational limit of cloud forests, this species also occurs in other vegetation types (mainly tropical rain forest but also savanna and riparian habitats). Always scarce and typically a primary forest component. **Synonyms:** *Lacistema myricoides* Sw., *Piper aggregatum* P.J.Bergius.
Elevational range: 130–1,800 m
Assessor: JAM
Refs: [263, 279]

Lauraceae

Beilschmiedia angustielliptica Lorea-Hern.
EN B1ab(iii)
Mexico (GRO)
Small tree, up to 8 m tall. The distribution of this Mexican endemic species is restricted to cloud forest.
Elevational range: 1,350–1,650 m
Assessor: FLH
Refs: [198, 207, 269]

Beilschmiedia manantlanensis Cuevas & Cochrane
EN B1ab(iii)
Mexico (JAL)
A large tree, 20–30 m tall. This species has so far been recorded only in cloud forest, in the Sierra de Manantlán region, where it mostly grows in humid ravines. Although the species is not abundant, it has been reported to have a good recruitment rate of young individuals.
Elevational range: 1,000–1,900 m
Assessor: FLH
Refs: [78, 269, 351]

Beilschmiedia mexicana (Mez) Kosterm.
EN B1ab(iii)
Mexico (SLP, QRO, HGO, VER, PUE)
Small to medium-sized tree, 4–10 (20?) m tall. In addition to cloud forest, this species is also frequently found in tropical semi-evergreen forest and oak forest, rarely in pine forest. Endemic to eastern Mexico (specimens ascribed to this taxon from Guerrero, Chiapas and Belize might be a different species).
Elevational range: (700) 1,000–1,700 m
Assessor: FLH
Refs: [58, 198, 269, 295]

Beilschmiedia ovalioides Sa.Nishida
EN B1ab(iii)
Mexico (OAX, CHS)
Tree, up to 35 m tall. This is a narrowly Mexican endemic taxon that is restricted to cloud forest.
Elevational range: 1,850–2,750 m
Assessor: FLH
Refs: [198, 269]

Beilschmiedia ovalis (S.F.Blake) C.K.Allen
VU B1ab(iii)
Mexico (OAX, CHS), Honduras, Costa Rica, Panama
Tree, up to 30 m tall. This typical cloud forest species may also be found in oak forest, at least in Mexico.
Elevational range: 1,800–2,800 m
Assessor: FLH
Refs: [198, 431]

Cinnamomum areolatum (Lundell) Kosterm.
EN B1ab(iii)
Mexico (OAX, CHS), El Salvador (?)
Small tree, 3–10 m tall. This species is frequently found in cloud forest but it also occurs in pine and oak forest. **Synonym:** *Phoebe areolata* Lundell.
Elevational range: (1,200) 1,800–2,500 m
Assessor: FLH
Ref: [198]

Cinnamomum bractefoliaceum Lorea-Hern.
EN B1ab(iii)
Mexico (TAM, SLP, QRO)
Small tree, 4–6 (10) m tall. This taxon is rare in cloud forest as it normally grows in oak and pine forest. Endemic to Mexico, particularly to the Sierra Madre Oriental.
Elevational range: 1,000–1,800 m.
Assessor: FLH
Refs: [58, 197]

Cinnamomum breedlovei (Lundell) Kosterm.
EN B1ab(iii)
Mexico (OAX, CHS)
Large tree, up to 30 m tall. This species is endemic to southern Mexico and ecologically restricted to cloud forest. **Synonym:** *Phoebe breedlovei* Lundell.
Elevational range: 1,500–2,000 m
Assessor: FLH
Ref: [198]

Cinnamomum concinnum Lorea-Hern.
CR B1ab(iii)
Mexico (OAX)
Small tree, 3–5 m tall. Apparently a very local endemic, this species is a very narrow cloud forest specialist. Although unconfirmed, this taxon may now be extinct, as the only locality known in Oaxaca suffered a very severe fire in 1998. Specimens ascribed to this taxon from Guerrero might be a different species. **Synonym:** *Phoebe elegans* van der Werff.
Elevational range: 1,770 m
Assessor: FLH
Ref: [198]

Cinnamomum effusum (Meisn.) Kosterm.
EN B1ab(iii)
Mexico (SLP, QRO, HGO, VER, PUE)
Medium-sized tree, up to 20 m tall. A fairly abundant cloud forest element, this species also occurs in pine-oak forest. Endemic to the Sierra Madre Oriental in eastern Mexico. **Synonyms:** *Phoebe effusa* Meisn., *P. barbeyana* Mez, *Cinnanomum barbeyanum* (Mez) Kosterm. **Common names:** *aguacatillo, aguacatillo blanco, aretillo colorado, laurelillo, palo de quesca, sagkukata*.
Elevational range: 1,000–1,600 m
Assessor: FLH
Refs: [58, 126, 198, 295]

Cinnamomum pachypodum (Nees) Kosterm.
NT
Mexico (SLP, GTO, QRO, HGO, VER, MIC, PUE, OAX)
Small or medium-sized tree, 6–10 (15) m tall. In addition to cloud forest, this taxon is found in several vegetation types, such as pine-oak forest, oak forest, and even (according to herbarium data) tropical dry forest. This species is endemic to eastern and central Mexico. **Synonyms:** *Cinnamomum arsenei* (C.K.Allen) Kosterm., *C. ehrenbergii* (Mez) Kosterm., *Phoebe arsenei* C.K.Allen, *P. benthamiana* (Nees) Mez, *P. ehrenbergii* Mez, *P. pachypoda* (Nees) Mez.
Elevational range: (300) 1,100–2,000 (2,200) m
Assessor: FLH
Refs: [58, 76, 79, 198, 348, 351, 356, 357]

Cinnamomum padiforme (Standl. & Steyerm.) Kosterm.
EN B1ab(iii)
Mexico (JAL, GRO), Guatemala, Honduras, Nicaragua
Small to medium-sized tree, 6–15 (25) m tall. This cloud forest species also occurs in pine forest and oak forest. Further studies may prove that the populations in western Mexico are in fact a different species from those in Central America. **Synonym:** *Phoebe padiformis* Standl. & Steyerm.
Elevational range: (600) 1,200–2,100 m
Assessor: FLH
Refs: [198, 209]

Cinnamomum salicifolium (Nees) Kosterm.
VU B1ab(iii)
Mexico (QRO, HGO)
A shrub, 1–3 m, or small tree, 3–6 m tall. Mainly found in oak forest and oak-juniper forest, this species is rare in cloud forest. **Synonym:** *Phoebe salicifolia* Nees.
Elevational range: 1,000–1,900 m
Assessor: FLH
Refs: [58, 418]

Cinnamomum zapatae Lorea-Hern.
EN B1ab(iii)
Mexico (GRO, OAX, CHS), Guatemala
Medium-sized to large tree, up to 25 m tall. This species occurs in cloud forest and pine-oak forest. **Common name:** *canelillo*.
Elevational range: (1,300) 1,600–2,450 (2,750) m
Assessor: FLH
Refs: [115, 197, 198, 363, 431]

Licaria campechiana (Standl.) Kosterm.
VU A2c; B1ab(iii)
Mexico (QRO, VER, CHS, CAM, YUC, QTR), Guatemala, Belize
Small to large tree, 4–10 (25) m. A very rare tree in cloud forest, this species mostly grows in tropical semi-evergreen forest and tropical rain forest. In fact, the occurrence of this taxon in cloud forest is confirmed by just three records from Querétaro. However, the specimens bear only fruit so may belong to another species as their identity cannot be fully ascertained. **Synonyms:** *Ocotea campechiana* Standl., *Misanteca campechiana* (Standl.) Lundell.
Elevational range: 100–260 (1,100) m
Assessor: FLH
Refs: [58, 198, 418]

Licaria capitata (Schltdl. & Cham.) Kosterm.
EN B1ab(iii)
Mexico (SLP, VER, PUE, OAX, TAB, CHS), Guatemala, Belize, Honduras
Small to medium-sized tree, 5–10 (20) m tall. Marginal in cloud forest, this species mostly occurs in tropical semi-evergreen forest and tropical rainforest but it is also found in pine and oak forest at lower elevations. **Synonyms:** *Acrodiclidium capitatum* (Schltdl. & Cham.) Lundell, *Misanteca capitata* Schltdl. & Cham.
Elevational range: 50–1,000 (1,500) m
Assessor: FLH
Ref: [198]

Licaria chinanteca Lorea-Hern.
EN B1ab(iii)
Mexico (OAX)
Small tree, 6–12 m tall. This cloud forest specialist is endemic to a small region in the Sierra Madre del Sur in Mexico.
Elevational range: 1,250–1,750 (2,000) m
Assessor: FLH
Ref: [198]

Licaria excelsa Kosterm.
VU B1ab(iii)
Mexico (VER, PUE, GRO, OAX, CHS), Guatemala, Costa Rica, Panama
Large tree, up to 30 m. A frequently found cloud forest element, it is also present in tropical rainforest and tropical semi-evergreen forest. **Synonyms:** *Licaria alata* Miranda, *Misanteca alata* (Miranda) Miranda, *M. excelsa* (Kosterm.) Lundell. **Common name:** *canelillo*.
Elevational range: (100) 600–1,700 (2,000) m
Assessor: FLH
Refs: [198, 333, 363]

Licaria glaberrima (Lundell) C.K.Allen
EN B1ab(iii)
Mexico (CHS)
Small or medium-sized tree, 7–15 m tall. This species is nearly a cloud forest specialist but it has also been found (rarely) in pine-oak forest. Endemic to Mexico. **Synonym:** *Acrodiclidium glaberrimum* Lundell. **Common name:** *canelillo*.
Elevational range: 1,800–2,100 m
Assessor: FLH
Refs: [198, 363]

Licaria mexicana (Brandegee) Kosterm.
EX
Mexico (VER)
Small tree. According to data of associated species, this taxon probably grew in cloud forest, or at the contact with tropical semi-evergreen forest. Endemic to Mexico but as it has not been collected for over 80 years it is reasonable to consider it extinct. **Synonym:** *Acrodiclidium mexicanum* Brandegee.
Elevational range: c. 1,200 m
Assessor: FLH
Ref: [198]

Licaria phymatosa Lorea-Hern.
EN B1ab(iii)
Mexico (GRO)
Medium-sized to large tree, 15–20 (35) m tall. This species is a restricted element of the cloud forest flora. Endemic to Mexico, where it is only known from the Sierra Madre del Sur.
Elevational range: (1,500) 1,800–2,300 m
Assessor: FLH
Refs: [198, 199]

Licaria siphonantha Lorea-Hern.
EN B1ab(iii)
Mexico (GRO)
Medium-sized tree, 10–15 (20) m tall. This cloud forest species also occurs in tropical semi-evergreen forest. Endemic to Mexico.
Elevational range: (900) 1,200–1,750 m
Assessor: FLH
Refs: [198, 199]

Litsea glaucescens Kunth
VU A2
Mexico (TAM, QRO, HGO, VER, PUE, GRO, OAX), Guatemala
Small tree, up to 8 m tall. In addition to cloud forest, this species is also found in oak forest and pine-oak forest. Germination in nurseries is 30–60% but the seeds must be washed with lukewarm water and the pulp removed before being sown in an organically-enriched bed at 1 cm deep. Fruit should be collected from the branches. **Synonyms:** *Litsea acuminatissima* Lundell, *L. cervantesii* Kunth. **Common names:** *ecapatli, laurel, laurel de olor, tzis-uch, tzajaltziltzil zujch*. Used as a source of firewood and the dried leaves are commonly used and sold as a condiment. Some medicinal uses are reported.
Elevational range: 1,000–2,500 m
Assessors: FLH, MGE
Refs: [4, 58, 76, 96, 115, 180, 209, 229, 277, 309, 429]

Litsea guatemalensis Mez
NT
Mexico (DGO, ZAC, JAL, HGO, VER, MIC, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica
Small to medium-sized tree, 2–6 (15) m tall. An infrequent element of the cloud forest flora, this species mostly occurs in more seasonal vegetation types such as pine-oak forest and oak forest. **Synonyms:** *Litsea flavescens* Bartlett, *L. matudae* Lundell. **Common names:** *laurel, laurel de olor.*
Elevational range: 1,500–3,000 m
Assessor: FLH

Mocinnodaphne cinnamomoidea Lorea-Hern.
EN B2ab(iii)
Mexico (GRO, OAX[?])
Small tree, 3–10 m tall. A taxon restricted to cloud forest. This species is the only representative of a monotypic genus endemic to Mexico.
Elevational range: 1,600–1,800 m.
Assessor: FLH
Refs: [198, 201, 207]

Nectandra cuspidata Nees
NT
Mexico (VER, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Panama, Colombia, Venezuela, Guyana, Suriname, Peru, Bolivia, Brazil, Paraguay
Medium-sized to large tree, 15– 30 m tall. Rare in cloud forest, this species is mostly found in tropical rainforest and tropical semi-evergreen forest. **Synonym:** *Nectandra gentlei* Lundell. **Common names:** *laurel, aguacatillo*.
Elevational range: 100–1,500 m
Assessor: FLH
Ref: [331]

Nectandra lundellii C.K.Allen
VU A2c
Mexico (JAL[?], VER, OAX, TAB, CHS), Guatemala, Belize, Honduras
Medium-sized tree, up to 25 m tall. Infrequent in tropical semi-evergreen forest and tropical rainforest, this species has so far not been recorded in cloud forest along the Sierra Madre Oriental in the Gulf of Mexico slope. The only existing record of the species in cloud forest comes from a single locality at the Sierra de Manantlán in Jalisco (western Mexico). However, the identity of that record is in doubt as the specimen only has fruits and lacks flowers. **Synonyms:** *Persea gentlei* Lundell, *Phoebe gentlei* (Lundell) Standl. & Steyerm.
Elevational range: 100–700 m
Assessor: FLH
Refs: [331, 356]

Nectandra reticulata (Ruiz & Pav.) Mez
NT
Mexico (VER, PUE, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Suriname, French Guiana, Ecuador, Peru, Bolivia
Tree very variable in size, 6–15 (30?) m tall. With a marginal presence in cloud forest, this species mostly occurs in tropical rainforest, tropical semi-evergreen forest and oak forest.
Elevational range: 100–1,300 (2,500) m
Assessor: FLH
Ref: [331]

Nectandra rudis C.K.Allen
EN B1ab(iii)
Mexico (CHS), Guatemala, El Salvador
Medium-sized to large tree, 15–20 (30) m tall. Cloud forest is largely the preferred habitat of this species. **Common name:** *aguacatillo*.
Elevational range: 1,600–2,500 m
Assessor: FLH
Refs: [331, 363]

Nectandra salicifolia (Kunth) Nees
NT
Mexico (TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, PUE, GRO, OAX, TAB, CHS, CAM, QTR), Guatemala, Belize, Honduras, Nicaragua
Small to medium-sized tree, 3–10 (20) m tall. Frequently found in cloud forests of southern Mexico, this species also occurs in tropical semi-evergreen forest, tropical rainforest, oak forest and pine-oak forest. **Synonyms:** *Nectandra loeseneri* Mez, *Ocotea salicifolia* Kunth, *Persea salicifolia* (Kunth) Spreng. **Common names:** *aguacatillo, laurel, laurelillo, puchitum*.
Elevational range: 50–1,500 (2,300) m
Assessor: FLH
Refs: [58, 76, 137, 277, 331]

Nectandra salicina C.K.Allen
EN B1ab(iii)
Mexico (CHS), Costa Rica, Panama
Small to medium-sized tree, 5–10 (18) m tall. This species is known to occur in cloud forest in Chiapas but in Central America it is also found in other vegetation types. **Common name:** *aguacatillo*.
Elevational range: (370) 600–1,400 (2,000) m
Assessor: FLH
Refs: [331, 363]

Ocotea acuminatissima (Lundell) Rohwer
VU B1ab(iii)
Mexico (GRO, OAX, CHS), Guatemala
Medium-sized tree, 5–10 (20) m tall. Mostly occurring in cloud forest, this species is also found in pine-oak forest. Several collections from areas located north of Guerrero (i.e. JAL, NAY) may prove to be the same species. **Synonyms:** *Phoebe acuminatissima* Lundell, *P. saxchanalensis* Lundell, *P. siltepecana* Lundell. **Common name:** *canelillo*.
Elevational range: (900) 1,600–2,000 (2,700) m
Assessor: FLH
Refs: [198, 363]

Ocotea atacta Lorea-Hern.
EN B1ab(iii)
Mexico (GRO, OAX)
Medium-sized to large tree, 15–25 (35) m tall. This is a typical cloud forest species but it also occurs in tropical semi-evergreen forest. Endemic to southern Mexico with a distribution restricted to the Sierra Madre del Sur.
Elevational range: 600–1,650 m
Assessor: FLH
Ref: [199]

Ocotea botrantha Rohwer
EN B1ab(iii)
Mexico (OAX, CHS), Guatemala, El Salvador, Honduras
Small to medium-sized tree, 8–15 (20) m tall. Mostly occurring in cloud forest, this species has been also recorded from tropical semi-evergreen forest, tropical rainforest and pine-oak forest. **Synonym:** *Persea matudai* Lundell.
Elevational range: 800–1,700 (2,500) m
Assessor: FLH
Refs: [198, 228]

Ocotea bourgeauviana (Mez) van der Werff
EN B1ab(iii)
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras
Small tree, 4–8 (15) m tall, or shrub (2 m). This cloud forest species also occurs in tropical rainforest and tropical semi-evergreen forest. **Synonyms:** *Phoebe bourgeauviana* Mez, *P. chinantecorum* R.E.Schult.
Elevational range: (200) 670–1,200 m
Assessor: FLH
Refs: [198, 416]

Ocotea candidovillosa Lorea-Hern.
EN B1ab(iii)
Mexico (GRO, OAX)
Small to medium-sized tree, (4) 10–20 m tall. This species has a very narrow distribution in high elevation cloud forest. Endemic to southern Mexico.
Elevational range: (2,100) 2,400–2,600 (2,850) m
Assessor: FLH
Refs: [96, 115, 198]

Ocotea chiapensis (Lundell) Standl. & Steyerm.
EN B1ab(iii)
Mexico (GRO, OAX, CHS), Guatemala
Medium-sized to large tree, up to 25 m tall. In Mexico this species is a cloud forest specialist. **Synonym:** *Nectandra chiapensis* Lundell. **Common name:** *tepeaguacate*.
Elevational range: (1,250) 1,850–2,100 (2,700) m
Assessor: FLH
Refs: [96, 198, 228, 363]

Ocotea disjuncta Lorea-Hern.
EN B1ab(iii)
Mexico (VER, GRO, OAX)
Small to medium-sized tree, (6) 15–20 m tall. This species is endemic to Mexico where it is narrowly restricted to cloud forest. **Common name:** *vara negra*.
Elevational range: 1,700–2,500 m
Assessor: FLH
Refs: [126, 198]

Ocotea effusa (Meisn.) Hemsl.
EN B1ab(iii)
Mexico (VER, OAX, CHS), Guatemala, Belize
Small to medium-sized tree, 5–20 m tall. This cloud forest species also occurs in tropical rainforest.
Elevational range: (150) 650–1,700 (1,900) m
Assessor: FLH
Refs: [126, 198, 416, 431]

Ocotea helicterifolia (Meisn.) Hemsl.
VU B1ab(iii)
Mexico (VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
Small tree, 3–8 (15) m tall, or shrub, 2–4 m. This species is not a cloud forest specialist as it also occurs in pine forest, oak forest, and tropical semi-evergreen forest. **Synonyms:** *Phoebe helicterifolia* (Meisn.) Mez, *P. nectandroides* Mez.
Elevational range: (150) 950–1,700 (2,300) m
Assessor: FLH
Refs: [198, 295, 333, 416, 431]

Ocotea iridescens Lorea-Hern. & van der Werff
CR B1ab(iii)
Mexico (OAX, CHS[?])
Small tree, 3–5 (8) m tall. This taxon is endemic to southern Mexico and is narrowly restricted to cloud forest.
Elevational range: 1,500–1,800 m
Assessor: FLH
Ref: [198]

Ocotea klotzschiana (Nees) Hemsl.
EN B1ab(iii)
Mexico (QRO, HGO, VER, PUE)
Tree, 5–10 (15) m tall, or a shrub, 2–4 m. This cloud forest species is also found in pine-oak forest. Endemic to Mexico where it is restricted to the Sierra Madre Oriental.
Elevational range: 1,300–1,950 (2,260) m
Assessor: FLH
Refs: [4, 58, 198, 229]

Ocotea leucoxylon (Sw.) Laness.
NT
Mexico (VER, PUE, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Cuba, Jamaica, Dominican Republic, Lesser Antilles
Small to medium-sized dioecious tree, 6–15 m tall. In addition to cloud forest, this taxon is also known from tropical rainforest and tropical semi-evergreen forest. In spite of the large geographical range of this species, it is usually not abundant locally. **Synonym:** *Ocotea lenticellata* Lundell.
Elevational range: (200) 1,200–1,500 m
Assessor: FLH
Refs: [198, 416]

Ocotea matudae Lundell
EN B2ab(iii)
Mexico (CHS)
Small tree, 4–6 m. A strictly cloud forest specialist, this taxon is endemic to southern Mexico where its habitat is severely threatened.
Elevational range: 1,300–2,000 (2,700?) m
Assessor: FLH
Refs: [198, 416]

Ocotea parvula (Lundell) van der Werff
EN B2ab(iii)
Mexico (OAX[?], CHS)
Treelet, 3–6 m tall. Restricted to cloud forest, this species is endemic to southern Mexico where its habitat is severely threatened. **Synonym:** *Phoebe parvula* Lundell.
Elevational range: 1,000–2,000 m
Assessor: FLH
Refs: [198, 416]

Ocotea platyphylla (Lundell) Rohwer
EN B1ab(iii)
Mexico (CHS), Guatemala, El Salvador
Medium-sized tree, up to 15 m tall. This species is restricted to cloud forest, at least in Mexico, where its habitat is severely threatened. **Synonyms:** *Nectandra platyphylla* (Lundell) C.K.Allen, *Phoebe platyphylla* Lundell. **Common name:** *aguacatillo*.
Elevational range: 1,600–1,900 m
Assessor: FLH
Refs: [198, 363, 416]

Ocotea psychotrioides Kunth
EN B1ab(iii)
Mexico (VER, PUE)
Small tree, 3–6 (8) m, or shrub, 1–3 m. This Mexican endemic species mostly occurs in cloud forest but it is also found in oak forest. Specimens from Hidalgo and Querétaro collected in cloud forest might be a different species. **Synonym:** *Phoebe psychotrioides* (Kunth) Mez.
Elevational range: (700) 1,100–1,600 (1,800) m
Assessor: FLH
Refs: [58, 126, 198]

Ocotea puberula (Rich.) Nees
NT
Mexico (VER, OAX, CHS), Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay
Dioecious tree, 4–15 (25) m tall. Marginal to cloud forest, this species mostly occurs in tropical semi-evergreen forest. A species of wide distribution but not locally abundant. **Synonym:** *Ocotea pyramidata* S.F.Blake.
Elevational range: 150–1,600 m
Assessor: FLH
Refs: [198, 416]

Ocotea salvinii Mez
EN B2ab(iii)
Mexico (CHS), Guatemala
Medium-sized tree, 12–20 m tall. This is a typical species of high elevation cloud forest, although is also occurs in pine-oak forest of those elevations. Its habitat is severely threatened by land-use change. **Synonym:** *Phoebe salvinii* (Mez) Lundell.
Elevational range: 2,500–3,000 m
Assessor: FLH
Refs: [198, 416]

Ocotea sarcodes Lorea-Hern.
EN B2ab(iii)
Mexico (OAX)
Medium-sized tree, 15–20 m tall. This taxon is narrowly endemic to southern Mexico where it grows in cloud forest and oak forest. Its habitat is severely threatened.
Elevational range: 1,600–2,500 m
Assessor: FLH
Refs: [198, 199]

Ocotea sauroderma Lorea-Hern.
EN B1ab(iii)
Mexico (OAX)
Small or medium-sized tree, 15–25 m tall. This species is only known from the hyper-humid Northern Oaxaca mountain range.
Elevational range: 1,650–2,000 m
Assessor: FLH
Ref: [198]

Ocotea sinuata (Mez) Rohwer
VU B1ab(iii)
Mexico (OAX, CHS), Guatemala, Belize, El Salvador, Nicaragua, Costa Rica, Panama
Medium-sized tree, 10–20 m tall. This species is rare in cloud forest and mostly occurs in oak forest, tropical rainforest and tropical semi-evergreen forest. **Synonym:** *Nectandra sinuata* Mez. **Common names:** *aguacatillo, tepeaguacate*.
Elevational range: 180–1,400 m
Assessor: FLH
Ref: [198]

Ocotea standleyi C.K.Allen
EN B1ab(iii)
Mexico (CHS), Guatemala
Medium-sized to large tree, 10–25 m tall. At least in Mexico, this taxon is a cloud forest specialist. Its habitat is severely threatened by land-use change. **Synonym:** *Phoebe macrophylla* Standl. & Steyerm.
Elevational range: (800)1,500–2,100 m
Assessor: FLH
Ref: [198]

Ocotea subalata Lundell
EX
Mexico (CHS)
The information available for this species, a narrowly endemic taxon from southern Mexico, clearly indicates that it was restricted to cloud forest. The species is only known from two collections that come from a region that has been heavily deforested. Thereafter, it has not been collected for the last 60 years, hence it is presumably extinct.
Elevational range: 2,100–2,500 m
Assessor: FLH
Ref: [198]

Ocotea tonii (Lundell) van der Werff
EN B1ab(iii)
Mexico (GRO, OAX, CHS)
Small tree, 4–10 m tall. This is an occasional element in the cloud forest flora as it mostly occurs in tropical semi-evergreen forest and tropical rainforest. The taxon is endemic to Mexico where it is geographically restricted to the southern portions of the country. This is a rare species that is represented by few collections in herbaria. In Chiapas at least its habitat is severely threatened. **Synonym:** *Nectandra tonii* Lundell.
Elevational range: (300) 800–1,600 m
Assessor: FLH
Refs: [198, 207]

Ocotea truncata Lundell
EN B1ab(iii)
Mexico (CHS), Guatemala
Small tree, 3–12 m tall. In Mexico this taxon is clearly a cloud forest specialist. Its habitat is severely threatened.
Elevational range: 750–1,300 m
Assessor: FLH
Ref: [198]

Ocotea zoque Lorea-Hern.
EN B2ab(iii)
Mexico (OAX)
A medium-sized tree, up to 20 m tall. This taxon is narrowly endemic to Mexico and is restricted to cloud forest.
Elevational range: c. 1,650 m
Assessor: FLH
Refs: [198, 199]

Persea albida Kosterm.
EN B1ab(iii)
Mexico (OAX, CHS), Guatemala, Honduras, Costa Rica
Medium-sized to large tree, 12–20 (30) m tall. The available information indicates that this taxon is restricted to cloud forest, at least in Mexico. In Chiapas its habitat is severely threatened. **Synonym:** *Persea guatemalensis* Lundell.
Elevational range: 1,200–2,100 m
Assessor: FLH
Ref: [198]

Persea americana Mill.
EN B1ab(iii)
Mexico (VER, GRO, OAX, CHS), Guatemala
Medium-sized to large tree, 10–20 (rarely to more than 30) m tall. A widely cultivated species, its wild populations normally occur in cloud forest, in humid pine-oak forest and oak forest, as well as in tropical semi-evergreen forest and (apparently) in tropical rainforest. This species is cultivated throughout tropical America, where different cultivars have been developed over centuries, yet most of the habitat of the very scattered wild populations is severely threatened. In addition to Guatemala, wild populations may occur elsewhere in Central America. The fruit can be collected under the tree shortly after it falls and seedlings can be readily produced in nurseries. The seeds should be washed and then allowed to dry for 12–24 hours. Germination is high (70–95%) if the seeds are sown to half of their length (3–5 cm deep) in humid and organically-rich soil, which is exposed to intermediate light. Seeds must be germinated shortly after being cleaned as they cannot be stored. **Synonyms:** *Persea drymifolia* Cham. & Schltdl., *P. floccosa* Mez. **Common names:** *aguacate, aguacate oloroso, aguacatillo, on, tsits-mut.* The wood is white and soft and is occasionally used to make poles and boards for building, and less frequently as a source of firewood or to produce charcoal. The role of improved cultivars in both Mexican and international cuisine is world-renowned but the fruits from wild populations are rarely eaten.
Elevational range: 1,300–2,500 m (of wild populations)
Assessors: FLH, MGE
Refs: [4, 43, 115, 124, 126, 135, 198, 207, 228, 238, 305, 309, 312, 335, 417, 431, 445]

Persea chamissonis Mez
VU A2c
Mexico (HGO, VER, PUE, OAX)
A shrub or more frequently a tree, 5–15 m tall. This is a rare element of the cloud forest flora as it frequently grows in oak forest and pine-oak forest.
Elevational range: 1,650–2,600 m
Assessor: FLH
Refs: [4, 198]

Persea chrysantha Lorea-Hern.
CR B1ab(iii)
Mexico (GRO)
Small tree, 7–18 m tall. This little known Mexican endemic species is restricted to cloud forest. The taxon is known only through two collections from the same locality.
Elevational range: c. 2,200 m
Assessor: FLH
Ref: [199]

Persea donnell-smithii Mez
VU B1ab(iii)
Mexico (OAX, CHS), Guatemala, Honduras, Nicaragua, Costa Rica
Small to medium-sized tree, 6–15 (20) m tall. This species occurs mostly in oak forest or pine forest and infrequently in cloud forest. Germination is high (80–90%) if the seeds are sown at 2–3 cm deep in a humid and organically-rich soil bed exposed to intermediate illumination. Seeds must be germinated shortly after being cleaned as they cannot be stored. **Common name:** *aguacatillo*. The fruit is edible, though on a small scale. It is used as a shade tree in shade-grown coffee plantations.
Elevational range: (900) 1,250–2,200 m
Assessors: FLH, MGE
Refs: [198, 309, 417]

Persea liebmannii Mez
NT
Mexico (SON, CHI, TAM, DGO, SLP, JAL, QRO, VER, PUE, OAX, CHS), Guatemala
Small to medium-sized tree, 3–15 m tall. This species grows frequently in cloud forest but can also be found in oak forest, tropical semi-evergreen forest and tropical rainforest. The concept of *P. liebmannii* used here includes *P. podadenia* S.F.Blake, both the typical variety and *P. podadenia* var. *glabriramea* I.M.Johnst.; further studies may prove that these taxa are indeed distinct species, which would result in a range reduction of *P. liebmannii* to Oaxaca, Chiapas, and Guatemala, Should this be the case, the IUCN category of this taxon would have to be changed to EN as its habitat there is severely threatened. **Synonym:** *Persea flavifolia* Lundell.
Elevational range: (400) 700–2,300 (2,700) m
Assessor: FLH
Refs: [31, 58, 137, 198, 295, 417]

Persea longipes (Schltdl.) Meisn.
EN B1ab(iii)
Mexico (VER, CHS)
Medium-sized tree, 10–20 m tall. In addition to cloud forest, this species also occurs in oak forest and tropical semi-evergreen forest. Endemic to Mexico. Its habitat is severely threatened.
Elevational range: 650–1,400 m
Assessor: FLH
Ref: [198]

Persea obscura Lorea-Hern.
EN B2ab(iii)
Mexico (OAX)
Medium-sized tree, 12–20 m tall. This species is a strict cloud forest specialist and narrowly endemic to Mexico where it is known only from Oaxaca state.
Elevational range: 1,400–1,700 m
Assessor: FLH
Refs: [198, 199]

Persea pallescens (Mez) Lorea-Hern.
EN B1ab(iii)
Mexico (SLP, QRO, HGO, VER, PUE, OAX), Guatemala
Small to medium-sized tree, 4–8 (15) m tall. At least in Mexico, this species is restricted to cloud forest. In most of its distribution its habitat is severely threatened. **Synonyms:** *Persea parvifolia* L.O.Williams, *Phoebe pallescens* Mez.
Elevational range: 1,650–1,900 m
Assessor: FLH
Refs: [198, 200]

Persea rufescens Lundell
EN B1ab(iii)
Mexico (OAX, CHS)
Small to medium-sized tree, 6–18 m tall. This species is endemic to southern Mexico and a strict cloud forest specialist. At least in Chiapas, its habitat is severely threatened.
Elevational range: 1,500–2,550 m
Assessor: FLH
Refs: [198, 417, 431]

Persea schiedeana Nees
VU B1ab(iii)
Mexico (VER, OAX, CHS), Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia
Small to medium-sized tree, 4–15 (25) m tall. This typical cloud forest species also occurs in tropical rainforest and tropical semi-evergreen forest. Cultivated for its edible fruits in places outside of its native range. Germination is relatively high (80%) if the seeds are sown at 2–3 cm deep in a humid and organically-rich soil bed exposed to intermediate illumination; seeds must be germinated shortly after being cleaned as they cannot be stored.
Common names: *aguacatillo, chinín, chinine, chiníni, pagua, ziwtez.*
Elevational range: (250) 800–1,600 (2,300) m
Assessors: FLH, MGE
Refs: [198, 305, 309, 417, 445]

MAGNOLIACEAE

Magnolia dealbata Zucc.
EN B1ab(i,iii)
Mexico (NL, TAM, SLP, QRO, HGO, VER, PUE, OAX)
A cloud forest species but also in pine-oak forest. It regenerates in open areas and its regeneration has been studied in the wild.
Common names: *elosúchil, eloxóchitl, guía-lachi, guie-zehe, quije-zehe, yo-zaba.*
Elevational range: 1,500–1,820 m
Assessor: ILV
Refs: [58, 66, 353, 354, 426, 430, 438, 445]

Magnolia guerrerensis J.Jiménez Ram., K.Vega & Cruz Durán
EN B1ab(iii)+2ab(iii)
Mexico (GRO)
This Mexican endemic and recently described species is only known from cloud forest in Guerrero. It was not listed in the Red List of *Magnolia* by Cicuzza *et al*. [66].
Elevational range: 1,950–2,400 m
Assessor: ILV
Ref: [179]

Magnolia iltisiana A.Vázquez
VU B1ab(i,iii)
Mexico (JAL, COL, MIC, GRO)
A large tree, up to 20–40 (45) m tall and trunk up to 60–150 cm in diameter. Locally abundant in moist subdeciduous cloud forest, mostly in ravines. Known from a few localities, mostly in Jalisco with a disjunct population in Guerrero. It has several mechanisms of seed dormancy; a successful treatment includes removal of the seed pulp cover after maceration. The tree is used as a source of firewood and the timber is valued for furniture. Some uses in folk medicine are reported, thought to strengthen the heart as a remedy for high blood pressure. **Common names:** *ahuatoso, laurel, magnolia, yoloxóchitl.*
Elevational range: 800–2,440 m
Assessors: ILV, MGE
Refs: [66, 76, 278, 348–351, 356, 357, 426, 428, 438]

Magnolia krusei J.Jiménez Ram.& Cruz Durán
EN B2ab(i,ii,iii)
Mexico (GRO)
A cloud forest species mostly known from only one locality in central Guerrero (also at the limit with the state of Oaxaca; J. Jiménez Ramírez, pers. com.). All vouchers collected within an area of 11 km radius. Used for timber and handicrafts. Conservation measures may be complicated because of cultivation of illegal crops in the vicinity of wild populations.
Elevational range: c. 1,150 m
Assessor: ILV
Refs: [66, 181]

Magnolia mexicana DC.
VU B2ab(i,ii,iii)
Mexico (JAL, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala
A large tree, up to 30 m tall and with trunk up to 100 cm in diameter. A rare species not restricted to cloud forest but also occurring in other old-growth forest formations at lower elevations. **Synonym:** *Talauma mexicana* (DC.) G.Don. **Common names:** *anonillo, cocté, flor de corazón, flor del corazón, yo-lachi, guía-lacha-yati, quije-lechiyate, holmashté, jolmashté, hualhua, laurel tulipán, tzocoijoyó, tzucoijoyó, chocoijoyo, chocoijoyó, yolosúchil, yolosóchitl, yoloxóchitl.* There are reports of its use for flavouring chocolate and other food, and on medicinal uses of bark to treat fever. Flowers are highly valued as ornamental, for their scent and medicinally as an antispasmodic. The high quality timber has industrial uses.
Elevational range: 150-2,000 m
Assessors: ILV, MGE
Refs: [114, 173, 241, 279, 426, 438]

Magnolia pacifica A.Vázquez subsp. ***pacifica***
EN B1ab(i,iii)
Mexico (NAY, JAL)
Medium-sized tree, up to 15–25 m tall and trunk up to 40–80 cm in diameter. This species is found in cloud forest but also occurs in pine-oak forest, tropical evergreen forest and tropical semi-evergreen forest. Frequently on steep slopes and ravines. It may be locally abundant. Only known from a few localities from southern Nayarit (Acaponeta) to southwestern Jalisco (the San Sebastián-Talpa de Allende-Cuale range). **Common names:** *corpus, magnolia*.
Elevational range: 790–1,900 (2,250) m
Assessors: ILV, MGE
Refs: [66, 426]

Magnolia pacifica A.Vázquez subsp. ***pugana*** Iltis & A.Vázquez
CR B1ab(i,iii)
Mexico (ZAC, JAL)
Medium-sized tree, 15–25 m tall and with a trunk up to 40–80 cm in diameter. This species occurs in cloud forest but more frequently in more seasonal formations at lower elevations; in deep ravines with forested margins along permanent streams. A species with a very restricted distribution. **Synonym:** *Magnolia pugana* (Iltis & A.Vázquez) A.Vázquez & Carvajal. **Common names:** *almacasusco, magnolia, manolia*.
Elevational range: 1,300–1,600 m
Assessors: ILV, MGE
Refs: [66, 426, 429]

Magnolia schiedeana Schltdl.
EN B2ab(ii,iii)
Mexico (HGO, VER, MIC, OAX)
A species found in cloud forest in the eastern states of Mexico; records from the Pacific region are incorrect identifications and actually represent either *Magnolia guerrerensis* J.Jiménez Ram., K.Vega & Cruz Durán or *Magnolia vazquezii* Cruz Durán & K.Vega. Recent genetic analyses indicate a high variation and degree of population differentiation in central Veracruz. **Common names:** *corpus, elo-xóchitl, magnolia, palo de cacique, quie-lachi, yaga-zaha, yolosúchil.*
Elevational range: 1,230–2,250 (2,580) m
Assessors: ILV, MGE
Refs: [4, 58, 66, 76, 79, 126, 179, 265, 335, 426, 445]

Magnolia sharpii Miranda
EN B1ab(i,iii); C2a(i)
Mexico (CHS)
A large tree, up to 25 m tall and with a trunk more than 50 cm in diameter. Found in cloud forest, moist oak forest and pine-oak forest. Only known from a few localities in the central highlands and northern mountains of Chiapas where severe deforestation is still occurring. Published data on the area of potential forest distribution with *M. sharpii* (Cicuzza *et al*. [66]) are highly

misleading; the area of occupancy is very likely to be far less than this. Recent genetic analyses with isozymes indicate a large variation within its populations and a low degree of genetic differentiation between them. Other results suggest inbreeding in its populations. This species regenerates well in moderately open stands, and can be propagated from seed to allow population restoration through the planting of seedlings and saplings. Seed viability decreases after three months of storage. **Common names:** *magnolia, tajchac, tojchó*.
Elevational range: 1,700–2,400 m
Assessors: ILV, NRM, MGE
Refs: [66, 124, 133–136, 265, 302, 305, 306, 308, 309]

Magnolia tamaulipana Vázq.Avila
EN B1ab(i,iii)
Mexico (NL, TAM)
A cloud forest species known mostly from southern Tamaulipas.
Elevational range: 1,180–1,500 m
Assessors: ILV, MGE
Refs: [66, 137, 426]

Magnolia vazquezii Cruz Durán & K.Vega
EN B2ab(i,ii,iii)
Mexico (GRO)
A cloud forest species with a very restricted distribution in Guerrero, near its boundary with Oaxaca. It resembles *Magnolia schiedeana* Schltdl. but it differs in a number of macroscopic characters.
Elevational range: 2,150–2,350 m
Assessors: ILV, MGE
Ref: [75]

Magnolia yoroconte Dandy
VU B1ab(i,iii)
Mexico (VER, CHS), Guatemala, Belize, Honduras
A large tree not restricted to cloud forest but also occurs in mixed forest at lower elevations.
Elevational range: 800–2,120 m
Assessors: ILV, MGE
Refs: [66, 426]

Malvaceae

Chiranthodendron pentadactylon Larreat.
VU A2cd
Mexico (GRO, OAX, CHS), Guatemala
A large tree, up to 30 m tall and 200 cm in diameter. Although it is a typical cloud forest tree, this species is not restricted to this vegetation type as it also occurs in oak and pine-oak forests. Specimens have been reported from a number of other states in central Mexico but they are most probably from cultivated trees. Restoring populations with planted seedlings and saplings seems possible. Seeds must be collected from slightly open fruits on the distal parts of the branches of the tree. The seeds may remain viable for up to seven months at 4°C and less than 12% relative humidity. Seedlings can be obtained from seeds placed on damp soil beds with a thin litter cover. **Synonyms:** *Cheirostemon platanoides* Bonpl., *Chiranthodendron platanoides* (Bonpl.) Baill. **Common names:** *árbol de la manita, árbol de las manitas, camxóchitl, canaco, canague, huiahuonahua, lechillo, li-ma-ne-shmu, macpalxochicuáhuitl, macpalxóchitl, mano de dragón, mano de león, mapasúchil, mora, palo de mecate, palo liso, teyacua, teyeque.* Flowers used as a remedy for some heart diseases in folk medicine, bark used as rope and leaves used to wrap food. A tree with religious significance to pre-Columbian Aztec people. A drawing of the flowering branch of this species has been the iconic symbol of the Botanical Society of Mexico since the early 1940s.
Elevational range: 1,830–2,740 m
Assessors: SAC, NRM, MGE, FLH, JAM
Refs: [96, 115, 134, 180, 238, 239, 241, 274, 279, 307–309, 403, 438]

Hampea breedlovei Fryxell
CR A1b
Mexico (CHS)
A small dioecious tree species, up to 7 m tall. Found in cloud forest, endemic to a small number of localities in the Northern Mountains region of Chiapas.
Elevational range: 1,700–1,900 m
Assessors: NRM, MGE
Ref: [120]

Hampea integerrima Schltdl.
NT
Mexico (VER, OAX, TAB)
A small tree marginal to cloud forest that also occurs in forest formations at lower elevations. **Common names:** *jonote blanco, jonote colorado, majagua, majagua de playa, tsutsocoshunuc, tsutsucoshunuc.*
Elevational range: 950–1,700 m
Assessors: NRM, MGE
Refs: [121, 209]

Hampea montebellensis Fryxell
EN A3c; B2ab(iii)
Mexico (CHS)
Presumably dioecious tree, up to 20 m tall. Endemic to a small region in Chiapas with montane rainforest and pine-oak-*Liquidambar* forest.
Elevational range: 1,100–1,500 m
Assessor: NRM
Ref: [120]

Mortoniodendron ruizii Miranda
CR B2ab(ii,iii)
Mexico (CHS)
Small tree or large shrub. Known only from the cloud forest in the Northern Mountains of Chiapas. Most of the areas where the species has been recorded have now been severely deforested (over 80% in recent decades). **Synonym:** *M. palaciosii* Miranda, also from Chiapas and Veracruz; yet this is unlikely because the latter occurs at considerably lower elevations. This species appears to be ill-defined taxonomically. Described in 1956 by Faustino Miranda, there are no other records since this date in *TROPICOS*. To the best of current knowledge it is a genuine species. **Common name:** *cedrillo*.
Elevational range: 800–1,900 m
Assessors: NRM, MGE, Expert Group May 2007
Refs: [29, 242, 314, 362]

Tilia americana L. var. ***mexicana*** (Schltdl.) Hardin
VU A4c
Mexico (SON, CHI, COA, NL, TAM, SIN, DGO, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, CHS)
A large tree, up to 25 m tall or higher. Not only found in cloud forest but also in oak forest, pine-oak forest, tropical dry forest and tropical evergreen forest. Not very abundant locally but widespread in Mexico. **Synonyms:** *Tilia houghii* Rose, *T. mexicana* Schltdl., *T. pringlei* Rose. **Common names:** *cirimo, sirimo, tila, tilia, tirimo, tzirimo, tzirimu, yaca, yaco.*
Elevational range: 1,100–2,500 m
Assessors: ILV, JAM, SVA, MGE
Refs: [2, 4, 58, 76, 79, 115, 137, 166, 180, 229, 277, 300, 301, 348, 356, 357, 428, 429, 438]

MELASTOMATACEAE

Blakea purpusii Brandegee
CR A4c; B1ab(iii)
Mexico (CHS), Guatemala
Tree or shrub, epiphytic, 6–18 m tall. This cloud forest species extends its presence down into tropical semi-evergreen forest and tropical rainforest. This taxon has a highly restricted distribution on the slopes of the Tacaná volcano at the Mexico-Guatemala border.
Elevational range: 1,300–2,700 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 377, 383]

Conostegia arborea (Schltdl.) Steud.
EN B1ab(iii)
Mexico (PUE, VER)
Shrub or small tree, up to 8 m tall. A common species in undisturbed forest. Mostly found in cloud forest but occasionally in tropical semi-evergreen forest.
Elevational range: 1,100–1,700 m
Assessor: FLH
Ref: [8]

Conostegia volcanalis Standl. & Steyerm.
VU B2ab(iii)
Mexico (JAL, GRO, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Panama, Costa Rica(?)
Small to medium-sized tree, 3–20 m tall. Found in cloud forest, tropical semi-evergreen forest and tropical rainforest. Specimens from Costa Rica are taxonomically uncertain. Closely related to *Conostegia arborea* (Schltdl.) Steud. **Synonym:** *Conostegia orbeliana* Almeda. **Common name:** *uva*.
Elevational range: 1,100–2,200 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 79, 96, 207, 209, 356, 357, 363, 377, 429, 444]

Graffenrieda galeottii (Naudin) L.O.Williams
VU B2ab(iii)
Mexico (OAX, CHS), Guatemala, Belize, Nicaragua, Costa Rica, Panama, Colombia, Ecuador
Small to medium-sized tree, 3–16 m tall. This cloud forest species also occurs in tropical rainforest and is not uncommon in disturbed vegetation. **Synonym:** *Calyptrella cycliophylla* Donn.Sm.
Elevational range: 0–1,200 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 383]

Meriania macrophylla (Benth.) Triana subsp. ***macrophylla***
EN B1ab(iii)+2ab(iii)
Mexico (CHS), Guatemala, Costa Rica, Panama, Colombia, Venezuela
Small to medium-sized tree, 6–21 m tall. A species restricted to cloud forest. **Synonym:** *Conostegia excelsa* Pittier.
Elevational range: 1,200–2,600 m
Assessors: GIM, JAM, GCT, RDS
Ref: [8]

Miconia chinantlana (Naudin) Almeda
CR A4c; B1ab(iii)
Mexico (OAX, CHS), Guatemala
Shrub and probably small tree, 1.5–4 m tall. Found in cloud forest and tropical rainforest. Although this taxon was first described more than 150 years ago, in the *TROPICOS* digital database only two specimens from Mexico are recorded. **Synonyms:** *Clidemia chinantlana* (Naudin) Triana, *Miconia echinoidea* Standl. & Steyerm., *Staphidium chinantlanum* Naudin. This species is closely related to *Miconia globulifera* Naudin.
Elevational range: 1,200–1,900 m
Assessors: GIM, JAM, GCT, RDS
Refs: [7, 8]

Miconia donaeana Naudin
NT
Mexico (GRO), Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Peru
Small tree, 2–8 m tall. This species occurs in cloud forest, tropical semi-evergreen forest and tropical rainforest, frequently in riparian habitats. With a notably disjunct distribution, this species is rare in Mexico but more common in Central America. **Synonyms:** *Chitonia* caudata D.Don non *Miconia caudata* (Bonpl.) DC., *M. leucantha* Gleason.
Elevational range: 30–1,800 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 86, 207]

Miconia elata (Sw.) DC.
NT
Mexico (VER, CHS), Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, French Guiana, Ecuador, Peru, Bolivia, Brazil, Cuba, Jamaica
Small tree, 4–12 m tall. Only found in lower limits of cloud forest in Mexico and Ecuador, otherwise the species is found in tropical rainforest and tropical semi-evergreen forest. Often confused with *Miconia punctata* (Desr.) D.Don ex DC.
Elevational range: 20–1,300 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 377]

Miconia fulvostellata L.O.Williams
VU B1ab(iii)+2ab(iii)
Mexico (VER, CHS), Guatemala, Belize, Nicaragua
Shrub or small tree, 2–10 m tall. This species occurs both in cloud forest and in tropical rainforest.
Elevational range: 200–1,300 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 377]

Miconia hemenostigma Naudin
EN A4c; B1ab(iii)
Mexico (HGO, VER, MEX, GRO, OAX, CHS), Guatemala, Honduras
Shrub or small tree, 1–9 m tall. In addition to cloud forest this species is also found in pine forest, oak forest and pine-oak forest.
Elevational range: 1,800–3,200 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 86, 302, 383]

Miconia heterothrix Gleason & Wurdack
CR A4c; B1ab(iii)
Mexico (MIC, GRO)
Shrub or small tree, up to 4 m tall. A typical but rare cloud forest and pine forest species.
Elevational range: 1,600–1,800 m
Assessors: GIM, JAM, GCT, RDS
Ref: [86]

Miconia lonchophylla Naudin
VU A4c
Mexico (VER, PUE, OAX, CHS), Honduras, Costa Rica, Panama, Colombia, Venezuela
Shrub or small tree, 1–6 m tall (up to 20 m in Venezuela). Besides cloud forest this species also occurs in tropical evergreen forest. **Synonym:** *Miconia sylvicola* Pittier.
Elevational range: 600–1,700 (2,700) m
Assessors: GIM, JAM, GCT, RDS
Ref: [8]

Miconia matthaei Naudin
NT
Mexico (VER, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Colombia, Venezuela, Guyana, Ecuador, Peru, Brazil, Bolivia, Cuba, Jamaica, Lesser Antilles
Shrub or small to medium-sized tree, 3–15 m tall. Marginal in cloud forest, mostly occurs in tropical rainforest and tropical semi-evergreen forest.
Elevational range: 0–1,200 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 383]

Miconia mexicana (Bonpl.) Naudin
VU A4c; B1ab(iii)
Mexico (JAL, HGO, PUE, VER, GRO, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica
Shrub or small tree, up to 5 m tall. Not restricted to cloud forest, this species also occurs in pine forest, pine-oak forest and tropical semi-evergreen forest. **Synonyms:** *Conostegia mexicana* (Bonpl.) Ser. ex DC., *Melastoma mexicanum* Bonpl., *Miconia humilis* Cogn., *M. lauriformis* Naudin, *M. purpusii* Brandegee, *M. tococoides* Naudin, *M. tunicata* (Bonpl.) Naudin.
Elevational range: 700–2,800 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 86, 126, 207, 229, 295, 383]

Miconia militis Wurdack
CR A4c
Mexico (GRO, OAX)
Shrub or small tree, 1.5–7 m tall. Although occurring in cloud forest, this species is also found in oak forest, pine forest and pine-oak forest.
Elevational range: 2,000–3,100 m
Assessors: GIM, JAM, GCT, RDS
Refs: [86, 96, 115]

Miconia oligotricha (DC.) Naudin
NT
Mexico (HGO, VER, PUE, GRO, OAX), Guatemala, Honduras, Costa Rica
Shrub or small understorey tree, 2–4 m tall. Not restricted to cloud forest, this species also occurs in pine forest, pine-oak forest, and tropical semi-evergreen forest.
Elevational range: 1,200–3,200 m
Assessors: GIM, JAM, GCT, RDS
Refs: [4, 126, 229, 236, 383]

Miconia teotepecensis de Santiago
CR A4c
Mexico (GRO, OAX)
Shrub or small tree, 1–5 m tall. Mostly a cloud forest species, this taxon also occurs occasionally in pine-oak forest and tropical semi-evergreen forest.
Elevational range: 1,000–2,000 m
Assessors: GIM, JAM, GCT, RDS
Refs: [87, 207]

Stanmarkia medialis (Standl. & Steyerm.) Almeda
CR A4c; B1ab(iii)
Mexico (CHS), Guatemala
Shrub or tree, up to 4 m tall. A cloud forest specialist. The geographical distribution of this species is highly restricted to the Mexico–Guatemala border.
Elevational range: 1,600–3,000 m
Assessors: GIM, JAM, GCT, RDS
Ref: [8]

Topobea laevigata (D.Don.) Naudin
EN A4c;B2ab(iii)
Mexico (VER, PUE, OAX, CHS), Guatemala, Belize
Epiphytic shrub or tree, 3–12 m tall. In addition to cloud forest this species is also found in pine-oak forest and tropical rainforest.
Elevational range: 150–1,850 m
Assessors: GIM, JAM, GCT, RDS
Ref: [8]

Topobea maurofernandeziana Cogn.
VU A4c; B1ab(iii)
Mexico (GRO, OAX), Nicaragua, Costa Rica, Panama
Epiphytic, hemi-epiphytic and sometimes rupicolous shrub or small tree, 2–5 m tall. Mostly found in cloud forest, also occurs frequently in riparian habitats of other forest formations. **Synonyms:** *Blakea intercepta* Gleason, *Topobaea durandiana* Cogn. This species is closely related to *Topobaea watsonii* Cogn.
Elevational range: 0–1,600 m
Assessors: GIM, JAM, GCT, RDS
Refs: [5, 8, 207]

MELIACEAE

Guarea glabra Vahl
NT
Mexico (SIN, NAY, JAL, VER, MOR, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Suriname, French Guiana, Ecuador, Peru, Brazil, Lesser Antilles
Dioecious medium-sized tree, 6–10 (25) m tall. Not restricted to cloud forest, this species also occurs in tropical evergreen forest, tropical dry forests and pine-oak forest, often in riparian habitats. This is apparently the most variable species in the genus, and it is closely related to *G. guidonia* (L.) Sleumer. **Synonyms:** *Guarea excelsa* Kunth, *G. filiformis* C.DC., *G. filiformis* C.DC. var. *pallida* C.DC., *G. glabrescens* (Hook. & Arn.) S.F.Blake, *G. heterophylla* S.F.Blake, *G. matudae* Lundell, *G. makrinii* S.F.Blake, *G. obtusata* S.F.Blake, *G. palmeri* Rose ex C.DC., *G. polyantha* S.F.Blake, *G. purpurea* C.DC., *G. rovirosae* C.DC., *G. virescens* C.DC. **Common names:** *bejuco, bejuco de blanco, bejuco colorado, bolero, cedrillo, chililllo, cagal, gaga, palo de bejuco, remo, trompillo de arenal, trompillo blanco, trompillo de monte, trompillo de playa, zapotillo.* Used locally for timber.
Elevational range: 0–1,800 (3,000) m
Assessors: GIM, GCT, LSV, RPL
Refs: [79, 115, 172, 173, 180, 207, 236, 278, 280, 333, 351, 356, 357, 363]

MONIMIACEAE

Mollinedia pallida Lundell
EN B1ab(iii)
Mexico (CHS), Guatemala
Small tree, 4–8 (12) m tall. A typical but scarce cloud forest species. **Synonyms:** *Mollinedia flavida* Lundell, *M. pauciflora* Lundell.
Elevational range: 600–1,900 m
Assessor: FLH
Ref: [29]

Mollinedia viridiflora Tul.
VU B1ab(iii)
Mexico (VER, PUE, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Dioecious small tree, 3–10 m tall. A typical cloud forest species also present in tropical semi-evergreen forest and tropical rainforest. **Synonyms:** *Mollinedia mexicana* Perkins, *M. nigrescens* Tul., *M. orizabae* Perkins.
Elevational range: 100–2,700 m
Assessor: FLH
Refs: [174, 431]

MORACEAE

Ficus apollinaris Dugand
VU B1ab(iii)+2ab(iii)
Mexico (VER, PUE, OAX, CHS), Guatemala, Belize, Costa Rica, Colombia, Venezuela, Ecuador, Peru, Bolivia
Medium-sized to large tree, (8) 15–35 m tall. Rare in cloud forest, this species mostly occurs in tropical rainforest and tropical semi-evergreen forest, particularly in riparian habitats. **Synonym:** *Ficus petenensis* Lundell. **Common names:** *amate, amate blanco, amate hoja menuda, amatillo, amatillo lechero, jun, ojochín blanco*. Tall individuals are maintained in pastures as shade trees and their syconia serve as fodder for cattle.
Elevational range: 50–700 (1,150) m
Assessors: GIM, GCT
Refs: [174, 175, 359]

Ficus colubrinae Standl.
VU B1ab(iii)+2ab(iii)
Mexico (VER, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia
Epiphytic or strangler tree, 10–30 m tall. Present in cloud forest, oak forest and pine forest but more abundant in tropical rainforest, particularly in riparian habitats. **Common names:** *amate capulín, matapalo, tzajal mutut.* Used as fodder and shade tree in pastures for cattle.
Elevational range: 130–1,700 m
Assessors: GIM, GCT
Refs: [174, 359, 401]

Ficus lapathifolia (Liebm.) Miq.
EN B1ab(ii)
Mexico (VER, PUE, GRO, OAX, CHS)
Large tree, up to 40 m tall. Not frequent in cloud forest but more common in tropical rainforest, particularly in riparian habitats. **Common names:** *amacuautl, amate, amate blanco, amate caballo, amate de hoja ancha, higo, higo durazno, higuera, huichilama*.
Elevational range: 30–1,800 m
Assessors: GIM, GCT
Refs: [175, 359]

Ficus membranacea C.Wright
VU B1ab(iii)
Mexico (SIN, ZAC, NAY, JAL, COL, MIC, MEX, MOR, OAX), Colombia, Ecuador, Peru, Cuba, Jamaica
Hemi-epiphytic or rupicolous tree, 10–30 m tall. Marginal species in cloud forest and temperate vegetation such as conifer forest and oak forest, it is more typical of tropical dry forest, particularly in riparian habitats. **Common names:** *amate, amate blanco, amate fruto rojo, higuera, matapalo, saiba, tescalama, tezcalama, tiscalama, tlaligo, zalate*.
Elevational range: 25–1,950 m
Assessors: GIM, GCT
Refs: [21, 101, 132, 292]

Ficus rzedowskiana Carvajal & Cuevas-Figueroa
EN B1ab(ii)
Mexico (SLP, QRO, HGO, VER, PUE, GRO, OAX, CHS)
Hemi-epiphytic or rupicolous tree, up to 40 m tall. This Mexican endemic species is marginal in cloud forest and oak forest, and it occurs more frequently in tropical rainforest and riparian habitats. **Common names:** *amate, amate capulín, chalamal, higuera, higuerón, injerto, matapalo, suja*. The fruit is sometimes eaten and occasionally people cut the branches as fodder for cattle.
Elevational range: 100–700 (1,300) m
Assessors: GIM, GCT
Refs: [59]

Pseudolmedia spuria (Sw.) Griseb.
VU B1ab(ii)
Mexico (CHS, CAM), Guatemala, Belize, Nicaragua, Costa Rica, Panama, Jamaica, Dominican Republic
Dioecious medium-sized tree, 6–20 m tall. A rare species in cloud forest and tropical rainforest. **Common names:** *asta amarilla, asta maría*.
Elevational range: 300–1,000 (1,900) m
Assessors: GIM, GCT
Refs: [17, 333, 389]

Trophis cuspidata Lundell
VU B1ab(ii,iii)
Mexico (OAX, CHS), Guatemala
Dioecious tree, 3–12 tall. Present in cloud forest and oak forest, particularly in riparian habitats. Related to *Trophis mexicana* (Liebm.) Bureau. **Common name:** *aretillo*.
Elevational range: 1,600–2,600 m
Assessors: GIM, GCT
Refs: [17, 363]

Trophis noraminervae Cuevas & Carvajal
EN B2ab(ii,iii)
Mexico (JAL, COL)
Dioecious tree, 6–12 m tall. Found in cloud forest and also occurs in riparian habitats in other forest types in the Sierra de Manantlán Biosphere Reserve. This species is closely related with *Trophis cuspidata* Lundell. **Common name:** *ramoncillo*. The foliage is sometimes used as fodder.
Elevational range: 1,650–1,800 m
Assessors: GIM, GCT
Refs: [77, 79, 81, 278, 356]

MYRSINACEAE

Ardisia bracteosa A.DC.
NT
Mexico (VER, OAX, CHS, CAM), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Jamaica
Small tree, 3–8 (12) m tall. Rare in cloud forest, this species is more typical of tropical semi-evergreen forest. **Synonyms:** *Ardisia densiflora* Krug et Urb., *A. esculenta* Pav. ex A.DC., *A. gentlei* Lundell, *A. spicigera* Donn.Sm., *Icacorea spicigera* (Donn.Sm.) Standl., *Tinus bracteosa* (A.DC.) Kuntze.
Elevational range: 1,300–1,400 m
Assessor: FLH
Ref: [321]

Ardisia breedlovei Lundell
EN B1ab(ii)
Mexico (CHS)
Tree, 8–25 m tall. This species occurs in cloud forest and tropical rainforest. Apparently endemic to Mexico.
Elevational range: 550–1,700 m
Assessor: FLH
Ref: [215]

Ardisia liebmannii Oerst.
VU A2c
Mexico (HGO, VER, PUE, OAX, CHS)
Rarely a small tree, 3–6 m tall, mostly a shrub. Not frequently found in cloud forest, usually occurs in tropical semi-evergreen forest, tropical rainforest and pine-oak forest. Two subspecies are recognized: *Ardisia liebmannii* subsp. *jalapensis* (Lundell) Ricketson & Pipoly, and *A. liebmannii* subsp. *liebmannii*, both reaching the lower cloud forest on the Sierra Madre Oriental. **Synonyms:** *Amatlania crenipetala* (Mez) Lundell, *A. elliptica* Lundell, *A. jalapensis* (Lundell) Lundell, *A. liebmannii* (Oerst.) Lundell, *Ardisia crenipetala* Mez, *A. elliptifolia* Lundell, *A. jalapensis* Lundell, *A. rekoi* Lundell, *Icacorea liebmannii* (Oerst.) Standl.
Elevational range: 550–1,700 m
Assessor: FLH
Ref: [320]

Ardisia mexicana Lundell subsp. ***siltepecana*** (Lundell) Pipoly & Ricketson
EN B1ab(iii)
Mexico (CHS)
Small tree, up to 5 m tall. Occasionally found in cloud forest, more common in tropical dry forest. **Synonyms:** *Ardisia siltepecana* Lundell, *Icacorea siltepecana* (Lundell) Lundell.
Elevational range: 200–1,600 m
Assessor: FLH
Refs: [294, 363]

Ardisia nigrescens Oerst. subsp. ***nigrescens***
VU A2c
Mexico (SLP, VER, PUE, OAX, TAB, CHS), Nicaragua
Small tree, up to 5 m tall. Rare in cloud forest, this is a frequent taxon in tropical rainforest and tropical semi-evergreen forest. **Synonyms:** *Icacorea nigrescens* (Oerst.) Standl., *Oerstedianthus nigrescens* (Oerst.) Lundell.
Elevational range: 50–1,000 m
Assessor: FLH
Ref: [319]

Ardisia rarescens Standl.
EN B1ab(iii)
Mexico (CHS), Guatemala
Small tree, up to 12 m tall. Mostly found in cloud forest. This species is the only representative of the subgenus *Acrardisia* found in the Americas; the rest (c. 35 species) grow in the Indo-Malayan region. **Synonym:** *Amatlania rarescens* (Standl.) Lundell. **Common name:** *cereza morada.*
Elevational range: 1,300–2,400 m
Assessor: FLH
Ref: [293]

Ardisia revoluta Kunth
NT
Mexico (SON, SIN, DGO, NAY, JAL, VER, COL, MIC, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, 4–8 (rarely 12) m tall. Rare in cloud forest, typically found in tropical semi-evergreen forest, tropical dry forest and pine-oak forest. Mostly occurs along streams. **Synonym:** *Icacorea revoluta* (Kunth) Standl.
Elevational range: 10–1,400 (2,000) m
Assessor: FLH
Refs: [76, 207, 351]

Ardisia tuerckheimii Donn.Sm.
VU A2c
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras
Shrub or small tree, 5–15 m tall. This species occurs in cloud forest and pine-oak forest. **Synonyms:** *Ardisia brevipes* Lundell, *A. carlsonae* Steyerm., *A. trinitariae* Lundell, *A. tuxtepecana* Lundell, *Oerstedianthus brevipes* (Lundell) Lundell, *O. carlsonae* (Steyerm.) Lundell, *O. trinitariae* (Lundell) Lundell, *O. tuerckheimii* (Donn.Sm.) Lundell, *O. tuxtepecanus* (Lundell) Lundell.
Elevational range: 800–1,500 m
Assessor: FLH
Ref: [319]

Ardisia verapazensis Donn.Sm. var. ***verapazensis***
VU A2c
Mexico (GRO, OAX, TAB[?], CHS), Guatemala, Honduras
Shrub to medium-sized tree, 5–15 (20) m tall. Mostly occurs in cloud forest but also found in tropical semi-evergreen forest and tropical rainforest. Besides the typical variety there is *A. verapazensis* Donn.Sm. var. *cucullata* (Lundell) Pipoly & Ricketson, which occurs only in central Chiapas within the elevational range and habitat of the typical form. **Synonyms:** *Ardisia alba* Lundell, *A. eciliata* (Lundell) Pipoly & Ricketson, *A. feniana* Pipoly & Ricketson, *Zunilia alba* (Lundell) Lundell, *Z. eciliata* Lundell, *Z. purpusii* Lundell, *Z. verapazensis* (Donn.Sm.) Lundell.
Elevational range: (650) 900–1,600 (2,600) m
Assessor: FLH
Refs: [207, 293]

Ctenardisia purpusii (Brandegee) Lundell
EN B2ab(iii)
Mexico (CHS)
Small tree, up to 9 m tall. Habitat not recorded by collectors but it can safely assumed to be (from location data) a cloud forest and tropical rainforest species. Known through very few collections from central Chiapas, and not collected for the last 70 years. **Synonyms:** *Ardisia ovandensis* Lundell, *Ardisia purpusii* Brandegee, *Ctenardisia ovandensis* (Lundell) Lundell, *Yunckeria ovandensis* (Lundell) Lundell, *Y. purpusii* (Brandegee) Lundell.
Elevational range: 700–2,400 m
Assessor: FLH
Ref: [321]

Gentlea micranthera (Donn.Sm.) Lundell
NT
Mexico (JAL, VER, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica
Shrub to medium-sized tree, up to 20 m tall. This species occurs in cloud forest and tropical semi-evergreen forest. **Synonyms:** *Ardisia cuneifolia* (Lundell) Lundell, *A. mcvaughii* Lundell, *Gentlea cuneifolia* Lundell, *G. mcvaughii* (Lundell) Lundell, *Parathesis micranthera* Donn.Sm.
Elevational range: 900–2,000 m
Assessor: FLH
Ref: [318]

Gentlea penduliflora (A.DC.) Pipoly & Ricketson
VU B1ab(iii)
Mexico (QRO, HGO, VER, PUE, OAX, CHS)
Small tree, 4–5 m tall. A rare species in cloud forest and pine-oak forest. Endemic to Mexico. **Synonym:** *Heberdenia penduliflora* (A.DC.) Mez
Elevational range: 1,400–2,800 m
Assessor: FLH
Ref: [318]

Gentlea tacanensis (Lundell) Lundell
EN B2ab(iii)
Mexico (CHS), Guatemala
Small tree, up to 5 m tall. Mostly occurs in cloud forest. **Synonym:** *Ardisia tacanensis* Lundell.
Elevational range: 1,300–3,000 m
Assessor: FLH
Refs: [318, 363]

Myrsine juergensenii (Mez) Ricketson & Pipoly
NT
Mexico (NAY, JAL, VER, MIC, MEX, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Small tree, 3–10 m tall. A locally abundant cloud forest species, it also occurs in oak forest and pine-oak forest. It regenerates well in open habitats but seedlings are more frequent under open canopy. **Synonyms:** *Myrsine chiapensis* Lundell, *M. gillyi* Lundell, *M. jaliscensis* Lundell, *M. mexicana* (Lundell) Lundell, *Rapanea chiapensis* (Lundell) Lundell, *R. gillyi* (Lundell) Lundell, *R. jaliscensis* (Lundell) Lundell, *R. juergensenii* Mez, *R. mexicana* Lundell. **Common name:** *tilil*.
Elevational range: (450) 1,500–3,200 m
Assessors: FLH, Expert Group May 2007
Refs: [2, 22, 76, 79, 124, 133, 135, 180, 207, 228, 237, 238, 304, 309, 317, 348, 356, 357, 363, 431]

Parathesis chiapensis Fernald
VU B1ab(iii)
Mexico (NAY, OAX, CHS), Guatemala
Small tree, 3–6 m tall. Occurs in cloud forest and pine-oak forest.
Elevational range: 1,450–1,800 (2,350) m
Assessor: FLH
Ref: [228]

Parathesis cintalapana Lundell
CR B1ab(iii)
Mexico (CHS)
Small tree, up to 7 m tall. A taxon restricted to cloud forest. Only known from the type collection, this appears to be a very rare species.
Elevational range: 1,250 m
Assessor: FLH
Ref: [321]

Parathesis columnaris Lundell
EN B1ab(iii)
Mexico (CHS), Guatemala, El Salvador
Small tree, 3–7 m tall. This species occurs in cloud forest and tropical rainforest. **Synonym:** *Parathesis mirandae* Lundell.
Elevational range: 600–1,800 m
Assessor: FLH
Ref: [321]

Parathesis donnellsmithii Mez
NT
Mexico (TAM, SLP, JAL, QRO, HGO, VER, PUE, GRO, OAX, CHS), Guatemala, Belize, Honduras, Costa Rica
Shrub or small to medium-sized tree, 1–15 m tall. Present in tropical semi-evergreen forest, pine forest, and pine-oak forest, this species is marginal to cloud forest. **Synonyms:** *Parathesis brevipes* Lundell, *P. elliptica* Lundell, *P. oaxacana* Lundell, *P. oblongifolia* Lundell, *P. oxyphylla* Lundell.
Elevational range: 100–1,700 m
Assessor: FLH
Ref: [321]

Parathesis lanceolata Brandegee
EN B1ab(iii)
Mexico (CHS), Guatemala
Shrub or small tree, 3–5 m tall. Found in cloud forest and tropical semi-evergreen forest.
Elevational range: 700–1,200 m
Assessor: FLH
Ref: [321]

Parathesis leptopa Lundell
EN B1ab(iii)
Mexico (OAX, CHS), Guatemala, Honduras
Small tree, 6–9 m tall. This species is a cloud forest specialist. **Synonyms:** *Parathesis oroana* Lundell, *P. tonana* Lundell, *P. violacea* Lundell.
Elevational range: 1,300–2,700 m
Assessor: FLH
Refs: [58, 302]

Parathesis melanosticta (Schltdl.) Hemsl.
VU A2c
Mexico (VER, MIC, MEX, OAX, CHS)
Shrub or tree, 1–7 m tall. This species is found in cloud forest but also occurs in oak forest and pine-oak forest. **Synonyms:** *Parathesis matudae* Lundell, *P. violacea* Lundell.
Elevational range: (950) 1,300–2,400 (2,700) m
Assessor: FLH
Refs: [76, 126]

Parathesis pseudocalophylla Ricketson & Pipoly
CR B1ab(iii)
Mexico (CHS)
Small tree, up to 6 m tall. So far only known from the type collection, growing in cloud forest. The fact that it has not been collected in the last 30 years suggests that the species is rare and that it has a highly restricted distribution.
Elevational range: c. 2,300 m
Assessor: FLH
Ref: [321]

Parathesis subcoriacea Lundell
EN B1ab(iii)
Mexico (CHS)
Small tree, 3–7 m tall. This taxon is restricted to cloud forest. The species is known from a few records, all from Chiapas. Records from Guatemala and Honduras are misidentifications.
Elevational range: 1,950–2,700 m
Assessor: FLH
Ref: [321]

Parathesis subulata Lundell
EN B1ab(iii)
Mexico (CHS), Guatemala
Shrub to small tree, 3–7 m tall. This species is found in high-elevation cloud forest and pine-oak forest. **Synonyms:** *Parathesis lunata* Lundell, *P. nigropunctata* Lundell.
Elevational range: 1,800–2,600 m
Assessor: FLH
Ref: [363]

Parathesis trichogyne Hemsl.
VU B1ab(iii)
Mexico (CHS), Guatemala, Honduras, Nicaragua, Costa Rica
Small to medium-sized tree, up to 15 m tall. Mostly found in tropical rainforest. **Synonym:** *Parathesis chrysophylla* Lundell.
Elevational range: 60–1,580 m
Assessor: FLH
Ref: [321]

Parathesis villosa Lundell
EN B1ab(iii)
Mexico (JAL, COL, MIC)
A shrub or small tree, up to 4 m tall. This species occurs in pine-oak forest and cloud forest. Records of the species from eastern Mexico must be incorrect identifications.
Elevational range: 1,600–1,950 m
Assessor: FLH
Refs: [76, 180, 209, 277, 278, 348, 429]

Synardisia venosa (Mast.) Lundell
NT
Mexico (JAL, MIC, MEX, GRO, CHS), Guatemala, El Salvador, Honduras, Nicaragua
Shrub to medium-sized tree, 4–15 m tall. This species occurs mostly in cloud forest, marginal in tropical semi-evergreen forest.
Common name: *chime.*
Elevational range: 1,300–2,700 m
Assessors: FLH, Expert Group May 2007
Refs: [76, 79, 115, 135, 180, 228, 236, 348, 356, 357, 363, 429]

MYRTACEAE

Calyptranthes schiediana O.Berg
EN A2c
Mexico (VER)
Medium-sized tree, up to 15 m tall. Rare in cloud forest, this species is more typical of tropical dry forest and tropical semi-evergreen forest, occasional in oak forest. Endemic to Mexico. Specimens cited from Nayarit and Oaxaca must belong to a different species. **Common names:** *guayabillo, petcoy*.
Elevational range: 100–1,400 m
Assessor: FLH
Refs: [347, 355, 431]

Calyptranthes schlechtendaliana O.Berg
EN A2c
Mexico (VER)
Small tree, 2–6 m tall. Rare in cloud forest but common in tropical dry forest and tropical semi-evergreen forest. Endemic to Mexico. Specimens cited from Oaxaca must be a different species. This species could just be a variety of *Calyptranthes schiediana*. **Common name:** *guayabillo*.
Elevational range: 100–1,400 m
Assessor: FLH
Ref: [355]

Calyptranthes tenuipes McVaugh
EN B1ab(iii)
Mexico (VER, PUE)
Small tree, 3–5 m tall. This species occurs in cloud forest and oak forest. Endemic to Mexico, known from very few collections.
Elevational range: 1,400–1,800 m
Assessor: FLH
Ref: [355]

Calyptranthes tonii Lundell
EN A2; B2ab(iii)
Mexico (CHS), Guatemala
A medium-sized tree, up to 13 m high. A cloud forest species known in Mexico from very few localities in the Central Highlands of Chiapas, a region where cloud forests and other related vegetation formations have been severely reduced by land-use change. Also present in pine-oak and oak-fir forests. One collection from Guatemala. Very similar to *Calyptranthes mayana* Lundell from Central America.
Elevational range: 2,600–2,700 m
Assessors: NRM, MGE
Ref: [169]

Eugenia chiapensis Lundell
VU B1ab(iii)
Mexico (CHS), Guatemala[?], Costa Rica
Small tree up to 4 m high. This species is found in cloud forest, but also in other forest types at lower elevations. One population under protection in the El Triunfo Biosphere Reserve in Chiapas; other populations in non-protected areas may face severe risks owing to land-use change.
Elevational range: 1,300–2,200 m
Assessors: MGE, NRM
Refs: [13, 190, 279, 363]

Eugenia citroides Lundell
EN A2c; B1ab(iii)
Mexico (CHS), Guatemala
Shrub or small tree, up to 12 m high. This species is a cloud forest specialist. Collections known only from the Sierra Madre de Chiapas and the neighbouring Huehuetenango, San Marcos and Quiché departments in Guatemala. In both areas populations may face severe risks owing to land-use change.
Elevational range: (1,400) 2,000–3,000 m
Assessors: MGE, NRM
Refs: [13, 279]

Eugenia crenularis Lundell
VU B1ab(iii)
Mexico (QRO, VER, MIC, MEX)
A shrub or small tree, 2–5 (10) m tall. This species occurs in cloud forest, pine-oak forest and tropical semi-evergreen forest. Frequently found in humid gorges near streams. **Common name:** *arrajiancillo*.
Elevational range: (500) 1,100–1,750 m
Assessor: FLH
Ref: [58]

Eugenia culminicola McVaugh
EN B1ab(iii)
Mexico (JAL, MEX)
Shrub or small tree, up to 4 m tall. This species occurs in cloud forest and alder (*Alnus*) forest.
Elevational range: 1,800–2,100 m
Assessor: FLH
Refs: [236, 348]

Eugenia guatemalensis Donn.Sm.
VU A2c; B1ab(iii)
Mexico (SIN, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica
Shrub or small to medium-sized tree, up to 6 m (very rarely up to 30 m) tall. This species occurs in cloud forest but more frequently in pine-oak forest and other forest types at lower elevations. Deforestation is widespread in most of its range. **Synonyms:** *Eugenia laughlinii* Lundell, *E. patalensis* Standl. & Steyerm.
Elevational range: 600–2,200 m
Assessors: MGE, NRM
Refs: [13, 279]

Eugenia letreroana Lundell
EN A2c; B1ab(iii)
Mexico (CHS), Guatemala
Shrub or small to medium-sized tree, up to 12 m tall. This species occurs in old-growth cloud forest but more often in pine-oak-*Liquidambar* forest and other forest types at lower elevations. Known from very few localities. Deforestation is widespread throughout most of its range. **Synonyms:** *Eugenia coffeoides* Lundell.
Elevational range: 1,300–2,000 m
Assessors: MGE, NRM
Refs: [13, 279]

Eugenia mexicana Steud.
VU A2c
Mexico (SLP, HGO, VER, CHS), Costa Rica[?]
Shrub to medium sized tree, 6–15 m tall. This species occurs in cloud forest, tropical rainforest, and tropical semi-evergreen forest. Apparently this species has a disjunct distribution but there is only one collection known from Central America. **Common names:** *escobilla, escobilla real, huesillo*.
Elevational range: 150–1,300 m
Assessor: FLH
Refs: [174, 355]

Eugenia ovandensis Lundell
CR A2c; B1ab(iii)
Mexico (CHS)
Small tree. This species is a cloud forest specialist. Only known from the type collection from Monte Ovando in the Sierra Madre de Chiapas. Its habitat is severely fragmented and threatened with further deforestation.
Elevational range: 1,800–1,900 m
Assessors: MGE, NRM
Ref: [13]

Eugenia ravenii Lundell
EN A2c; B1ab(iii)
Mexico (CHS)
Shrub or small tree, up to 13 m tall. This species occurs in cloud forest but also in neighboring humid pine-oak forest. Only known from the Northern Mountains of Chiapas, where severe deforestation has taken place in recent decades.
Elevational range: 1,900–2,100 m
Assessors: MGE, NRM
Ref: [13]

Eugenia tonii Lundell
CR A2c; B2ab(iii)
Mexico (CHS)
Small tree, up to 12 m tall. A species exclusive to cloud forest. Collections from only one locality (Paraje Ach'lum, Tenejapa) where severe deforestation has been recorded over the last two decades.
Elevational range: 2,700–2,800 m
Assessors: MGE, NRM
Ref: [13]

Eugenia trunciflora (Schltdl. & Cham.) O.Berg
VU A2c
Mexico (SLP, VER, OAX, TAB, CHS)
Small tree, 4–8 m tall. A typical cloud forest species, it is also present in tropical semi-evergreen forest and tropical rainforest. Endemic to Mexico. **Common names:** *cojón de gato, manzanita cimarrona.*
Elevational range: (200) 800–1,500 m
Assessor: FLH
Ref: [355]

Eugenia xalapensis (Kunth) DC.
VU A2c
Mexico (TAM, SLP, QRO, HGO, VER, GRO)
Shrub or small tree, 2–6 m tall. This species occurs in cloud forest, oak forest, and tropical semi-evergreen forest. **Common name:** *capulín, escobillo*.
Elevational range: (750) 1,100–1,950 m
Assessor: FLH
Refs: [58, 137, 207, 295, 355, 445]

Eugenia xilitlensis McVaugh
EN B1ab(iii)
Mexico (SLP, QRO, VER)
Small tree, to 6 m tall. This species occurs in cloud forest and adjacent tropical semi-evergreen forest.
Elevational range: 900–1,200 m
Assessor: FLH
Ref: [58]

Olacaceae

Heisteria media S.F.Blake
VU A4c
Mexico (VER, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica
Medium-sized tree, up to 25 m tall but usually shorter. A cloud forest and tropical rainforest understorey species, it is common in dense, shady forest conditions. Usually rare. Mexican specimens have sometimes been confused with *Heisteria acuminata* (Humb. & Bonpl.) Benth. & Hook., a Colombian species. **Synonyms:** *Heisteria chippiana* Standl., *H. macrophylla* Standl.
Elevational range: (0) 240–1,200 m
Assessor: JAM
Refs: [279, 352]

1. *Mollinedia viridiflora* (Monimiaceae). An endangered small tree of old-growth cloud forests of Chiapas and Guatemala. Close-up of leaves and fruits. Photo by G. Cornejo-Tenorio.
2. *Ocotea helicterifolia* (Lauraceae). A vulnerable small tree or shrub of montane forests of Mexico and Central America. Close-up of leaves and inflorescence. Photo by G. Cornejo-Tenorio.
3. *Conostegia arborea* (Melastomataceae). A showy, medium sized tree, endangered and endemic to eastern Mexico. Photo by C. Gallardo.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4. *Magnolia mexicana* (Magnoliaceae). A vulnerable large tree of old-growth cloud forests in Mexico and Central America. Close-up of flower. Photo by L. Martínez-Torres.
5. *Cojoba arborea* (Fabaceae). A medium or large, near threatened tree, common in wet ravines of the cloud forest (in fruit). Photo by F. Lorea.
6. Heavy load of epiphytes on *Quercus laurina* in a cloud forest in the Central Highlands of Chiapas. Photo by N. Ramírez-Marcial.
7. *Symplocos longipes* (Symplocaceae). An endangered small or medium-sized tree typical in the cloud forest. Photo by C. Gallardo.
8. *Spathacanthus hahnianus* (Acanthaceae). A vulnerable species of the cloud forest quasi-endemic to Mexico. Close-up of a branchlet with flowers. Photo by F. Lorea.
9. *Quercus candicans* (Fagaceae). A vulnerable large tree typical of cloud forests in Mexico and Central America. Close-up of leaves and mature acorn. Photo by G. Cornejo-Tenorio.

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10. *Chirantodendron pentadactylon* (Malvaceae). A vulnerable large tree typical of southern Mexican cloud forests. Close-up of a flowering branch. The flower inspired the icon of the Botanical Society of Mexico since the early 1940s. Photo by G. Ibarra-Manríquez.
11. *Dalbergia palo-escrito* (Fabaceae). A critically endangered large tree endemic to Mexican cloud forests. Close-up of flowering branch. Photo by G. Cornejo-Tenorio.
12. *Symplocos coccinea* (Symplocaceae). An endangered and rare small tree of cloud forests endemic to Mexico. Close-up of flower. Photo by G. Cornejo-Tenorio.
13. Cloud forest interior in the hyper-humid region of the Northern Oaxaca Range. Photo by J. A. Meave.
14. *Ficus apollinaris* (Moraceae). A vulnerable, medium-sized to large tree, rare in cloud forests of Mexico, and Central and South America. Close-up of fruiting branch. Photo by G. Ibarra-Manríquez.
15. *Bauhinia chapulhuacania* (Fabaceae). An endangered small tree of cloud forests. Close-up of inflorescence. Photo by G. Cornejo-Tenorio.


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16. A steep slope of cloud forest in Bachajón, Chiapas, southern Mexico. Photo by N. Ramírez-Marcial.
17. *Ocotea sauroderma* (Lauraceae). One of the several endangered species in the Lauraceae, endemic to the wet cloud forest in Oaxaca. Branch with fruits. Photo by F. Lorea.
18. *Nectandra reticulata* (Lauraceae). A near threatened tree marginal to cloud forests of Mexico and Central and South America. Close-up of leaves and flowers. Photo by G. Ibarra-Manríquez.
19. *Oreomunnea mexicana* (Juglandaceae). An endangered very tall tree found in a few wet places of cloud forest. Branch with fruits. Photo by M. Muñiz.
20. *Psychotria galeottiana* (Rubiaceae). A vulnerable small tree. Branch with flowers buds and open flower. Photo by C. Gallardo.
21. *Matudaea trinervia* (Hamamelidaceae). A vulnerable large tree typical of cloud forests in Mexico, and Central and northern South America. Close-up of fruiting branch. Photo by L. Martínez-Torres.

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22. *Acer negundo* subsp. *mexicanum* (Sapindaceae). A vulnerable small to medium-sized tree. Close-up of fruiting branch. Photo by N. Ramírez-Marcial.
23. Understorey of an oak-dominated cloud forest stand in the Central Highlands of Chiapas. Photo by N. Ramírez-Marcial.
24. Side view of the canopy of a cloud forest stand dominated by *Oreomunnea mexicana* in winter time in central Veracruz. Photo by C. Gallardo.


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25. *Lacistema aggregatum* (Lacistemaceae). A near threatened small to medium-sized tree typical of old-growth cloud forests of Mexico, and Central and South America. Close-up of flowering branch; inset showing fruits. Photo by G. Cornejo-Tenorio.

Oleaceae

Osmanthus americanus (L.) Benth. & Hook.f. ex A.Gray
NT
United States, Mexico (SON, CHI, NL, TAM, DGO, SLP, JAL, GTO, QRO, HGO, VER, PUE, GRO, OAX, CHS)
A medium-sized tree species, up to 22 m tall. Typically found in old-growth cloud forests in Mexico, but also occurs in forest formations at lower elevations. It has a disjunct distribution, being widespread at low elevations in the southeastern United States. **Synonyms:** *Olea mexicana* L., *Osmanthus americanus* var. *microphyllus* P.S.Green, *O. mexicanus* Lundell. **Common names:** *chichito, huesillo, tliltsapocuahuitl.* Its timber is regarded as high quality.
Elevational range: (0)1,200-2,500 m
Assessors: RDC, MGE
Refs: [31, 58, 79, 89, 137, 153, 241, 279, 295, 335, 343, 429, 438]

Onagraceae

Hauya elegans DC. subsp. ***cornuta*** (Hemsl.) P.H.Raven & Breedlove
VU A2(iii); B1ab(iii)
Mexico (PUE, CHS), Guatemala, El Salvador, Honduras, Costa Rica
A small or medium-sized deciduous tree, up to 25 m tall, more frequently smaller; trunk up to 50 cm in diameter. This subspecies is found in cloud forest but also occurs in oak, pine-oak, pine forest and tropical dry forest, sometimes in riparian and in open disturbed habitats. Hoch [168] recognizes four subspecies of *Hauya elegans* DC. of which only subsp. *cornuta* is a cloud forest tree. The typical subspecies is restricted to mountain ranges bordering the southern edge of the Chihuahuan Desert in San Luis Potosí and Hidalgo states in central Mexico. *Hauya cornuta* Hemsl., a synonym, is considered, in Guatemala, as threatened with extinction predicted to occur in the near future. The subspecies *lucida* (Donn.Sm. & Rose) P.H.Raven & Breedlove is a Central American taxon (no Mexican collections in the *TROPICOS* database). Subspecies *barcenae* (Hemsl.) P.H.Raven & Breedlove seems not to be a cloud forest taxon as it is common in tropical dry forest at lower elvations. **Synonyms:** *Hauya cornuta* Hemsl. *H. hemsleyana* Loes., *H. lemnophila* Donn.Sm. & Rose, *H. longicornuta* Loes. var. *oblongifolia* Loes., *H. longicornuta* Loes. var. *ovalifolia* Loes., *H. matudae* Lundell, *H. microcerata* Donn.Sm. & Rose, *H. pedicellata* Loes., *H. quercetorum* Donn.Sm. & Rose, *H. rodriguezii* Donn.Sm., *H. ruacophilia* Donn.Sm. & Rose.
Elevational range: (760) 900–1,600 (2,000) m
Assessor: MGE
Refs: [76, 168, 279]

Papaveraceae

Bocconia glaucifolia Hutch.
EN B2ab(iii)
Mexico (CHS), Guatemala, El Salvador, Honduras
Small tree, up to 4 m tall. Present in Mexico apparently only in the Central Plateau of Chiapas in pine-oak forest (one record) and cloud forest (three records). All specimens recorded in *TROPICOS* are from Central America.
Elevational range: 1,500–2,600 m
Assessors: SAC, MGE
Refs: [29, 279]

Bocconia gracilis Hutch.
EN B2ab(iii)
Mexico (CHS), Guatemala, Honduras
Shrub or small tree, up to 4 m tall. Restricted to cloud forest. In Mexico it is only known from localities in the Northern Mountains and the Central Plateau of Chiapas.
Elevational range: (550) 1,100–2,400 m
Assessors: SAC, MGE
Refs: [29, 279]

Bocconia vulcanica Donn.Sm.
EN B2ab(ii,iii)
Mexico (CHS), Guatemala
Small tree, up to 8 m tall. A cloud forest species but also found in conifer forests at higher elevations. Abundant in Guatemala. **Synonym:** *Bocconia oblanceolata* Lundell. Seeds or fruits used as a remedy for toothache.
Elevational range: 2,000–3,800 m
Assessor: SAC
Refs: [29, 279]

Pentaphylacaceae

Cleyera cernua (Tul.) Kobuski
CR A3c; B1ab(ii,iv)
Mexico (VER, OAX)
Small tree, up to 6 m tall. This is a typical cloud forest species with a very restricted distribution. The taxon is known from five herbarium specimens only. **Synonym:** *Freziera cernua* Tul.
Elevational range: 1,500–1,700 m
Assessors: ILV, JAM
Ref: [212]

Cleyera theoides (Sw.) Choisy
NT
Mexico (QRO, HGO, VER, PUE, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Jamaica, Cuba
Medium-sized tree, up to 20 m tall. This species is a common cloud forest component but it also occurs in oak forest, pine-oak forest, pine forest and tropical dry forest. Fully mature individuals are rare. **Common names:** *copal, coshosh té, naranjillo, taonabo, trompillo, trompillo colorado, yshinché*. It regenerates well after fire and it can be established from seedlings. Seeds are moderately tolerant to cold and low humidity and it is recommended to sow them shortly after being collected. Germination can be very high on damp beds; seedlings are frost intolerant. Its timber has been traditionally valued for making poles and recently as a source of charcoal.
Elevational range: 900–2,800 m
Assessors: ILV, MGE, JAM
Refs: [4, 51, 124, 133–135, 212, 229, 238, 295, 302, 305–309, 312]

Cleyera velutina B.M.Barthol.
EN B1ab(iii)
Mexico (GRO, OAX)
Medium-sized tree, 5–15 m tall. This Mexican endemic species has a narrow range that is restricted to the Sierra Madre del Sur where it forms part of cloud forest and other montane forest formations.
Elevational range: 2,100–3,000 m
Assessors: ILV, JAM
Refs: [96, 115, 211, 212]

Freziera candicans Tul.
EN A4c; B1ab(iii)
Mexico (OAX, GRO, CHS), Guatemala, Nicaragua, Costa Rica, Panama, Colombia, Venezuela
Small tree, up to 9 m tall. This species is a rare component of cloud forests; in Mexico it is only known from seven vouchers. **Synonym:** *Freziera macrophylla* Tul.
Elevational range: 1,725–2,000 m
Assessors: ILV, JAM
Refs: [207, 210, 211]

Freziera guatemalensis (Donn.Sm.) Kobuski
EN A2c+3c; B2ab(ii,iii)
Mexico (VER, OAX, CHS), Guatemala, Honduras, Nicaragua
Medium-sized tree, up to 12 m tall. A common cloud forest component, this species also occurs in other forest types typical of lower elevations. Its populations normally grow at low densities and land-use change is the main threat to them. In Mexico this species is very scarce and it is known only from southern locations. **Synonym:** *Eurya guatemalensis* Donn.Sm.
Elevational range: 1,200–1,900 m
Assessors: ILV, JAM
Refs: [212, 279]

Symplococarpon purpusii (Brandegee) Kobuski
VU A3c
Mexico (NAY, JAL, VER, MEX, GRO, OAX, CHS), Guatemala, Belize, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Colombia
Medium-sized tree, 10–20 m tall. This cloud forest species can also be found in oak forest, pine-oak forest and tropical rainforest. A very variable species that usually grows at low densities. **Synonym:** *Symplococarpon flavifolium* Lundell, *S. hintonii* (Bullock) Airy Shaw. **Common name:** *palo colorado*.
Elevational range: 800–2,600 m
Assessors: ILV, JAM
Refs: [79, 145, 207, 278, 279, 348, 349, 351, 356, 357, 363, 428, 444]

Ternstroemia dentisepala B.M.Barthol.
EN B1ab(iii)
Mexico (SIN, DGO, NAY, JAL)
Medium-sized tree, 10–20 m tall. This Mexican endemic species is restricted in its distribution to the Western region of the country. It occurs in cloud forest, oak forest, pine-oak forest and fir forest. **Synonym:** *Ternstroemia maltbyana* Standl.
Elevational range: 1,200–2,150 m
Assessors: ILV, JAM
Refs: [79, 145, 212, 348, 356, 357]

Ternstroemia huasteca B.M.Barthol.
EN B1ab(iii)
Mexico (SLP, QRO, HGO, VER, PUE)
Shrub or small to medium-sized tree, up to 20 m tall but usually much smaller. The geographical range of this Mexican endemic species is restricted to the Sierra Madre Oriental. In addition to cloud forest, this taxon is also known from oak forest, pine-oak forest and pine forest. **Common names:** *clavito, ministro, trompillo, trueno*.
Elevational range: 900–2,100 m
Assessors: ILV, JAM
Refs: [4, 14, 51, 58, 212, 229, 295]

Ternstroemia lineata DC. subsp. ***lineata***
NT
Mexico (SIN, DGO, NAY, JAL, VER, COL, MIC, MEX, MOR, GRO, OAX, CHS)
Medium-sized tree, 10-20 m tall. This subspecific taxon is endemic to Mexico and it grows in cloud forest, oak forest and pine-oak forest. It belongs to the most widely distributed species of this genus in Mexico. **Synonym:** *Ternstroemia pringlei* (Rose) Standl. **Common names:** *charapit uku, cucharillo, flor de tila, hierba del cura, jaboncillo, jazmín, palo rojo, palo colorado, tila, trompillo*. The flowers are widely used in folk medicine.
Elevational range: 300–3,300 m
Assessors: ILV, JAM
Refs: [2, 15, 51, 70, 71, 76, 79, 96, 115, 145, 166, 180, 211, 212, 228, 236, 302, 335, 356, 428, 429]

Ternstroemia lineata DC. subsp. ***chalicophila*** (Loes.) B.M.Barthol.
EN A2cd+3c; B2ab(ii,iii)
Mexico (OAX, CHS), Honduras
Small tree, usually around 5 m tall, occasionally up to 12 m. This species has a very restricted geographical range and it occurs in cloud forest, oak forest, pine-oak forest and pine forest. The species tends to be fairly abundant in those communities where it occurs but its habitat is becoming increasingly less available owing to logging and permanent forest clearing for agriculture. **Synonym:** *Ternstroemia chalicophila* Loes. **Common name:** *coshoshté*. Seeds should be exposed to cold water for 1–2 days before they are allowed to germinate; germination on covered damp beds with organic matter in nurseries is variable (30–95%). Seedlings are intolerant to direct insolation. The wood is used in the manufacture of guitar parts. The flower is known as "*té de tila*" and it is used to make a medicinal tea.
Elevational range: 900–2,900 m
Assessors: ILV, MGE, JAM
Refs: [15, 43, 124, 135, 211, 212, 304, 309]

Ternstroemia oocarpa (Rose) Melch.
VU B2ab(ii,iii)
Mexico (VER, TAB, OAX, CHS, QTR)
Small to medium-sized tree, up to 22 m tall but usually smaller. This species is not restricted to cloud forest as it also occurs in pine-oak forest, tropical humid forest, savanna and sclerophyllous scrub. As with other species of this genus, this one is taxonomically difficult to delimit. The main threat faced by it is habitat loss owing to land cover change. This tree is used as a source of firewood.
Elevational range: 0–2,700 m
Assessors: ILV, JAM
Refs: [135, 212]

Ternstroemia sylvatica Schltdl. & Cham.
VU A4c; B1ab(iii)
Mexico (TAM, SLP, GTO, QRO, HGO, VER, MEX, DF, PUE, GRO, OAX), Belize, El Salvador
Large shrub or small tree, up to 12 m tall. This species occurs in cloud forest but it can also be found in oak forest, pine-oak forest, pine forest and fir forest. **Synonym:** *Mokofua sylvatica* (Schltdl. & Cham.) Kuntze. **Common names:** *hierba del cura, ixquefé, limoncillo de meztitlán, ministro, palo agrio, tepezapote, tilia grande, trompillo*. The flowers are used to make infusions with relaxing properties.
Elevational range: 900–2,950 m
Assessors: ILV, JAM
Refs: [4, 51, 58, 126, 137, 180, 211, 212, 225, 300, 301, 445]

Ternstroemia tepezapote Schltdl. & Cham.
NT
Mexico (VER, MEX, GRO, OAX, CHS, CAM, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized tree, up to 15 m tall. This species is a typical cloud forest element but it also occurs in many other montane and lowland vegetation types. It is a highly variable species that represents a taxonomic complex as yet not well understood. The species is best represented at lower altitudes. **Synonyms:** *Ternstroemia seleriana* Loes., *T. hemsleyi* Hochr., and possibly *T. seemannii* Triana & Planch. **Common names:** *hierba del cura, limoncillo, ma-ta-ne-no, mo-ta-ne, matapiojo, memela, memelita, naranjillo, tepetsapotl, tepezapote, tilil, trompilllo, zapotillo*. This species is widely used in folk medicine but some toxicity has also been suggested.
Elevational range: 0–2,370 m
Assessors: ILV, JAM
Refs: [96, 115, 211, 212, 225, 228, 238, 309, 431, 444]

Phyllanthaceae

Phyllanthus purpusii Brandegee
NT
Mexico (CHS), Guatemala
Small tree, up to 4 m tall. Not restricted to cloud forest but also found in pine-oak forest. In Mexico known only from Chiapas but reported as abundant in Suchitepéquez (Guatemala).
Elevational range: 2,100–2,700 m
Assessor: MMG
Refs: [224, 279, 441]

Phyllanthus tuerckheimii G.L.Webster
DD
Mexico (OAX, CHS), Honduras
Marginal to cloud forest, mostly found in forest formations at lower elevations.
Elevational range: 150–1,500 m
Assessor: MMG
Refs: [224, 441]

Phyllonomaceae

Phyllonoma laticuspis (Turcz.) Engl.
VU A4c
Mexico (SIN, DGO, JAL, HGO, VER, MIC, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Peru, Bolivia
Shrub or small, slender tree, up to 13 m tall. This species is a frequent cloud forest understorey component but it also occurs in pine-oak forest, tropical semi-evergreen forest and secondary vegetation. It tends to be abundant in those communities where it grows. Morphological analyses show a high vegetative variability for this species across its range. **Synonyms:** *Dulongia laticuspis* Turcz., *Phyllonoma coriacea* L.Riley. **Common names:** *cuendilla, guixi-yetza-bidao, yaga-lope, hierba de la viruela*.
Elevational range: 1,200–2,800 m
Assessor: JAM
Refs: [76, 96, 99, 126, 207, 225, 333]

PICRAMNIACEAE

Picramnia guerrerensis W.W.Thomas
EN A4c
Mexico (SIN, JAL, MIC, MEX, GRO)
Small, slender tree, up to 8 m tall. This is a typical cloud forest species, where it forms small dense populations, mostly concentrated in moist, shady habitats. Occasionally occurs in wet oak forest and pine oak forest.
Elevational range: (1,700) 2,000–2,250 (3,500) m
Assessor: JAM
Refs: [76, 277, 400]

Picramnia polyantha (Benth.) Planch.
VU A4c
Mexico (QRO, VER, GRO, OAX, CHS), Guatemala, Honduras
Large shrub or small tree, up to 6 m tall. A rare species in cloud forest and oak forest. Apparently restricted to limestone substrate. **Synonym:** *Rhus polyantha* Benth.
Elevational range: (650) 1,600–2,400 m
Assessor: JAM
Refs: [29, 341, 400]

Picramnia teapensis Tul.
VU A4c
Mexico (VER, OAX, TAB, CHS, QTR), Guatemala, Nicaragua, Costa Rica, Panama, Colombia, Ecuador
Shrub or small tree, up to 6 m tall. This species typically occurs in cloud forest but it is also present in adjacent montane tropical rainforest and tropical evergreen forest. It shows a strong preference for very humid habitats. It is more abundant in Central American countries than in Mexican locations. **Synonym:** *Picramnia carpinterae* Pol.
Elevational range: (0) 500–1,800 m
Assessor: JAM
Ref: [400]

Picramnia xalapensis Planch.
EN A4c
Mexico (SLP, QRO, HGO, VER, PUE, OAX)
Large shrub or small tree, up to 10 m tall. This Mexican endemic taxon is largely restricted to Veracruz state, with few collections from close-by regions in neighbouring states. A typical but very scarce cloud forest component, it can also be found in oak forest. It shows a strong preference for moist shady habitats. **Common name:** *cacahuatillo*. The fruit is edible.
Elevational range: 1,200–1,750 m
Assessor: JAM
Refs: [4, 209, 295, 341, 400]

PINACEAE

Abies guatemalensis Rehder
VU B1ab(i); C1; D2
Mexico (NL, TAM, JAL, GRO, OAX, CHS), Guatemala, Honduras
Very large tree, up to 45 m tall. A rare species of old-growth cloud forests that sometimes forms monospecific stands covering small areas, probably because of regeneration waves in forest gaps. It regenerates well in open areas but its saplings are shade-tolerant. Original habitats have suffered severe deforestation. Overexploitation of this species has been reported, which is a consequence of its valuable timber. Restoration of populations in the wild from seedlings may be straightforward. In Mexico it has a disjunct distribution and it is known from small and isolated populations. Listed as Endangered by the Mexican Government (NOM-ECOL-059-94) and listed in CITES Appendix I. Very popular as a Christmas tree and for holiday decorations. **Synonyms:** *Abies guatemalensis* Rehder var. *jaliscana* Martínez, *Abies tacanensis* Lundell. **Common names:** *abeto de guatemala, oyamel, pinabete, plumajatzin, romerillo, temtoj*. Used as source of timber.
Elevational range: (1,300) 1,800–4,080 m
Assessors: RDC, NRM, MGE, JAM
Refs: [31, 76, 107, 115, 225, 279, 304, 306, 307, 309, 429]

Abies hickelii Flous & Gaussen
VU B2ab(i,iv)
Mexico (VER, GRO, OAX, CHS), Guatemala
Medium-sized tree, up to 20 m tall. A rare cloud forests species. Listed as 'Endangered' by the Mexican Government (NOM-ECOL-059-94). **Synonym:** *Abies oaxacana* Mart. **Common names:** *laga-axi, lasha-ual-co, ocopetla, pinabete, plumajillo, plumajillo de montaña, yaga-laga-xe.*
Elevational range: 1,650–3,000 m
Assessors: RDC, JAM
Refs: [107, 115, 225]

Abies religiosa (Kunth) Schltdl. & Cham.
NT
Mexico (NL, SIN, SLP, JAL, HGO, VER, MIC, MEX, DF, MOR, TLA, PUE)
Large tree, usually attaining a height of 35 m or more. This tree frequently forms mono-dominated pure stands in cool, moist areas of very high elevation, and its presence in cloud forest is marginal. This species always occurs at high elevation locations. **Synonym:** *Pinus religiosa* Kunth. **Common names:** *abeto, oyamel, pinabete*. The wood is used in house construction and for paper pulp.
Elevational range: 2,450–3,550 m
Assessor: JAM
Refs: [76, 233, 252, 267, 277]

Pinus ayacahuite C.Ehrenb. ex Schltdl.
VU A4ad; B1ab(i)
Mexico (NL, SIN, GTO, QRO, HGO, VER, MIC, MEX, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, Honduras, El Salvador
Very large tree, up to 50 m tall and trunk up to 2 m in diameter. This is a typical pine of high-elevation cloud forests and conifer forests. It often forms small monospecific stands, probably because of regeneration waves in forest gaps. Although widely distributed, this species may face local risks of extinction owing to overexploitation and global climate change. Its populations may be easily restored from seedlings planted in open areas or with light cover. In Mexico it has a notoriously disjunct distribution. **Common names:** *acalocahuite, acalocote, a'cxua't, ayacahuite, ayaucuáhuitl, ocote, ocote blanco, ocote gretado, pinabete, pinabeto, pino, pino cahuite, pino real, pino tabla, salacahuite*. This species is highly valued for its timber.
Elevational range: (300) 950–2,500 (3,000) m
Assessors: RDC, NRM, MGE, JAM
Refs: [76, 96, 107, 115, 124, 180, 207, 225, 236, 291, 302, 304, 306–310]

Pinus chiapensis (Martínez) Andresen
VU B1ab(i,iii)
Mexico (VER, PUE, GRO, OAX, CHS), Guatemala
Tall tree, up to 40 m and trunk up to 1 m in diameter. This pine is widespread in southern Mexico, whereas there are very few records from neighbouring Guatemala. Although a common cloud forest species, it also thrives in pine-oak forest. It shows good regeneration in open areas and highly disturbed sites, e.g. areas affected by landslides. Very frequent in areas with very steep slopes. **Synonym:** *Pinus strobus* L. var. *chiapensis* Martínez. **Common names:** *acalocote, k'uj toj, pinabete, pino blanco, tonotzin*. Its wood is used for furniture and other hand-made objects such as doors and window frames.
Elevational range: (500) 700–2,700 m
Assessors: RDC, JAM
Refs: [88–92, 107, 124, 180, 207, 238, 291, 306–309, 393, 431, 452]

Pinus tecunumanii F.Schwerdtf. ex Eguiluz & J.P.Perry
NT
Mexico (OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua
Large tree, up to 50–55 m tall and trunk up to 120 cm in diameter. A pine species marginal to cloud forest; more commonly found in mesic habitats of more seasonal formations like oak forest and pine-oak forest but also in conifer forest at higher elevations. Not a widely distributed species, its scattered presence in mesic habitats in Mexico is threatened by illegal deforestation. **Synonyms:** *Pinus oocarpa* var. *ochoterenae* Martínez, *P. patula* Schltdl. & Cham. subsp. *tecunumanii* (F.Schwerdtf ex Eguiluz & J.P.Perry) Styles. **Common name:** *pino, ocote.* This species has received considerable interest for its potential in plantation forestry for production of timber in tropical areas. Seed collection has been carried out throughout its range.
Elevational range: (300) 550–2,500 (2,900) m
Assessors: MGE, NRM
Refs: [107, 124, 291, 295, 305, 309]

Platanaceae

Platanus mexicana Moric.
NT
Mexico (NL, TAM, SLP, QRO, HGO, VER, MEX, DF, PUE, OAX, CHS), Guatemala
Large tree, up to more than 40 m tall and trunk up to 2 m in diameter. Found only on riversides - a restricted habitat in Mexico. Also found at disturbed sites. Nearly endemic to Mexico, very few specimens are known from outside the country. Widespread in eastern, central and southern Mexico. **Synonyms:** *Platanus chiapensis* Standl., *P. lindeniana* M.Martens & Galeotti, *P. oaxacana* Standl. **Common names:** *acuáhuitl, álamo, álamo blanco, chicolcohuite, guayabillo, haya, olivo, papalotcuáhuit, papalote*.
Elevational range: (175) 700–2,400 m
Assessor: Expert Group May 2007
Refs: [48, 209, 228, 229, 279, 295, 309, 363, 445]

Podocarpaceae

Podocarpus matudae Lundell
EN B2ab(ii,iii)
Mexico (TAM, SLP, JAL, HGO, VER, MIC, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras
A medium-sized or large dioecious tree, up to 30 m tall and trunk more than 1.5 m in diameter. This Mexican endemic species is restricted to cloud forest. It occurs at very low densities in old-growth, undisturbed forest. More taxonomical studies are needed in order to clearly differentiate it from *Podocarpus reichei*. In Mexico mostly known from Chiapas, where its habitat has been drastically reduced, and from Oaxaca. **Synonym:** *Podocarpus reichei* J.Buchholz & N.E.Gray. All varieties listed by CONABIO are considered in *TROPICOS* as synonyms of *P. matudae* Lundell. **Common name:** *cedro prieto, chusnito, lengua de pájaro, olivo, palmilla, palmillo, palmito, sabina, tabla.* The timber may have desirable qualities.
Elevational range: (800) 2,200-2465 m
Assessors: ILV, MGE, GIM
Refs: [4, 11, 68, 69, 76, 135, 137, 207, 228, 229, 241, 279, 300, 301, 309, 311, 335, 347, 356, 429, 445, 449, 452]

Polygonaceae

Coccoloba hirtella Lundell
CR A4ac
Mexico (VER, OAX), Belize[?], Panama[?]
A small tree restricted in Mexico to cloud forest (lower montane forest) at La Chinantla (Oaxaca) and around Xalapa (Veracruz). Specimens from Belize and Panama seem to be doubtful identifications.
Elevational range: 1,000–1,200 m
Assessor: JAM
Ref: [170]

Coccoloba montana Standl.
EN A4c
Mexico (VER, MIC, GRO, OAX, CHS), Guatemala, El Salvador, Honduras
A small tree, 4–15 m tall, that in Mexico only occurs in the southern part of the country. Not abundant. **Synonym:** *Coccoloba matudae* Lundell. **Common names:** *carnero, uvero*. Used as a source of firewood and the fruit is edible.
Elevational range: 0–1,200 m
Assessor: JAM
Ref: [174]

Proteaceae

Roupala montana Aubl.
NT
Mexico (QRO, VER, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Lesser Antilles
A widespread, small or large tree, up to 30 m tall with a trunk 30 cm or more in diameter. Not restricted to cloud forest, this species also occurs in other forest formations at lower elevations. **Synonyms:** *Roupala borealis* Hemsl., *R. repanda* Lundell. **Common names:** *palo de cucaracha, palo del muerto, palo de zorrillo*.
Elevational range: 0–2,550 m
Assessors: SAC, MGE, GIM
Refs: [40, 58, 279]

Rhamnaceae

Rhamnus betulifolia Greene
VU B1ab(ii,iii)
United States, Mexico (SON, CHI, COA, NL, TAM, DGO, HGO)
A tree or shrub species with a marginal distribution in cloud forest but also occurs in other vegetation types under considerably drier conditions, mostly in the northern states of Mexico in moist canyons. **Synonyms:** *Rhamnus californica* Eschs. var. *betulifolia* (Greene) Trel. ex A.Gray, *R. purshiana* DC. var. *betulifolia* (Greene) Cory; closely related and probably conspecific with *R. caroliniana* Walt.
Elevational range: 1370–2,600 m
Assessors: SAC, MGE
Refs: [73, 110, 300, 301]

Rhamnus breedlovei M.C.Johnst. & L.A.Johnst.
EN A4c; B1ab(iii)
Mexico (CHS), Guatemala
A small tree or shrub of cloud forest this species also occurs in humid oak forest. Known in Chiapas from a few localities nearby the Tzontehuitz volcano where its habitat has been severely disturbed in recent decades.
Elevational range: 2,200–2,850 m
Assessors: SAC, MII, MGE
Refs: [110, 182]

Rhamnus capreifolia Schltdl. var. ***matudae*** M.C.Johnst. & L.A.Johnst.
VU A4c
Mexico (QRO, VER)
A small tree, 5–6 m tall. This Mexican endemic variety is not restricted to cloud forest but is also present in pine-oak forest, mainly in open habitats. **Common name:** *palo amarillo*.
Elevational range: 800–1,400 m
Assessors: SAC, MGE
Refs: [4, 58, 109, 110, 112, 182, 229, 445]

Rhamnus hintonii M.C.Johnst. & L.A.Johnst.
VU B1ab(ii,iii)
Mexico (JAL, COL, MIC, MEX, MOR, GRO)
A small tree, up to 4.5 m tall, endemic to Mexico. This species is found on moist and rocky slopes in cloud forest, pine-oak forest, occasionally fir forest, and in second growth vegetation.
Elevational range: (1,500) 1,850–2,550 m
Assessors: SAC, MGE
Refs: [79, 110, 112, 182, 277, 278, 348, 356, 357]

Rhamnus longistyla C.B.Wolf
VU B1ab(ii,iii)
Mexico (QRO, HGO, VER, MEX, PUE)
A small tree up to 5 m tall, endemic to Mexico. Not restricted to cloud forest it is also present in oak forest and pine-oak forest. Occurs on hillsides or along ravines, usually in deep soils. **Common name:** *capulincillo*.
Elevational range: (1,450) 1,700–2,100 (2,880) m
Assessors: SAC, MGE
Refs: [4, 109, 110, 112, 126, 182, 209, 229, 295]

Rhamnus pompana M.C.Johnst. & L.A.Johnst.
VU A2c
Mexico (HGO, VER, PUE)
A small tree, 6–12 m tall, endemic to eastern Mexico. A cloud forest species but also found in oak forest and pine-oak forest and in their second-growth vegetation, frequently in riparian habitats. Its habitat in the higher Huasteca region is very fragmented.
Elevational range: 1,200–2,150 m
Assessors: SAC, MGE
Refs: [4, 109, 110, 182]

Rhamnus sphaerosperma Sw. var. ***mesoamericana*** M.C.Johnst. & L.A.Johnst.
VU B1ab(ii,iii)
Mexico (JAL, OAX, CHS), Guatemala, El Salvador, Honduras
A small or medium-sized tree, 8–15 m tall. Not restricted to cloud forest, this taxon also occurs in secondary vegetation in humid habitats of oak and pine-oak forest. In Mexico most specimens are from Chiapas.
Elevational range: (1,000) 1,500–2,200 (2,700) m
Assessors: NRM, MGE
Ref: [182]

ROSACEAE

Photinia matudae Lundell
CR A1c; B1ab(iii)
Mexico (CHS), Guatemala
A small cloud forest tree, this species is found only in a few high elevation localities in the Central Plateau of Chiapas and near the Tacaná Volcano, making it particularly sensitive to climatic change.
Elevational range: 2,400–2,800 m
Assessor: NRM
Ref: [279]

Photinia mexicana (Baill.) Hemsl.
VU A4c
Mexico (QRO, VER, MIC, OAX, CHS)
A small, rare tree species that is restricted to cloud forest. **Synonym:** *Chamaemeles mexicana* Baill. **Common name:** *peral silvestre*.
Elevational range: 2,000–4,000 m
Assessor: NRM
Ref: [58]

Photinia microcarpa Standl. subsp. ***microcarpa***
VU A4c
Mexico (JAL, QRO, MIC, GRO, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Panama
A small tree, up to 15 m tall and trunk up to 50 cm in diameter. A rare cloud forest taxon, it is also found in oak forest and pine-oak forest. A small number of fruits are usually produced by each tree, therefore seeds must be obtained from several individuals. Seedlings can be obtained from seeds placed in humid soil to germinate (45–60% germination). **Common names:** *manzana de ratón, tzon'te*.
Elevational range: (800) 1,100–2,500 m
Assessors: NRM, MGE
Refs: [76, 207, 279, 309, 344]

Photinia microcarpa Standl. subsp. ***hintonii*** J.B.Phipps
VU A4c
Mexico (JAL, QRO, MIC, MEX, GRO, OAX, CHS), Guatemala, Honduras
Tree, 3–15 m tall. This cloud forest taxon is also present in oak forest and pine-oak forest. **Common names:** *encinillo, naranjillo*.
Elevational range: 900–2,480 m
Assessors: JAM, MGE, GIM
Refs. [207, 344]

Prunus barbata Koehne
EN A1c; B2ab(i,iii)
Mexico (CHS), Guatemala
A small tree, up to 11 m tall. A scarce species in cloud forest, it also occurs in oak forest, pine-oak forest and montane rainforest. Its original habitat has been severely deforested. In Mexico it is only known from the Central Plateau and the Sierra Madre de Chiapas. Easily propagated from seed in nurseries; seeds are difficult to find but have a high germination rate (90–100%). **Common name:** *cerezo*. Its timber is used for poles, to make tool handles, and to build wooden supporting structures in vineyards.
Elevational range: (1,500) 1,800–2,700 (3,200) m
Assessors: NRM, MGE
Refs: [279, 306, 307, 309]

Prunus brachybotrya Zucc.
VU A1c;B1ab(i,iii)
Mexico (NL, SLP, JAL, QRO, HGO, VER, MIC, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama
A large tree, up to 35 m tall and trunk up to 40 cm in diameter. This species is found in cloud forest but is also present in oak forest. Widely distributed with small isolated populations. A doubtful record from Leimebamba, Amazonas Department, Peru (2,100–2,300 m). A highly variable entity in need of a detailed systematic study across its entire range. Easily propagated in nursery from seeds but seedlings are frost intolerant. **Synonyms:** *Prunus laurifolia* Schltdl., *P. prionophylla* Standl. **Common names:** *aguacatillo, aguacatero, capulincillo, cerezo, cerezo montés, cochoc, duraznillo, eucaz, huevo de gato, naranjillo colorado, palo barranco, sarzafrás, ucase*. Used as a shade tree in coffee plantations, Wood used for making poles and as a source of firewood.
Elevational range: (380) 1,200-2,260 (2,400) m
Assessors: NRM, MGE
Refs: [2, 4, 76, 79, 96, 174, 180, 236, 238, 277–279, 295, 309, 344, 347, 351, 363, 431]

Prunus cortapico Kerber ex Koehne
VU A1c; B1ab(i,iii)
Mexico (SIN, VER, COL, MIC, MEX, GRO, OAX, CHS), Guatemala
A small tree, up to 15 m tall. This rare cloud forest species is also found in protected ravines, gorges, canyons, and cliffs with oak forest and tropical dry forest, sometimes in riparian habitats. It grows on well-drained soils. Its natural habitat has been largely removed to establish coffee plantations. It grows in open disturbed areas like roadsides but it does not regenerate in pastures. **Common name:** *cortapico*. Leaves are reported to be poisonous to cattle. Medicinal uses have been reported for the fruit and seed.
Elevational range: 750–1,900 m
Assessors: MGE, NRM
Refs: [167, 278, 351, 427]

Prunus guatemalensis I.M.Johnst.
CR A1c;B1ab(iii)
Mexico (CHS), Guatemala
A medium-sized tree, up to 30 m tall and trunk up to 40 cm in diameter. A rare cloud forest species. Found in steep canyons and riparian habitats. In Mexico it has been collected only in the Sierra Madre de Chiapas and the Northern Mountains of this state. The original habitat has been severely deforested and the species has not been collected in the last 35 years, which suggests that this species could be extinct in the wild in Mexico. **Common name:** *hormiguillo negro*. Its timber is considered to be of good quality and is used for construction.
Elevational range: 1,800–2,300 (2,700) m
Assessors: NRM, MGE
Refs: [241, 279]

Prunus lundelliana Standl.
EN B2ab(ii,iii); C1
Mexico (VER, GRO, OAX, CHS), Guatemala, Honduras, El Salvador
A small or medium-sized tree, 5–18 m tall and trunk up to 40 cm in diameter. A cloud forest species that is also found at lower elevations and in secondary vegetation. Seeds have a high germination rate (90–100%) and they can be stored for up to three months in cold temperatures. Its populations can be restored by planting seedlings, which are susceptible to frost in open areas. **Common name:** *cerezo, escobo, taquicuí.* Timber used for poles, to make tool handles, and to build wooden support for vine crops.
Elevational range: (500) 1,300–2,400 (2,620) m
Assessors: NRM, MGE
Refs: [134, 207, 241, 279, 306, 307, 309]

Prunus rhamnoides Koehne
VU A1c; B1ab(iii)
Mexico (CHI, TAM, DGO, SLP, JAL, GTO, HGO, VER, MIC, GRO, OAX, CHS), Guatemala, Belize, Costa Rica, Panama
A small to medium-sized tree, 8–20 m tall and trunk up to 14 cm in diameter. Rare in cloud forest, this species is also present in oak forest and conifer forest. Easily propagated from seed in nurseries; seedlings are frost-intolerant. **Common names:** *capulín, capulín loco, cerezo, iza, mataiza*. Used for firewood.
Elevational range: (950) 1,500–2,400 (2,700) m
Assessors: NRM, MGE
Refs: [76, 96, 124, 134, 207, 279, 306, 307, 309, 344]

Prunus samydoides Schltdl.
NT
Mexico (SLP, QRO, HGO, VER, PUE)
Evergreen small tree, up to 8 (rarely 12) m tall, frequently growing as a shrub. Relatively abundant in ravines and steep slopes in cloud forest but also occurs in humid oak forest and tropical dry and humid forests at lower elevations; common in disturbed habitats. A species endemic to eastern Mexico; records from Oaxaca are probably misidentifications. **Synonym:** *Prunus potosina* Lundell. It is used in traditional medicine in the Huasteca Potosina region (San Luis Potosí state). **Common name:** *tsak te'*.
Elevational range: 500–1,650 m
Assessors: MGE, NRM
Refs: [4, 295, 344]

Prunus tetradenia Koehne
VU A1c; B1ab(iii)
Mexico (NAY, JAL, HGO, VER, MEX, OAX, CHS)
A small to medium-sized tree, 3–15 (–25) m tall. A cloud forest species, occasionally present in secondary vegetation. Sometimes locally abundant. Often misidentified as *Prunus brachybotrya* Zucc. Similar to *Prunus megacarpa* Pérez-Zab. from Colombia. Many collection localities for this species have suffered intense human disturbance in recent decades. At least one population is currently under protection in the El Triunfo Biosphere Reserve in the Sierra Madre de Chiapas. **Common name:** *zapotillo.*
Elevational range: (100) 1,000–2,400 m
Assessors: NRM, MGE
Refs: [62, 229, 290, 356, 363, 427]

Rubiaceae

Arachnothryx buddleioides (Benth.) Planch.
VU A4c
Mexico (NAY, JAL, VER, COL, MIC, MEX, GRO, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, 1–9 (–12) m. This species occurs in cloud forest and tropical rainforest. **Synonyms:** *Arachnothryx longipetiolata* (Lundell) Borhidi, *Rondeletia affinis* Hemsl., *R. buddleioides* Benth., *R. longipetiolata* Lundell, *R. rothschuhii* Loes. Tree used for firewood.
Elevational range: 0–2,200 m
Assessors: GIM, FLH, GCT
Refs: [27, 96, 174, 202, 207, 279]

Arachnothryx capitellata (Hemsl.) Borhidi
EN A4c
Mexico (HGO, VER, PUE, GRO, OAX, CHS), Guatemala
Shrub or small tree, 1–5 m tall. This species occurs in cloud forest and pine-oak forest. Borhidi [27] proposed two subspecies with vicariant areas (subsp. *capitellata*, found throughout the range of the species, excepting Hidalgo, Puebla, Veracruz, whereas the subsp. *pringlei* (Lorence) Borhidi is restricted to these latter states). **Synonyms:** *Arachnothryx pringlei* (Lorence) Borhidi, *Rondeletia capitellata* Hemsl., *R. pringlei* Lorence.
Elevational range: 1,400–2,400 m
Assessors: GIM, FLH, GCT
Refs: [27, 126, 209, 229]

Arachnothryx guerrerensis (Lorence) Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (GRO)
Shrub or small tree, 2.5–4 m tall. This species is a strict cloud forest specialist. **Synonym:** *Rondeletia guerrerensis* Lorence.
Elevational range: 1,700–1,900 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 207]

Arachnothryx laniflora (Benth.) Planch.
VU A4c
Mexico (GRO, OAX, CHS), Guatemala, El Salvador
Small tree, 2–8 m tall. A cloud forest species but also present in drier forest types. **Synonyms:** *Arachnothryx albida* (Lundell) Borhidi, *A. bourgaei* (Standl.) Borhidi, *Rondeletia albida* Lundell, *R. bourgaei* Standl., *R. laniflora* Benth.
Elevational range: 1,250–2,900 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 228, 279]

Arachnothryx latiloba Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (GRO)
Shrub or small tree, up to 4 m tall. Apparently this taxon is completely restricted to cloud forest, from where it is only known from the type specimen.
Elevational range: c. 1,900 m
Assessors: GIM, FLH, GCT
Refs: [27, 28]

Arachnothryx manantlanensis (Lorence) Borhidi
CR A4c
Mexico (JAL, COL)
Shrub or small tree, 1–5 m tall. A strict cloud forest specialist with a restricted geographical range. **Synonym:** *Rondeletia manantlanensis* Lorence.
Elevational range: c. 1,850 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 277, 279, 356, 357]

Arachnothryx monticola Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (GRO)
Shrub or small tree, 2–4 m tall. A strict cloud forest specialist, this species appears to be very rare as it is only known from the type specimen.
Elevational range: c. 1,950 m
Assessors: GIM, FLH, GCT
Refs: [27, 28]

Arachnothryx nitida (Hemsl.) Borhidi
CR A4c
Mexico (OAX, CHS)
Shrub or small tree, up to 5 m tall. A cloud forest specialist. **Synonym:** *Rondeletia nitida* Hemsl. **Common name:** *mimosa*.
Elevational range: 1,600–2,800 m
Assessors: GIM, FLH, GCT
Ref: [27]

Arachnothryx pauciflora Borhidi
CR B1ab(ii)
Mexico (CHS)
Small tree, 3–5 m tall. This strict cloud forest specialist has a highly restricted geographical range.
Elevational range: c. 1,600 m
Assessors: GIM, FLH, GCT
Refs: [27]

Arachnothryx purpurea (Lorence) Borhidi
CR A4c; B2ab(ii,iii,iv)
Mexico (OAX)
Shrub or small tree, 2–6 m tall. A cloud forest specialist, this species has only been collected in the Northern Oaxaca Range. **Synonym:** *Rondeletia purpurea* Lorence.
Elevational range: 1,100–1,900 m
Assessors: GIM, FLH, GCT
Refs: [27, 202]

Arachnothryx pyramidalis (Lundell) Borhidi
VU A4c
Mexico (GRO, OAX, CHS)
Small to medium-sized tree, 5–13 m tall. This species is a strict cloud forest specialist. **Synonym:** *Rondeletia pyramidalis* Lundell.
Elevational range: 1,300–2,500 m
Assessors: GIM, FLH, GCT
Refs: [27, 28, 228, 363, 444]

Arachnothryx rzedowskii (Lorence) Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (GRO)
Small tree, 3–6 m tall. This strict cloud forest specialist is only known from a reduced area in the municipality of Atoyac de Álvarez. **Synonym:** *Rondeletia rzedowskii* Lorence.
Elevational range: 1,700–1,950 m
Assessors: GIM, FLH, GCT
Refs: [27, 28, 202, 207]

Arachnothryx tacanensis (Lundell) Borhidi
CR A4c
Mexico (CHS), Guatemala
Shrub or small tree, 2–4 m tall. A strict cloud forest specialist with a very small geographical range. **Synonym:** *Rondeletia tacanensis* Lundell.
Elevational range: 1,600–2,700 m
Assessors: GIM, FLH, GCT
Ref: [27]

Arachnothryx tenorioi (Lorence) Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (OAX)
Shrub or small tree, 2–4 m tall. A strict cloud forest specialist with a very small geographical range. **Synonym:** *Rondeletia tenorioi* Lorence. Closely related to *Arachnothryx tacanensis* (Lundell) Borhidi.
Elevational range: c. 1,900 m
Assessors: GIM, FLH, GCT
Refs: [27, 202]

Arachnothryx tuxtlensis (Lorence & Cast.-Campos) Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (VER)
Shrub or tree, 3–12 m tall. This species occurs in cloud forest and tropical rainforest, frequently in riparian habitats. **Synonym:** *Rondeletia tuxtlensis* Lorence & Cast.-Campos. Closely related to *R. zolleriana* Standl. & Steyerm.
Elevational range: 670–1,350 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 203]

Balmea stormae Martínez
EN A4c
Mexico (NAY, JAL, COL, MIC, MEX, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador
Shrub or medium-sized tree, 2–20 m tall, sometimes epiphytic or lithophytic. This species occurs in cloud forest and oak forest, often in riparian habitats. Used for timber and floral arrangements.
Elevational range: 1,300–2,300 m
Assessors: GIM, FLH, GCT
Refs: [27, 76, 79, 277, 279]

Bellizinca scoti (J.H.Kirkbr.) Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (PUE, OAX)
Shrub or small tree, 2–4 m tall. This species is a strict cloud forest specialist. **Synonyms:** *Deppea scoti* (J.H.Kirkbr.) Lorence, *Omiltemia scoti* J.H.Kirkbr. Related to *Deppea oaxacana* Lorence.
Elevational range: 2,000–3250 m
Assessors: GIM, FLH, GCT
Refs: [27, 206]

Cosmibuena matudae (Standl.) L.O.Williams
EN A4c
Mexico (CHS), Guatemala, El Salvador, Honduras, Nicaragua
Usually an epiphytic tree, 4–20 m tall. This species occurs in cloud forest and tropical rainforest. **Synonyms:** *Cosmibuena holdridgei* Monach., *Hillia matudae* Standl.
Elevational range: 900–2,100 m
Assessors: GIM, FLH, GCT
Refs: [27, 279]

Chiococca phaenostemon Schltdl.
DD
Mexico (VER, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama
Shrub or small tree, up to 8 m tall. A cloud forest species, but also occurs in many other vegetation types. Its taxonomic status is unclear owing to inconsistencies in growth form and lack of diagnostic characters.
Elevational range: 750–3,000 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 279]

Chione venosa (Sw.) Urb. subsp. ***mexicana*** (Standl.) Borhidi
EN A4c
Mexico (VER, TAM)
Small to medium-sized tree, 4–15 m tall. Present in cloud forest, tropical rainforest and pine-oak forest. **Synonym:** *Chione mexicana* Standl.
Elevational range: 0–2,300 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 202, 300, 301]

Chomelia brachypoda Donn.Sm.
EN A4c
Mexico (OAX, CHS), Guatemala
Shrub or small to medium-sized tree, 3–13 m tall. Present in cloud forest and tropical evergreen forest. **Synonym:** *Anisomeris brachypoda* (Donn.Sm.) Standl.
Elevational range: 300–1,600 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 279]

Chomelia protracta (Bart. ex DC.) Standl.
VU A4c
Mexico (NAY, VER, GRO, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Colombia
Small tree, 3-6 (10) m tall. Mostly occurs in cloud forest. **Synonyms:** *Anisomeris protracta* (Bartl. ex DC.) Standl., *Guettarda protracta* Bartl. ex DC., *G. galeottii* Standl.
Elevational range: 0–1,500 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 279]

Csapodya splendens (Breedlove & Lorence) Borhidi
CR A4c; B1ab(ii,iii,iv)
Mexico (CHS)
Small understory tree, 5–8 m tall. This species is a strict cloud forest specialist. **Synonym:** *Deppea splendens* Breedlove & Lorence.
Elevational range: c. 2,100 m
Assessors: GIM, FLH, GCT
Refs: [27, 206]

Deppea cornifolia (Benth.) Benth.
VU A4c
Mexico (NL, DGO, SLP, JAL, HGO, MIC, MEX, PUE, GRO, OAX)
Shrub or small tree, 2–5 m tall. Present in cloud forest, oak forest, pine forest and pine-oak forest. **Synonyms:** *Choristes cornifolia* (Benth.) Benth, *Rondeletia cornifolia* Benth. Closely related to to *Deppea guerrerensis* Dwyer & Lorence.
Elevational range: 1,000–2,500 m
Assessors: GIM, FLH, GCT
Refs: [27, 76, 115, 206]

Deppea grandiflora Schltdl.
VU A4c
Mexico (VER, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama
Shrub or small tree, 1–5 m tall. This species occurs in cloud forest and tropical rainforest, frequently in riparian habitats. **Synonyms:** *Deppea floribunda* Hemsl., *D. costaricensis* Pol., *D. longipes* Standl.
Elevational range: 1,200–2,900 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 96, 206, 207]

Deppea guerrerensis Dwyer & Lorence
VU B1ab(iii)
Mexico (JAL, MIC, MEX, GRO)
Shrub or small tree, 3–7 m tall. A cloud forest specialist, this species is closely related to *Deppea cornifolia* (Benth.) Benth. and to *D. grandiflora* Schltdl.
Elevational range: 1,750–2,700 m
Assessors: GIM, FLH, GCT
Refs: [27, 76, 206]

Deppea obtusiflora (Benth.) Benth.
CR A4c; B1ab(ii,iii,iv)
Mexico (OAX)
Shrub or small tree, 1.5–4 m tall. This species occurs exclusively in cloud forest. Closely related to *Deppea cornifolia* (Benth.) Benth. **Synonym:** *Choristes obtusiflora* Benth.
Elevational range: 1,860–2,600 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 206]

Faramea cobana Donn.Sm.
CR A4c
Mexico (OAX, CHS), Guatemala
Shrub or small tree, 1–4 m tall. This species is a cloud forest specialist with a relatively small geographical range.
Elevational range: 1,200–1,800 m
Assessors: GIM, FLH, GCT
Ref: [27]

Faramea schultesii Standl.
CR A4c
Mexico (VER, OAX, CHS)
Shrub or small tree, 2–8 m tall. This species occurs in cloud forest and tropical rainforest. Deforestation throughout its range is widespread.
Elevational range: 700–1,800 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 333, 347]

Glossostipula concinna (Standl.) Lorence
EN A4c
Mexico (JAL, QRO, VER, GRO, OAX, CHS), Guatemala, Honduras, Nicaragua, Panama
Small tree, 3–15 m tall. A cloud forest specialist. **Synonyms:** *Genipa vulcanicola* Standl., *Randia concinna* Standl.
Elevational range: (760) 1,100–2,200 m
Assessors: GIM, FLH, GCT
Refs: [27, 207, 228, 279, 444]

Gonzalagunia chiapasensis (Standl.) Standl. & Steyerm.
EN A4c
Mexico (VER, GRO, TAB, CHS), Guatemala
Shrub or small tree, 2–6 m tall. A strict cloud forest specialist. **Synonym:** *Rondeletia chiapasensis* Standl. **Common name:** *almendrillo.*
Elevational range: 1,100–2,400 m
Assessors: GIM, FLH, GCT
Refs: [27, 279]

Gonzalagunia thyrsoidea (Donn.Sm.) B.L.Rob.
CR A4c
Mexico (TAB, CHS), Guatemala
Shrub or small tree, 3–10 m tall. Nearly exclusive to cloud forest, its range extends into lower elevations. **Synonyms:** *Gonzalea thyrsoidea* Donn.Sm., *Gonzalagunia tacanensis* Lundell.
Elevational range: 550–1,500 m
Assessors: GIM, FLH, GCT
Refs: [27, 202, 279]

Hamelia barbata Standl.
CR A4c
Mexico (TAB, CHS), Guatemala
Shrub or small tree, 3–8 m tall. A cloud forest and tropical rainforest species, frequently found in riparian habitats.
Elevational range: 300–1,800 m
Assessors: GIM, FLH, GCT
Refs: [27, 279]

Lorencea guatemalensis (Standl.) Borhidi
EN A4c
Mexico (VER, CHS), Guatemala, Honduras
Small to medium-sized tree, 9–19 m. This species grows in cloud forest and tropical evergreen forest, often in riparian habitats. **Synonyms:** *Coutaportla guatemalensis* (Standl.) Lorence, *Portlandia guatemalensis* Standl.
Elevational range: 150–1,300 m
Assessors: GIM, FLH, GCT
Refs: [27, 279]

Palicourea macrantha Loes.
VU A4c
Mexico (VER, OAX, CHS), Guatemala
Shrub or small tree, 1–5 m tall. This is a strict cloud forest specialist. **Synonym:** *Palicourea purpusii* Standl.
Elevational range: 1,000–1,900 m
Assessors: GIM, FLH, GCT
Refs: [27, 279]

Psychotria breedlovei Lorence
CR A4c
Mexico (CHS), Guatemala
Shrub or small tree, (1) 4-8 m tall. This species is a strict cloud forest specialist.
Elevational range: 1,300–1,400 m
Assessors: GIM, FLH, GCT
Refs: [27]

Psychotria chiapensis Standl.
VU A4c
Mexico (SLP, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, 2–10 m tall. A marginal cloud forest species, it usually grows in tropical rainforest, frequently occurs in riparian habitats. **Common names:** *cacaté cimarrón, yoale prieto*.
Elevational range: 160–1,000 (1,700) m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 135, 174, 279]

Psychotria flava Oerst. ex Standl.
NT
Mexico (VER, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador [other countries in Central America are doubtful]
Shrub or small tree, 2–10 m tall. Although present in cloud forest, this species is more typical of tropical rainforest, frequently in riparian habitats. **Common name:** *tepecajete blanco*.
Elevational range: 50–1,600 m
Assessors: GIM, FLH, GCT
Refs: [27, 158, 174, 279]

Psychotria galeottiana (M.Martens) C.M.Taylor & Lorence
VU B1ab(iii)
Mexico (HGO, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, 1-4 (7) m tall. This species grows in cloud forest and pine-oak forest. **Synonyms:** *Palicourea galeottiana* M.Martens, *P. seleri* Loes.
Elevational range: 1,500–2,800 m
Assessors: GIM, GCT
Refs: [27, 126, 238, 279]

Psychotria megalantha Lorence
CR A4c
Mexico (VER, OAX)
Small to medium-sized tree, 5–12 m tall. This species is a cloud forest specialist.
Elevational range: 720–1,600 m
Assessors: GIM, FLH, GCT
Ref: [27]

Psychotria panamensis Standl. var. ***ixtlanensis*** C.W.Ham.
CR A4c
Mexico (OAX)
Shrub or small tree, 2–4 m tall. This taxon is a narrow cloud forest specialist.
Elevational range: 700–2,000 m
Assessors: GIM, FLH, GCT
Refs: [27, 159]

Psychotria panamensis Standl. var. ***panamensis***
VU A4c
Mexico (VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia
Shrub or small tree, 2–13 m tall. This taxon occurs in cloud forest and tropical rainforest, frequently in riparian habitats. **Synonyms:** *Psychotria durilancifolia* Dwyer, *P. grandistipula* Standl., *P. molinae* Standl., *P. yunckeri* Standl.
Elevational range: 350–2,460 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 159, 279]

Psychotria phanerandra (Standl. & Steyerm.) Lorence
VU A4c
Mexico (HGO, VER, GRO, OAX, TAB, CHS), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, 3–6 m tall. Cloud forest and tropical rainforest, frequently in riparian habitats. **Synonyms:** *Palicourea phanerandra* Standl. & Steyerm., *Psychotria luteotuba* Lorence.
Elevational range: 20–1,700 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 205, 207]

Psychotria sousae Lorence & Dwyer
CR A4c
Mexico (VER, OAX)
Shrub or small tree, 3–6 m tall. This species occurs in cloudforest and tropical rainforest, particularly in riparian habitats.
Elevational range: 400–1,560 m
Assessors: GIM, FLH, GCT
Refs: [27, 205]

Randia matudae Lorence & Dwyer
VU A4c
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Tree, varying in size between 3–30 m tall. This species occurs in cloud forest and tropical evergreen forest. **Synonym:** *Randia chiapensis* Standl.
Elevational range: 150–2,300 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 205, 279]

Randia pterocarpa Lorence & Dwyer
EN A4c
Mexico (VER, OAX)
Shrub or small tree, 2–5 m tall. Found in cloud forest and tropical rainforest. Closely related to *Randia oaxacana* Standl.
Elevational range: 150–1,200 m
Assessors: GIM, FLH, GCT
Refs: [27, 174, 204]

Rogiera amoena Planch.
VU B1ab(iii)
Mexico (SIN, JAL, OAX, GRO, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, 1.5 (–10) m tall. Present in cloud forest, pine forest and pine-oak forest, along streams. **Synonym:** *Rondeletia amoena* (Planch.) Hemsl. **Common names:** *sakiltzop, sakilltzop*. This species has been used as an ornamental plant in gardens and temperate greenhouses.
Elevational range: 1,500–2,600 m
Assessors: GIM, GCT
Refs: [27, 33, 279, 356]

Rogiera cordata (Benth.) Planch.
EN A4c
Mexico (OAX, CHS), Guatemala
Small tree, 2–10 m tall. This common cloud forest species is also present in oak forest, pine forest, pine-oak forest and tropical rainforest. Borhidi [27] proposed two varieties. **Synonyms:** *Rondeletia aprica* Lundell, *R. cordata* Benth., *R. intermedia* Hemsl., *Rogiera aprica* (Lundell) Borhidi.
Elevational range: 300–2,850 m
Assessors: GIM, FLH, GCT
Refs: [27, 279]

Rogiera stenosiphon (Hemsl.) Borhidi
VU A4c
Mexico (TAM, VER, GRO, OAX, TAB, CHS, YUC), Guatemala, Belize
Shrub or tree, 1–9 m. This species occurs in cloud forest but is also present in humid and dry forests at lower elevations. **Synonym:** *Rondeletia stenosiphon* Hemsl. **Common names:** *cangrejo, eisitatz, ejsitotz*.
Elevational range: 300–1,750 m
Assessors: GIM, FLH, GCT
Refs: [27, 28, 279]

Sommera arborescens Schltdl.
EN A4c
Mexico (VER, OAX, CHS), Guatemala
Shrub or small tree, 2–6 m tall. This species occurs in cloud forest, tropical rainforest and riparian forest. **Synonym:** *Sommera zygocalyx* L.O.Williams. **Common names:** *capulín, capulincillo*.
Elevational range: 150–2,100 m
Assessors: GIM, FLH, GCT
Refs: [28, 333]

Sommera chiapensis Brandegee
EN A4c
Mexico (CHS), Guatemala, Honduras
Small tree, 6–12 m tall. This species is a cloud forest specialist.
Elevational range: 1,200–1,500 m
Assessors: GIM, FLH, GCT
Refs: [28, 279, 384]

Sommera grandis (Bartl. ex DC.) Standl.
VU A4c
Mexico (SIN, NAY, JAL, COL, MIC, GRO, OAX)
Small tree, 3–8 m tall. A cloud forest species, also present in oak forest and tropical semi-evergreen forest, frequently found in riparian habitats. **Common name:** *palo colorado*.
Elevational range: 300–1,400 m
Assessors: GIM, FLH, GCT
Refs: [28, 207, 351]

Rutaceae

Amyris rekoi S.F.Blake
VU B1ab(iii)
Mexico (JAL, COL, GRO, OAX)
A shrub or small tree, 4-7 (10) m tall. Common in tropical semi-evergreen forest, this species is marginal to cloud forest. Frequently occurs along stream beds. **Common names:** *comida de chachalaca, tepetaca, zorrillo*.
Elevational range: (500) 700–1,500 m
Assessor: FLH
Ref: [278]

Decatropis bicolor (Zucc.) Radlk.
NT
Mexico (NL, TAM, SLP, GTO, QRO, HGO, VER, CHS)
Shrub to small tree, 2–10 m tall. Very rare in cloud forest, it is more frequent in oak forest and arid tropical scrub, sometimes in tropical dry forest. According to current nomenclatural rules the species name is invalid, yet we use it since it is widely cited as such and there is still no valid publication that updates the binomial.
Elevational range: (300) 800–1,900 (2,400) m
Assessor: FLH
Ref: [4]

Peltostigma pteleoides (Hook.) Walp.
NT
Mexico (SIN, DGO, HGO, VER, CHS), Guatemala, El Salvador, Nicaragua, Costa Rica, Jamaica
Shrub to medium-sized tree, 3-10 (20) m tall. Rare in cloud forest, this species usually grows in oak forest and pine-oak forest.
Elevational range: 1,500–2,300 m
Assessor: FLH
Ref: [29]

Stauranthus perforatus Liebm.
VU B1ab(iii)
Mexico (VER), Costa Rica, Panama
Shrub to small tree, 5 m tall. In Mexico this is an exclusive cloud forest component. Apparently a disjunct species, it is known from very few collections in Mexico. **Synonym:** *Zanthoxylum ghiesbreghtii* Turcz.
Elevational range: 1,300–1,500 m
Assessor: FLH

Sabiaceae

Meliosma alba (Schltdl.) Walp.
EN B1ab(iii)
Mexico (NL, TAM, SLP, QRO, HGO, VER, PUE), Guatemala
Medium-size tree, 6–15 m, seldom up to 40 m tall. This species is mainly found in cloud forest but also occurs in oak forest and tropical semi-evergreen forest. The range of this species in Mexico is largely restricted to the Sierra Madre Oriental. Interestingly, this species has also been reported from SE Asia. **Synonyms:** *Meliosma beaniana* Rehder & E.H.Wilson, *Millingtonia alba* Schltdl. **Common names:** *cedrillo, cedro blanco, fresno, palo blanco, sauco*. This tree is a source of timber and used as an ornamental tree.
Elevational range: 700–1,900 m
Assessors: JAM, GIM
Refs: [4, 98, 126, 137, 225, 229, 300, 301, 388, 445]

Meliosma dentata (Liebm.) Urb.
NT
Mexico (CHI, TAM, SIN, DGO, JAL, VER, COL, MIC, MEX, DF, MOR, GRO, OAX, CHS), Guatemala, El Salvador, Honduras
Small to medium-size tree, 8–22 m tall. A common cloud forest species, it also occurs in pine-oak forest, pine forest and tropical rainforest. It is a common component in secondary vegetation stands. **Synonyms:** *Lorenzeana dentana* Liebm., *Meliosma oaxacana* Standl. **Common names:** *aguacatillo, colorao, cupanda, encinillo, haya, palo de aguacate*.
Elevational range: 600–3,100 m
Assessors: FLH, JAM
Refs: [2, 11, 76, 79, 96, 98, 115, 166, 180, 236, 238, 277, 279, 300, 301, 309, 348, 356, 357, 388]

Meliosma idiopoda S.F.Blake
VU B1ab(iii)
Mexico (OAX, CHS), Guatemala, Nicaragua, Costa Rica, Panama
Small to medium-sized tree, 5–20 m. A typical cloud forest species, it also occurs in humid pine-oak forest. **Synonym:** *Meliosma dives* Standl. & Steyerm.
Elevational range: (400) 900–2,200 m
Assessor: FLH

Meliosma mexicana V.W.Steinm.
EN B2ab(iii)
Mexico (TAM, QRO)
Medium-sized tree, up to 20 m tall. This endemic Mexican taxon is restricted to mountainous habitats of the Sierra Madre Oriental where it occurs in cloud forest as well as humid pine-oak forest.
Elevational range: 800–1,900 m
Assessors: GIM, JAM
Refs: [387, 388]

Meliosma nesites I.M.Johnst.
EN A4c; B1ab(iii)
Mexico (JAL, COL)
Small tree, up to 6 m tall. A typical component of the cloud forest of Jalisco, this is a very rare and narrowly endemic Western Mexican taxon.
Elevational range: 0–1,200 m
Assessor: JAM
Refs: [277, 429]

Salicaceae

Abatia mexicana Standl.
EN B1ab(iii)+2ab(iii)
Mexico (VER, PUE, GRO, OAX)
Shrub or small tree, up to 5 m tall. A narrowly endemic species and a typical cloud forest taxon, it also occurs in oak forest and pine forest.
Elevational range: 1,050–2,220 m
Assessors: GIM, JAM
Refs: [94, 263]

Casearia arguta Kunth
NT
Mexico (SIN, NAY, JAL, VER, COL, MIC, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia
Large shrub or small tree, up to 14 m tall. A rare cloud forest component, this species normally occurs in tropical lowland rain and dry forests, savanna and riparian forest. **Common names:** *cedrón, chatilla, coacoyolillo, guayabillo, fruto de loro, mierda de loro, pie de venado, tu-yuu*.
Elevational range: 0–1,500 (2,000) m
Assessors: JAM, SVA
Refs: [76, 225, 263, 279, 351]

Casearia tacanensis Lundell
NT
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized tree, up to 20 m tall. A typical cloud forest tree, this species is not restricted to this vegetation type, and in fact its preferred habitat is tropical rainforest. Like other species in this genus, this is a very common plant in secondary vegetation. **Common name:** *granadillo.*
Elevational range: 0–2,000 (2,500) m
Assessors: JAM, SVA
Refs: [173, 263]

Hasseltia guatemalensis Warb.
EN A4c
Mexico (CHS), Guatemala, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador
Medium-sized tree, up to 20 m tall. A typical cloud forest species, it also occurs in lower elevation tropical forest formations. **Synonym:** *Hasseltia floribunda* Kunth var. *nicaraguensis* Sleumer. **Common name:** *citeito*.
Elevational range: (15) 600–2,400 m
Assessors: JAM, SVA
Refs: [225, 297]

Hasseltiopsis dioica (Benth.) Sleumer
EN A4c
Mexico (JAL, VER, CHS), Guatemala, Honduras, Nicaragua, Costa Rica
Small tree, up to 10 m tall. This rare species occurs in cloud forest and lower montane semi-evergreen forest. It is so rare that it is only known by fewer than 10 records in the country, although its geographical range is not so restricted. **Synonyms:** *Banara dioica* Benth., *Hasseltia costaricensis* Standl., *H. dioica* (Benth.) Sleumer.
Elevational range: 700–2,200 m
Assessors: JAM, SVA
Refs: [79, 263, 297, 356, 357]

Lunania mexicana Brandegee
VU A4c
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama
Slender tree, up to 15 m tall and trunk up to 30 cm in diameter. Rare in cloud forest, its preferred habitat is the lowland tropical region, particularly the tropical rainforest. Scarce in the communities where it occurs. **Synonym:** *Lunania piperoides* Standl. **Common name:** *mierda de loro*.
Elevational range: 0–2,000 (2,460) m
Assessors: JAM, SVA
Refs: [174, 263, 279]

Olmediella betschleriana (Göpp.) Loes.
EN A4c; B1ab(iii)
Mexico (VER, CHS), Guatemala, El Salvador, Honduras, Nicaragua
Medium-sized tree, 15 m tall or more. A typical cloud forest species, this tree is usually rare and shows little regeneration in the wild, but it can easily be propagated from seed. Populations have been successfully restored from transplanted juveniles into open and lightly shaded habitats. **Synonyms:** *Ilex betschleriana* Göpp., *Licopolia sincephala* Rippa., *Olmediella cesatiana* Baill., *Xylosma aquifolia* Sprague. **Common names:** *capelcoy, huececilla, ixtulán, kolmash, k'olomash, manzana de burro, manzana de judas, zapote blanco.*
Elevational range: (700) 1,000–2,700 m
Assessors: JAM, MGE
Refs: [124, 134, 136, 225, 279, 297, 306, 308, 309]

Populus guzmanantlensis A.Vázquez & R.Cuevas
VU B2ab(iii)
Mexico (JAL)
Large dioecious tree, up to 45 m tall. An occasional cloud forest component, this species typically grows in tropical semi-evergreen forest. It is always associated with streams. **Common names:** *alamillo, álamo, algodoncillo*. The bark has medicinal uses.
Elevational range: 400–1,250 m
Assessors: JAM, GIM
Refs: [423]

Populus mexicana Wesm. ex DC.
VU A4c
Mexico (SON, TAM, SIN, HGO, VER, CHS)
Large tree, up to 25 m tall. This species has a marginal occurrence in cloud forest. It usually grows in riparian habitats of other climatic regions, mainly associated with tropical semi-evergreen forest. It is considered vulnerable to increasing drought resulting from climate change.
Elevational range: 0–1,700 m
Assessors: JAM, ILV
Refs: [102, 258]

Populus simaroa Rzed.
VU A4c
Mexico (MIC, MEX, GRO)
Very large tree, up to 45 m tall. This Mexican endemic cloud forest species is reported to have an unorthodox leafing pattern as it sheds the leaves at the onset of the rainy season and flushes the new ones in the cold, dry season. **Common names:** *álamo, simaroa, tepolcoxtli*.
Elevational range: (1,700) 2,000–2,500 m
Assessors: JAM, ILV
Refs: [76, 96, 115, 180, 207, 337]

SAPINDACEAE

Acer negundo L. subsp. ***mexicanum*** (DC.) Wesmael
VU B1ab(ii,iii,iv,v)
Mexico (COA, NL, SLP, HGO, VER, MIC, MEX, DF, PUE, TLA, CHS), Guatemala, Honduras
Small to medium-sized tree, up to 23 m tall and trunk up to 45 cm in diameter. Not restricted to cloud forest, this species is also known from oak and pine-oak forests on sites both at relatively low and high elevations. Never abundant where it occurs, it does not form pure stands. Frequently in riparian habitats. Deforestation and habitat degradation are its major threats. The category assigned here updates the one made by Gibbs and Chen [128], who erroneously pointed out the number of populations and the extent of the distribution. It is a protected taxon in Mexico and Guatemala. The seed wing must be removed in order to break dormancy. Germination is high (over 80%) and viability in storage is limited (less than seven months). Seedlings are vulnerable to herbivory and drought. **Synonyms:** *Acer mexicanum* (DC.) Pax, *A. serratum* Pax, *Negundo mexicanum* DC. **Common names:** *acecinte, acezintle, amargoso, arce mexicano, ceibillo, granado, icoj, kantela, palo blanco, palo de azúcar, palo de caballo*, *palo de vinagre, zarcillo*. The trees are used in hedges. The wood is soft and is used for fence construction and for making traditional Christmas scenes.
Elevational range: 800–3,200 m
Assessors: YVR, MGE
Refs: [4, 36, 76, 115, 128, 135, 229, 279, 309]

Acer skutchii Rehder
VU B1ab(i,ii,iii,iv,v)
Mexico (TAM, JAL, GRO, CHS), Guatemala
Exclusive to cloud forest. Nearly endemic to Mexico, *TROPICOS* lists only one specimen from Guatemala. This species is found along streams, often in ravines. Known from eight disjunct populations, five in Mexico and three in Guatemala. In Mexico it is known from Jalisco (two populations), Tamaulipas, Guerrero, and Chiapas (one population each); in Guatemala it is known from Sierra de las Minas (two populations) and El Quiché; specimens from Coahuila cited in Jardel-Peláez *et al*. [178] are misidentifications. The species merits Vulnerable status given that the extent of the distribution is less than 20,000 km^2, and contains fragmented populations in no more than 10 locations. This category updates a recent assessment by Gibbs and Chen [128] as Endangered, which erroneously pointed out the number and location of populations, as well as the extent of the distribution. It is a protected species in Mexico and Guatemala. Four populations are included in Biosphere Reserves and one is proposed for its inclusion in a state park. Forest fires and establishment of coffee plantations and corn fields are the main threats for populations. **Synonym:** *Acer saccharum* Marshall subsp. *skutchii* (Rehder) A.E.Murray. **Common names:** *álamo plateado, algodoncillo*. Mechanic dormancy can be overcome by removing the seed wing. Used as a source of firewood in

parts of Mexico (Chiapas), and never observed as a source of sugar or for construction as was reported by Gibbs and Chen [128].
Elevational range: 1,260–2,300 (2,600) m
Assessor: YVR
Refs: [76, 79, 128, 137, 178, 251, 279, 300, 301, 348–350, 356, 420–422, 429]

Billia hippocastanum Peyr.
VU A2d; B2ab(ii,iii)
Mexico (VER, GRO, OAX, CHS), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
A small or medium-sized tree, up to 25 m tall. A species restricted to mature, undisturbed cloud forest. Usually recorded in relatively low densities. **Synonym:** *Aesculus mexicana* Benth. & Hook.f. ex Hemsl. **Common names:** *castaño de la sierra, hueljalau, jaboncillo*. A species valued for its timber.
Elevational range: 550 (1,500)–2,900 m
Assessors: Expert Group May 2007
Refs: [207, 241, 347, 381]

Cupania mollis Standl.
NT
Mexico (VER, OAX, CHS), Guatemala, El Salvador
A medium-sized tree, up to 15 m tall. Not restricted to cloud forest, this species also occurs in lowland tropical forests.
Elevational range: 220–1,500 (1,790) m
Assessors: JCS, SAC, MGE
Refs: [279, 382]

Sapotaceae

Sideroxylon contrerasii (Lundell) T.D.Penn.
VU B1ab(iii)
Mexico (QRO, HGO, PUE, VER, OAX), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized or sometimes a large tree, 6–10 (rarely 40) m tall and trunk up to 70 cm in diameter. Occasionally found in cloud forest and oak forest, more often in tropical rainforest. **Synonyms:** *Bumelia contrerasii* Lundell, *Dipholis contrerasii* (Lundell) Lundell, *Pouteria odorata* Lundell. **Common names:** *Cquej, quej, tempiste*.
Elevational range: (100) 800–1,800 m
Assessors: GIM, GCT
Refs: [56, 279, 281, 284]

Sideroxylon portoricense Urb. subsp. ***minutiflorum*** (Pittier) T.D.Penn.
VU A4c
Mexico (JAL, VER, MEX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Tall canopy tree, reaching 20–40 m in height and trunk up to 150 cm in diameter. This subspecies is common in cloud forest but also found in tropical rainforest, tropical evergreen forest and tropical semi-evergreen forest. In drier forest types it is restricted to humid sites. **Synonyms:** *Bumelia matudae* (Lundell) Stearn, *B. minutiflora* (Pittier) Baehni, *B. tabascensis* Lundell, *Dipholis matudae* (Lundell) Lundell, *D. minutiflora* Pittier. **Common names:** *pionche, zapote prieto, zapotillo*. Timber tree; the wood also is used as firewood.
Elevational range: (0) 300–2,100 m
Assessors: FLH, GIM, JAM, MGE
Refs: [79, 174, 225, 279, 283, 295, 351, 356]

Scrophulariaceae

Buddleja cordata subsp. ***ovandensis*** (Lundell ex. E.M.Norman) E.M.Norman
EN A4c; B1ab(iii)
Mexico (CHS)
This subspecies has a restricted distribution to cloud forest. Only known from a few southern localities on the Northern Mountains and the Sierra Madre of Chiapas. **Synonym:** *B. ovandensis* Lundell ex E.M.Norman.
Elevational range: 1,700–2,000 m
Assessors: LLM, SAR
Refs: [3, 270, 398]

Buddleja megalocephala Donn.Sm.
EN A4c; B1ac(ii)
Mexico (CHS), Guatemala
Restricted to open stands in cloud forest areas. Only known from the Tacaná Volcano at the Mexico-Guatemala border and in the Sierra de Los Cuchumatanes in Guatemala. **Synonyms:** *Buddleja hypsophila* I.M.Johnst., *Buddleja megalocephala* Donn.Sm fo. *albilanata* Moldenke.
Elevational range: 2,700–3,200 (4,000) m
Assessors: LLM, SAR, MGE
Refs: [3, 270, 398]

Buddleja skutchii C.V.Morton
VU B2ab(iii)
Mexico (CHS), Guatemala, Costa Rica, Panama
A secondary species marginal to cloud forest, mostly found in pine-oak forest. In Mexico it is known from many specimens collected in Chiapas at the Central Plateau and the Sierra Madre. It possibly hybridizes with *Buddleja crotonoides* A. Gray in part of its range in central Chiapas. **Synonym:** *Buddleja matudae* Standl.
Elevational range: (1,300) 1,700–3,200 (3,600) m
Assessors: LLM, SAR, MGE
Refs: [3, 135, 270, 398]

Siparunaceae

Siparuna gesneriodes (Kunth) A.DC.
VU B1ab(iii)
Mexico (VER, GRO, OAX, CHS), Costa Rica, Panama, Colombia, Venezuela
Shrub or small tree, 3-6 (10) m tall. This species is marginal to cloud forest, more frequently found in tropical semi-evergreen forest and tropical rainforest. **Synonyms:** *Siparuna austromexicana* Lorence, *S. scandens* Lorence.
Elevational range: 300–1,600 m
Assessor: FLH
Ref: [315]

Solanaceae

Cestrum oblongifolium Schltdl.
NT
Mexico (NL, TAM, SLP, HGO, VER, MEX, PUE, OAX)
Shrub or small tree, up to 5 m tall. A relatively common species in cloud forest, it is also found in pine-oak forest, pine forest and oak forest. Occasionally present in montane rainforest. **Synonyms:** *Cestrum decurrens* Francey, *C. ehrenbergii* Dunal, *C. multinervium* Dunal. This species could be used as an ornamental plant.
Elevational range: (750) 1,000–2,300 m
Assessor: JAM
Ref: [261]

Solanum brevipedicellatum K.E.Roe
EN A4c
Mexico (JAL, COL, CHS), Guatemala
Large shrub to medium-sized tree, up to 20 m tall. This taxon occurs mostly in cloud forest but it can also be found in pine-oak forest, rarely in tropical dry forest. Its geographical range is notoriously disjunct, with a western population at the limits of Jalisco and Colima, and several eastern populations in Chiapas and Guatemala.
Elevational range: (800) 1,200–2,400 m
Assessor: JAM
Ref: [278]

Staphyleaceae

Turpinia insignis (Kunth) Tul.
EN A4c
Mexico (HGO, VER, PUE, GRO, OAX, CHS), Guatemala
Large shrub or small to medium-sized evergreen tree, up to 15 m tall but usually less than 10 m. Nearly endemic to Mexico, there are a few records from neighbouring areas in Guatemala. Mostly a cloud forest specialist, this species is very rare in lowland vegetation. **Synonym:** *Lacepedea insignis* Kunth. **Common name:** *huevo de gato*.
Elevational range: (250) 1,000–2,750 m
Assessor: JAM
Refs: [126, 209, 279, 333, 367, 445]

Turpinia occidentalis (Sw.) G.Don subsp. ***occidentalis***
NT
Mexico (TAM, NAY, JAL, QRO, HGO, VER, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized to large tree, 12–25 m tall. In Mexico only known from a few cloud forest localities; this taxon is more common in lowland forests. **Synonyms:** *Turpinia paniculata* Vent., *Staphylea heterophylla* Ruiz & Pav. Synonyms of the species (not of the subspecies) are *Turpinia paniculata* Vent. and *T. pinnata* (Schltdl.) Hemsl. **Common names:** *chijilte te, manzanillo, manzanito, palo verde, shauc, zarzafrán*.
Elevational range: (700) 1,000–1,800 (3,000) m
Assessors: JAM, GIM, GCT
Refs: [4, 11, 55, 58, 79, 137, 149, 174, 180, 207, 225, 229, 236, 238, 278, 295, 300, 301, 309, 333, 348, 356, 367]

Turpinia parvifoliola L.O.Williams
CR A4c
Mexico (CHS), Guatemala
Large shrub or small tree, up to 10 m tall. A very narrow endemic, in Mexico, this species occurs only in areas located in the vicinity of the Guatemalan border. This taxon is a cloud forest specialist.
Elevational range: c. 2,300 m
Assessor: JAM
Ref: [279]

Turpinia tricornuta Lundell
CR A4c
Mexico (GRO[?], CHS), Guatemala
Medium-sized tree, up to 11 m tall. This species is a strict cloud forest specialist with a very small geographical range. **Common name:** *chijilte te*.
Elevational range: 1,300–3,000 m
Assessor: JAM
Refs: [115, 279, 309]

Styracaceae

Styrax conterminus Donn.Sm.
EN B2ab(iii,iv,v); C2a(i)
Mexico (GRO, OAX, CHS), Guatemala, Honduras, El Salvador
An evergreen medium-sized tree, up to 18 m tall. A rather scarce species in cloud forest it is also found in pine-oak forest. It has been collected in fewer than ten localities on the Sierra Madre del Sur. Its habitat has suffered severe degradation in recent decades.
Elevational range: 2,200–2,800 m
Assessors: NRM, MGE
Refs: [96, 116–118]

Styrax glabrescens Benth.
VU A1cd; C2a(i); D1
Mexico (TAM, SLP, QRO, HGO, VER, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica
Marginal in cloud forest, this species is more common in vegetation at lower elevation and in pine-oak forest. Present in secondary vegetation, on banks of waterways and on steep slopes. **Synonyms:** *Styrax glabrescens* var. *pilosus* Perkins, *S. guatemalensis* Donn.Sm., *S. pilosus* (Perkins) Standl., *S. vestitus* Lundell. **Common names:** *azahar de monte, capulín, sajarillo*.
Elevational range: 500–2,600 m
Assessors: NRM, MGE
Refs: [4, 58, 116–118, 126, 207, 209, 229, 236, 363, 445]

Styrax magnus Lundell
EN B2ab(iii,iv,v); C2a(i); E
Mexico (CHS), Guatemala
A scarce large evergreen tree, up to 26 m tall. Endemic to high elevation cloud forest and oak forest in Chiapas and Guatemala. Isolated populations with few mature individuals. To obtain viable seeds the fruit should be exposed to lukewarm water or fermented in plastic bags for 4–7 days immediately after removal from the tree. Seeds are recalcitrant and seedlings can be readily obtained from them. Seedlings survive and grow well in shrublands but not in open areas. **Synonym:** *Styrax vulcanicola* Standl. & Steyerm. Some authors consider it as a synonym of *Styrax argenteus* C.Presl. and *S. argenteus* var. *hintonii* (Bullock) Gonsoulin.
Elevational range: 1,700–2,700 (3,000) m
Assessors: NRM, MGE
Refs: [116–118, 307, 309]

Styrax radians P.W.Fritsch
NT
Mexico (SIN, NAY, JAL, COL, MEX, GRO, OAX, CHS)
Medium-sized evergreen tree, up to 20 m tall. A common cloud forest component, this tree is also found in oak forest, tropical semi-evergeen forest, tropical dry forest and oak savannas. Large populations have been reported from Nayarit and Jalisco states, however, significant deforestation has occurred through much of its range. Valley bottoms are the preferred habitat of this species. **Common names:** *aguacatillo, azagar, cortapico, levadura, mamuyo, zajar*. Its tough, durable wood is used for ox yokes and plows.
Elevational range: 400–1,640 m
Assessor: JAM
Refs: [116, 117, 277]

SYMPLOCACEAE

Symplocos breedlovei Lundell
EN A2c
Mexico (CHS), Guatemala
Large shrub or small tree, up to 10 m tall. This scarce cloud forest species is endemic to Chiapas and Guatemala.
Elevational range: (1,200) 2,200–3,100 m
Assessors: ILV, JAM
Refs: [187, 279]

Symplocos citrea Lex. ex La Llave & Lex.
NT
Mexico (NAY, JAL, GTO, COL, MIC, MEX, DF, MOR, GRO, OAX)
Small to medium-sized tree, up to 15 m tall. In addition to cloud forest, this species also occurs in pine forest and oak forest. **Synonyms:** *Symplocos prionophylla* Hemsl., *S. pringlei* Rob. **Common names:** *aile, ambaro, chico, chocoyolillo, cucharo, garrapato, jaboncillo, jaboncillo blanco, mamuyo, memelita, palo blanco, tchcari-urapiti, urapít ucu, uruapiti akun*. The wood of this species is used for making handicrafts and small pieces of furniture, and apparently the fruit is edible.
Elevational range: 1,350–2,650 m
Assessors: GIM, JAM
Refs: [2, 37, 76, 79, 93, 146, 166, 180, 207, 213, 348, 351, 356, 357, 429]

Symplocos coccinea Bonpl.
EN A4c; B1ab(iii)
Mexico (HGO, PUE, VER, OAX)
Small tree, up to 12 m tall. A Mexican endemic, this species is considered to be a rare component of cloud forest and pine-oak forest. **Common name:** *limoncillo.*
Elevational range: 1,100–2,450 m
Assessors: ILV, JAM
Refs: [126, 209, 445]

Symplocos excelsa L.O.Williams
EN A4c; B1ab(iii)
Mexico (VER, OAX, CHS)
Medium-sized to large tree, up to 24 m tall. A cloud forest species, it also occurs in lower montane rainforest.
Elevational range: (600) 1,200–1,700 m
Assessors: ILV, JAM
Ref: [187]

Symplocos hartwegii A.DC.
EN A4c; B1ab(iii)
Mexico (CHS), Guatemala, Honduras
Small tree, up to 9 m tall. The occurrence of this species is restricted to cloud forest.
Elevational range: 2,000–3,100 m
Assessors: ILV, JAM
Refs: [187, 279, 363]

Symplocos johnsonii Standl.
EN A4c; B1ab(iii)
Mexico (VER, OAX, CHS), Guatemala
Medium-sized to large tree, up to 22 m tall. This is typically a cloud forest species but it is also present in lower montane rainforest.
Elevational range: 850–1,850 m
Assessors: ILV, JAM
Refs: [187, 279]

Symplocos limoncillo Bonpl.
VU A4c; B1ab(iii)
Mexico (VER, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized tree, up to 20 m. A cloud forest species but also in oak forest and moist pine-oak forest. **Synonyms:** *Styrax limoncillo* (Bonpl.) Miers., *Symplocos flavifolia* Lundell. **Common names:** *garrapatilla, limoncillo, limoncillo amarillo.*
Elevational range: (350) 700–2,400 m
Assessors: ILV, JAM
Refs: [4, 133, 135, 187, 225, 279, 302, 309]

Symplocos longipes Lundell
EN A4c; B1ab(iii)
Mexico (VER, GRO, OAX, CHS), Guatemala
Shrub or medium-sized tree, up to 20 m tall. A typical cloud forest species.
Elevational range: (1,400) 2,000–2,800 m
Assessors: ILV, JAM
Refs: [187, 279]

Symplocos matudae Lundell
EN A4c; B1ab(iii)
Mexico (CHS), Guatemala, El Salvador, Honduras, Nicaragua
Large shrub or small tree, up to 8 m tall. A scarce species, mostly found in cloud forest but occasionally occurs in pine-oak forest. **Synonyms:** *Symplocos chiapensis* Lundell, *S. vernicosa* L.O.Williams.
Elevational range: (700) 1,250–2,400 m
Assessors: ILV, JAM
Refs: [187, 279, 431]

Symplocos novogaliciana L.M.González
EN B1ab(iii)
Mexico (NAY, JAL, COL)
Medium-sized to large tree, 15-20 (35) m and trunk up to 70 cm in diameter. This species is not restricted to cloud forest but is also found in fir forest and pine-oak forest, often on hillsides or along ravines. Close to *S. citrea* Lex. **Common names:** *cucharo, garrapato, limoncillo*.
Elevational range: (900) 1,200–2,300 m
Assessors: GIM, GCT
Refs: [146, 278]

Symplocos pycnantha Hemsl.
EN A4c; B1ab(iii)
Mexico (HGO, VER, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua
This exclusive and rare cloud forest species has an uncertain taxonomic status. **Common name:** *palo de agua*.
Elevational range: (950) 1,100–2,850 m
Assessors: ILV, JAM
Refs: [187, 225]

Symplocos sousae F.Almeda
EN B1ab(iii)
Mexico (JAL, OAX)
Shrub or small tree, (1) 5-7 m tall. This species occurs in cloud forest, frequently in ravines and along streams, surrounded by pine-fir forest and pine-oak forest. **Common names:** *tunihia, tu-nihia*. The fruit is edible in Oaxaca. This tree has attractive red flowers and could be used as an ornamental plant.
Elevational range: 2,500–2,760 m
Assessors: GIM, GCT
Ref: [146]

Symplocos tacanensis Lundell
CR A4c; B1ab(iii)
Mexico (CHS), Guatemala[?], El Salvador
Small to medium-sized tree, 9–19 m tall. This species is a cloud forest specialist and it has a very restricted geographical range. In Mexico it is only known from areas located in the close vicinity of the Guatemalan border, on the northern slopes of the Tacaná volcano.
Elevational range: 2,100–2,420 m
Assessors: ILV, JAM
Refs: [187, 279]

TAXACEAE

Taxus globosa Schltdl.
EN A4c
Mexico (NL, TAM, SLP, QRO, HGO, VER, PUE, OAX, CHS), Guatemala, El Salvador, Honduras
Shrub or medium-sized tree, up to 15 m tall. This taxon is scarce and is found in low and middle tree layers of cloud forest, oak forest, and pine-oak forest; it shows a strong preference for moist and shaded ravines. **Synonym:** T*axus baccata* L. subsp. *globosa* (Schltdl.) Pilg. **Common names:** *granadillo, palmira, romerillo, tlatscal*. This species is particularly important in the pharmaceutical industry owing to the presence of taxol, a secondary compound with antioncogenic properties. Sometimes used as an ornamental. Wood is used for timber and to make charcoal.
Elevational range: 1,000–3,000 (3,350) m
Assessors: ILV, JAM
Refs: [4, 58, 69, 137, 225, 266, 300, 301, 360, 431, 448]

THYMELAEACEAE

Daphnopsis flavida Lundell
EN B1ab(iii)
Mexico (VER[?], CHS)
Small tree, up to 5 (rarely 12) m tall. In addition to cloud forest, this species is also a tropical rainforest component; in both communities it seems to be rare, as it is known from very few collections.
Elevational range: (150) 2,000–2,300 m
Assessor: FLH
Ref: [330]

Daphnopsis malacophylla Standl. & Steyerm.
VU B1ab(iii)
Mexico (CHS), Guatemala, El Salvador, Honduras
Shrub or small tree, 3–6 m tall. Mostly found in cloud forest.
Elevational range: 2,000–2,400 m
Assessor: FLH
Ref: [330]

Daphnopsis mollis (Schltdl. & Cham.) Standl.
VU B1ab(iii)
Mexico (TAM, SLP, QRO, HGO, VER, CHS, QTR)
Shrub or small tree, 5-8 (15) m tall. Rare in cloud forest, frequently found in tropical semi-evergreen forest, oak forest and tropical dry forest. Plants from Quintana Roo might be a different species. **Synonyms:** *Daphne bonplandiana* var. *mollis* Schltdl. & Cham., *Daphnopsis bonplandiana* var. *mollis* (Schltdl. & Cham.) Meisn. **Common names:** *coni, coni de ardilla, coni de mora, coni de zorra, jonote, jonote de ardilla*.
Elevational range: (5) 800–1,700 m
Assessor: FLH
Refs: [38, 58, 264, 330]

Daphnopsis tuerckheimiana Donn.Sm.
VU B1ab(iii)
Mexico (VER, CHS), Guatemala
Shrub or small tree, 3–5 m tall. Mostly found in cloud forest and rare in tropical rainforest (Veracruz). This species is included in this list with hesitation, since it has not been recorded in Mexico as a tree.
Elevational range: 500–2,100 m
Assessor: FLH
Refs: [264, 330]

TICODENDRACEAE

Ticodendron incognitum Gómez-Laur. & L.D.Gómez
NT
Mexico (OAX), Guatemala, Honduras, Nicaragua, Costa Rica, Panama
Medium-sized to large tree, up to 25 m tall. A scarce species in old-growth, very humid cloud forest. It usually occurs at very low densities, yet there are some locations where it is fairly abundant, forming nearly pure stands. In Mexico it occurs at relatively high elevations compared to Central American populations, and it is only known from small areas in La Chinantla and Los Chimalapas regions of Oaxaca state. The taxonomic position of this tree has attracted the attention of botanists since it was first described in 1989; in fact its familial ascription was solved two years later with the description of the new family Ticodendraceae. **Common names:** *almendras kup, durazno de ardilla, durazno de monte, ma*^{L} *'u' gwii*^{LH}. This species is used in rural construction and as a source of firewood.
Elevational range: (500) 850–2,250 (2,800) m
Assessor: JAM
Refs: [9, 131, 160, 222, 235, 237, 333, 431]

ULMACEAE

Ulmus mexicana (Liebm.) Planch.
EN A2cd; B2ab(ii,iii,v); C1
Mexico (SLP, QRO, HGO, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Very large deciduous tree, up to 87 m, more often c. 50–70 m tall, and trunk up to 6 m in diameter. An extremely scarce cloud forest species, it also occurs in oak forest, tropical semi-evergreen forest and tropical rainforest, usually near streams. Its native habitat has been largely cleared for coffee cultivation. Individuals of this taxon are characterized by having a long, branch-free and very straight trunk. This species is believed to be the tallest tree growing in Mexico. **Synonym:** *Chaetoptelea mexicana* Liebm. **Common names:** *baqueta, cempoalebatl, cempoaléhuatl, chaperna, chaperno, chuchum, cuero, cuerillo, ilite, mezcal, moreno, noculpat, nuculpat, olmo, olmo mexicano, palo baqueta, palo de baqueta, palo de huarache, palo rey, papalote, petatillo, quebracho, quiebra hacha, sacpucté, sacpcaché, sapuché, tirrá, tlacacuáhuitl, tza, tzapasnaca, zempaléhuatl*. Used for timber (poles and rural construction) and other multiple purposes, such as high quality pieces of turned wood and wooden packaging, In the past the bark was used for making sandal soles.
Elevational range: 150–2,150 m
Assessors: JAM, Expert Group May 2007
Refs: [58, 174, 180, 207, 225, 241, 259, 279, 285, 287, 309, 445]

URTICACEAE

Coussapoa purpusii Standl.
EN A4c
Mexico (NAY, JAL, VER, COL, GRO, CHS), Guatemala, Panama
Dioecious, hemi-epiphytic or terrestrial tree, 4–20 m tall. This species occurs in cloud forest but is more often found in tropical rainforest and tropical semi-evergreen forest, frequently in riparian habitats. **Common names:** *hutapil, tescalamilla, tescalamillo*.
Elevational range: 160–1,700 m
Assessors: GIM, GCT
Refs: [19, 60, 279]

Myriocarpa bifurca Liebm.
NT
Mexico (OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica
Shrub or small tree, up to 6 m tall. Species found in secondary vegetation derived from cloud forest but also occurs in tropical semi-evergreen forest, frequently in riparian habitats. Also reported from shade coffee plantations. **Synonym:** *Myriocarpa malacophylla* B.L.Rob. & Bartlett.
Elevational range: 100–1,300 m
Assessors: GIM, GCT
Refs: [209, 243, 279]

Urera martiniana V.W.Steinm.
CR A4c
Mexico (TAM, SLP[?], QRO, HGO)
Shrub or small tree, 1–4 m tall. This species occurs in cloud forest, pine-oak forest, tropical semi-evergreen forest and tropical dry forest. **Common names:** *mala mujer, ortiga*.
Elevational range: 350–1,450 m
Assessors: GIM, GCT
Ref: [386]

Urera pacifica V.W.Steinm.
NT
Mexico (SIN, NAY, JAL, COL, MIC, MEX, GRO, OAX)
Shrub or small tree, 2–7 m tall. Mainly occurs in tropical dry forest and occasionally found in pine-oak forest and cloud forest. **Common names:** *chichicaste, mala mujer, ortiga, ortiga blanca, ortigo, ortigo blanco, ortigo colorado, quemador, quemadora.*
Elevational range: 80–1,600 (2,400) m
Assessors: GIM, GCT
Refs: [76, 386]

VERBENACEAE

Citharexylum bourgeauianum Greeman
EN A2c; B1ab(iii)
Mexico (VER)
A medium-sized tree, up to 15 m tall. This species occurs in cloud forest and also in tropical rainforest at lower elevations. Apparently endemic to Veracruz. Its habitat has undergone, and continues to have, severe changes in land use.
Elevational range: 400–1,200 m
Assessors: MGE, NRM
Refs: [256]

Citharexylum hidalgense Moldenke
NT
Mexico (SLP, QRO, HGO, VER, PUE)
A small tree, up to 8 m tall, more frequently a shrub. A cloud forest species, but also found in humid oak and pine forests of the Sierra Madre Oriental of eastern Mexico. Sometimes locally abundant on slopes, in protected ravines, gorges and near streams. Also found in disturbed forest stands and nearby agricultural fields. Reports from Zacatecas and Michoacán are probably misidentifications. The threats it faces are related to the loss of forest cover owing to land-use change and its fragmented distribution. **Common names:** *capulín de zorro, palo pegativo, prendedor, retoñador, retoñadora, tres lomos, uva cimarrona*.
Elevational range: 1,200–2,400 (2,940) m
Assessors: MGE, NRM
Refs: [4, 76, 256, 342]

Citharexylum hintonii Moldenke
EN A4c
Mexico (MEX, CHS)
A small tree, up to 5–8 m tall, sometimes reported as a climbing tree or a liana. Known from only three localities with a striking disjunct distribution (two in the central part of the country and the other in the Northern Mountains region of Chiapas). Present in secondary growth derived from cloud forest. **Common name:** *chichalaco, chichaloco*.
Elevational range: 610–2,050 m
Assessors: LSV, RPG, MGE, NRM
Ref: [29]

Citharexylum ligustrinum Van Houtte ex Dippel
VU A4c
Mexico (QRO, HGO, VER, PUE)
A shrub or small tree, up to 12 m tall. This species occurs in cloud forest; sometimes locally abundant but not evenly throughout its range; also in oak forest and pine-oak forest. Present in protected gorges and ravines but also in secondary vegetation; in thickets. Endemic to eastern Mexico. Introduced into Europe in the 19th century and cultivated in several botanical gardens. **Synonym:** *Citharexylum pringlei* Greenm. **Common name:** *altitlila*.
Elevational range: 1,500-1,900 (2,270) m
Assessors: MGE, NRM
Refs: [256, 342]

Citharexylum steyermarkii Moldenke
CR B1ab(i)
Mexico (VER, CHS), Guatemala
Small tree, 3–8 m tall. A rare species that is restricted to high elevation very humid cloud forest. In Mexico only known from two localities, one in each state. Severe deforestation has occurred in most of its range.
Elevational range: 1,500–2,600 m
Assessors: LSV, RPG, MGE
Refs: [129, 279]

Lippia umbellata Cav.
NT
Mexico (JAL, VER, MEX, GRO, CHS), Guatemala, Belize, El Salvador, Honduras, Costa Rica, Panama
Shrub or small tree, up to 12 m tall. This species occurs in cloud forest, oak forest, pine-oak forest and secondary vegetation. A complex species closely related to *Lippia myriocephala* Schltdl. & Cham. **Synonyms:** *Lippia callicarpifolia* Kunth, *L. jaliscana* Moldenke, *L. pringlei* Briq.
Elevational range: 900–2,300 m
Assessors: GIM, GCT
Refs: [256, 279]

WINTERACEAE

Drimys granadensis L.f. var. ***mexicana*** (DC.) A.C.Sm.
VU A4c; B1ab(iii)
Mexico (VER, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, up to 12 m tall. A typical mature cloud forest species, it also grows in humid oak forest and pine-oak forest, mostly in riparian habitats of protected ravines. There are numerous specimens deposited in herbaria, probably owing to its attractive large, white flowers. The species is widespread but this variety has a more restricted range. In Mexico it often forms very small populations, all of which seem to be threatened by habitat destruction. The taxon has been repeatedly cited in floristic and ecological literature with its generic epithet misspelled as "*Drymis*". **Synonyms:** *Drimys mexicana* DC., *D. winteri* J.R.Forst & G.Forst. **Common names:** *al-ca-puc, cashiquec, chachaca, chililllo, palo picante, palo de chile, yaga-bziga, vaya-yiña.*
Elevational range: 1,050–3,300 m
Assessors: SAC, JAM, Expert Group May 2007
Refs: [1, 43, 124, 135, 180, 225, 228, 236, 279, 302, 325, 335, 347, 363]

Species evaluated as least concern

Actinidiaceae

Saurauia yasicae Loes.
LC
Mexico (VER, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Bolivia
An understorey and mid-canopy tree, up to 27 m tall and trunk up to 25 cm in diameter. This species is not restricted to cloud forest as it is also found in tropical rainforest. Widely distributed in Veracruz and Chiapas and also present in a few sites in Oaxaca and Tabasco. **Synonyms:** *Saurauia belizensis* Lundell, *S. herbert-smithii* Rusby, *S. pseudopittieri* Buscal., *S. smithiana* Buscal., *S. zetekiana* Standl. **Common name:** *melaza*. Fruit is edible.
Elevational range: (45) 300–1,300 (1,920) m
Assessors: SAC, MGE
Refs: [126, 171, 173, 185, 279, 361]

Adoxaceae

Sambucus nigra L. subsp. ***canadensis*** (L.) Bolli
LC
Canada, United States, Mexico (SON, CHI, COA, NL, NAY, TAM, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Small tree, 3–12 m tall. This sub-specific taxon occurs in cloud forest but also grows in pine forest, fir forest and pine-oak forest. Also found in secondary forest and cultivated land. Introduced in several countries in South America and the Caribbean region. **Synonyms:** *Sambucus bipinnata* Schltdl. & Cham., *S. canadensis* L., *S. mexicana* C.Presl ex DC.). **Common names:** *azumiatl, bixhumi, cumdumba, sauco, sauco rojo, shiiksh, xumetl, yutnucate*. The flowers are used medicinally for their sudorific and diuretic properties. Leaves are sometimes used for treating headaches.
Elevational range: (200) 1,000–3,000 m
Assessors: FLH, Expert Group May 2007
Refs: [4, 58, 70, 71, 76, 79, 96, 126, 207, 209, 228, 229, 254, 295, 378, 435, 437]

Viburnum hartwegii Benth.
LC
Mexico (VER, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua
Small tree, 2–7 m tall. Cloud forest is the preferred habitat of this species.
Elevational range: (700) 1,200–1,700 (2,800) m
Assessor: FLH
Refs: [79, 351, 356, 357, 429]

Altingiaceae

Liquidambar styraciflua L.
LC
United States, Mexico (NL, TAM, SLP, QRO, HGO, VER, MIC, DF, MOR, PUE, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica
A large tree, up to 40 m tall or more and trunk up to 150 cm in diameter. This species is widely distributed and abundant in the canopy of cloud forest, but also present in oak forest and pine-oak forest, and co-dominant in pine-oak-*Liquidambar* forest. It regenerates well in open areas and in forest edges derived from agricultural use and grows rapidly in forest restoration plantations. Widely planted in urban areas as an ornamental and shade tree. **Synonyms:** *Liquidambar barbata* Stokes, *L. gummifera* Salisb., *L. macrophylla* Oerst., *L. styraciflua* var. *mexicana* Oerst. **Common names:** *bálsamo, biito, copalillo, copalme, cozote, estoraque, icob, ien-gau-uo, ingamo, liquidámbar, maripenda, molá, nabá, nijté-pijto, nite-biito, ococote, ocozote, quirámbaro, quirámboro, somerio, so té, sots-té, suchete, toshcui, tzoté, xochiocotzocuahuitl, xochiocótzotl, yagabizigui, yaga-huille*. Balsam from the trunk has medicinal uses. It is also used to make soap, cosmetics, and incense. It is a source of fuelwood and its timber is used for rural constructions, railroad ties, furniture, tool handles, veneer, and pulp for paper.
Elevational range: (450) 600–1,500 (2,100) m (at sea level in the SE United States)
Assessors: NRM, MGE
Refs: [4, 11, 16, 43, 54, 58, 126, 135, 137, 209, 213, 228, 229, 241, 279, 285, 295, 300, 301, 305, 306, 308, 309, 333, 438, 452]

Annonaceae

Rollinia mucosa (Jacq.) Baill.
LC
Mexico (VER, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Medium-sized tree, up to 25 m tall. This species is marginal to cloud forest as its prefered habitat is tropical rainforest and tropical evergreen forest. **Synonym:** *Rollinia jimenezii* Saff. **Common names:** *anonilla, chirimolla*. The edible fruit of this species is highly valued because of its good flavour.
Elevational range: 180–1,300 (1,500) m
Assessors: JAM, GIM, SVA, ILV
Refs: [173, 219, 225, 358]

Sapranthus violaceus (Dunal) Saff.
LC
Mexico (SIN, JAL, COL, GRO, OAX), Guatemala, El Salvador, Honduras, Nicaragua
Small tree, up to 9 m tall. Although this species normally grows in cloud forest it is also known from tropical evergreen forest, tropical semi-evergreen forest and tropical dry forest at lower elevations. **Synonym:** *Sapranthus foetidus* (Rose) Saff.
Elevational range: 20–1,500 m
Assessors: LSV, RPL, JAM, GIM
Refs: [279, 351, 358]

Stemmadenia tomentosa Greenm.
LC
Mexico (SON, CHI, SIN, NAY, JAL, HGO, VER, COL, MIC, PUE, GRO, OAX, CHS)
Medium-sized tree, up to 10 m tall. A widespread yet Mexican endemic species, this taxon is found in many forest formations including cloud forest, but most frequently occurs in vegetation at lower elevations, particularly in riparian habitats. **Common names:** *berraco, tapaco, peiche*.
Elevational range: 0–1,780 m
Assessors: GIM, JAM
Refs: [188, 225, 279, 351]

Tabernaemontana alba Mill.
LC
Mexico (SIN, TAM, SLP, JAL, VER, QRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Peru, Argentina, Cuba.
Small to medium-sized tree, up to 8 (rarely 15) m tall. This species is widely distributed in lowland and montane regions of Mexico but its presence in cloud forest is marginal. In fact, this tree tends to be more abundant in tropical evergreen and tropical rainforests of the lowlands. **Synonym:** *Tabernaemontana chrysocarpa* S.F.Blake. **Common names:** *abat, cojón de perro, chichihualcaxtli, cojón de gato, huevo de gato, laurel blanco, lecherillo, mhag-caha, tábat*.
Elevational range: 0–1,200 m
Assessors: JAM, SVA, ILV
Refs: [76, 173, 225, 247, 279]

Vallesia glabra (Cav.) Link
LC
Mexico (BC, BCS, SON, QRO, HGO, MIC, PUE, GRO, OAX), Colombia, Ecuador, Peru, Bolivia, Argentina, Paraguay, Bahamas, Cuba
Shrub or small tree, up to 12 m tall. In Mexico it is a typical cloud forest species but it also occurs frequently in drier pine-oak forest. **Synonyms:** *Rauvolfia glabra* Cav., *Vallesia cymbifolia* Ortega, *V. dichotoma* Ruiz & Pav.
Elevational range: 1,500–2,600 m
Assessor: JAM
Refs: [180, 451]

AQUIFOLIACEAE

Ilex brandegeana Loes.
LC
Mexico (NL, SIN, DGO, SLP, NAY, JAL, GTO, MIC, MEX, MOR, GRO, OAX, CHS), Guatemala, El Salvador, Honduras
Medium-sized tree, 8–25 m tall, apparently dioecious. In addition to cloud forest, this species can also be found in oak forest and pine-oak forest. **Synonyms:** *Ilex triflora* Brandegee not *I. triflora* Blume, *I. californica* Brandegee. **Common names:** *frutilla, junco serrano, palo blanco, tchcari urapiti, zapotillo*. The wood is excellent for the manufacturing of guitars.
Elevational range: (500) 1,400–2,800 m
Assessors: GIM, ECG, GCT, SAC
Refs: [53, 71, 76, 79, 96, 142, 279, 348, 356, 357, 380, 428, 429]

Ilex condensata Turcz.
LC
Mexico (QRO, VER, PUE, OAX, TAB, CHS)
Small tree, 2–4 (8) m tall, apparently dioecious. A frequent cloud forest element, this species also occurs in oak, pine, pine-oak and tropical evergreen forest. **Synonym:** *Ilex ambigua* (Michx.) Torr. var. *condensata* (Turcz.) Loes.
Elevational range: 1,200–1,950 m
Assessors: GIM, ECG, GCT, SAC
Refs: [53, 58]

Ilex discolor Hemsl. var. ***tolucana*** (Hemsl.) Edwin ex T.R.Dudley
LC
Mexico (BCS, SON, CHI, NL, TAM, SIN, DGO, SLP, NAY, JAL, GTO, QRO, HGO, VER, MIC, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras
Tree, 2–20 (30) m tall, apparently dioecious. This taxon is frequently found in cloud forest, oak forest, pine forest, pine-oak forest and secondary communities. **Synonyms:** *Ilex californica* Brandegee, *I. tolucana* Hemsl., but see Carranza González [53] and González-Villarreal [142], who recognize this taxon as a valid species. **Common names:** *aceitunillo, coralillo, limoncillo, mo-la-hé, palo de caza, palo extraño, palo prieto, palo verde, tepezapote*. The wood is used in rustic buildings and for the manufacturing of musical instruments. Fruit is edible.
Elevational range: 1,000–3,000 m
Assessors: GIM, ECG, GCT, SAC
Refs: [4, 53, 58, 76, 115, 126, 137, 142, 180, 229, 277, 279, 295, 300, 301, 335, 356, 445]

Ilex rubra S.Watson
LC
Mexico (SON, CHI, NL, TAM, SIN, DGO, SLP, JAL, GTO)
Tree 5–15 (30) m tall. This species is a frequent component of cloud forest and oak forest. **Common names:** *aguacatillo loco, palo verde*.
Elevational range: 450–2,720 m
Assessors: GIM, ECG, GCT, SAC
Refs: [31, 53, 137, 142]

Araliaceae

Dendropanax arboreus (L.) Decne. & Planch.
LC
Mexico (TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, MIC, MEX, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Ecuador, Peru, Bolivia, Cuba, Jamaica, Dominican Republic, Puerto Rico
Medium-sized to large tree, usually 25–30 m tall, but generally much shorter in cloud forest. This is a very abundant species, widely distributed in the Neotropics, particularly in warm, lowland habitats, ranging from very wet to seasonally moist climates. It frequently occurs in tropical rainforest, tropical evergreen forest and tropical semi-evergreen forest. High elevation populations could actually belong to a different species, in particular, given its very small stature when compared to individuals from lowland localities. Should this possibility be confirmed, the risk category should be revised for the cloud forest populations. **Synonyms:** *Aralia arborea* L., *Dendropanax concinnus* (Standl.) Lundell, *D. matudae* A.C.Sm., *D. stenodontus* (Standl.) A.C.Sm., *Gilibertia arborea* Marchal. **Common names:** *cajeta, carne de pescado, corta pico, cucharo, hogo, hoja fresca, madre del café, mano de danta, mano de león, mano de oso, mano de sapo, multé, murciélago, nixtamalcuáhuitl, nixtamalillo, palo blanco, palo de agua, palo de danta, palo santo, pingüico, sacchacah, sachi colorado, sakchaká, tamalcobaite, tamalcohahuite, tamalcuáhuitl, tun-dajá, vidrioso*. The fair-quality wood is mainly used as a source of firewood but several industrial uses are known such as the manufacture of wood picks, wooden packaging, furniture, door and window frames, etc.
Elevational range: 0–2,500 m
Assessors: JAM, ILV, SVA
Refs: [44, 45, 58, 76, 79, 115, 126, 135, 137, 173, 180, 191, 192, 207, 209, 229, 236, 267, 277, 278, 285, 295, 300, 301, 333, 347–349, 351, 356, 357, 366, 428, 429, 431, 444]

Asteraceae

Montanoa leucantha (Lag.) S.F.Blake subsp. ***arborescens*** (DC.) V.A.Funk
LC
Mexico (SON, CHI, SIN, DGO, JAL, HGO, MIC, MEX, DF, MOR, PUE, OAX, CHS), Guatemala
This taxon is not typical of cloud forest as it is often found in secondary habitats in oak forest, pine-oak forest, and even tropical dry forest. **Synonym:** *Montanoa arborescens* DC. **Common name:** *kail*. It is used as fodder for sheep and as an ornamental plant in living fences.
Elevational range: 1,000–2,450 m
Assessors: GIM, GCT
Refs: [309, 439]

Podachaenium eminens (Lag.) Sch.Bip.
LC
Mexico (SIN, DGO, JAL, VER, COL, MIC, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica
Small to medium-sized tree,10–15 m tall and trunk up to 20 cm in diameter. A frequent cloud forest element, it is also found in pine-fir forest, pine-oak forest, tropical semi-evergreen forest and secondary growth, with a clear preference for riparian habitats. **Synonyms:** *Ferdinanda eminens* Lag., *Podachaenium paniculatum* Benth. **Common names:** *acasucut, hoja de manteca, tacote*.
Elevational range: 400–2,500 m
Assessors: GIM, GCT
Refs: [76, 164, 231, 277, 438]

Verbesina perymenioides Sch.Bip. ex Klatt
LC
Mexico (MIC, TLA, GRO, OAX, CHS), Guatemala, Honduras, Panama
Shrub or small tree, 1–7 m tall. This species is a fairly abundant element in the secondary vegetation of cloud forest, oak forest, pine-oak forest and tropical dry forest. **Synonyms:** *Otopappus perymenioides* (Sch. Bip) Klatt, *Verbesina steyermarkii* Standl. It is valued as a pollen and nectar source for honeybees and is used as firewood (poor quality).
Elevational range: 300–2,300 m
Assessors: GIM, GCT
Refs: [22, 124, 135, 279, 309]

Vernonanthura patens (Kunth) H.Rob.
LC
Mexico (SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, PUE, GRO, OAX, TAB, CHS, CAM), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Brazil, Bolivia
Tree-like, colonial shrub or small tree, 3–5 (8) m tall. The presence of this species in cloud forest is very marginal as it normally occurs in other forest types including pine forest, pine-oak forest, tropical rainforest and tropical semi-evergreen forest. It is abundant in forest edges and clearings. **Synonyms:** *Vernonia aschenborniana* S.Schauer, *V. deppeana* Less., *V. patens* Kunth, *V. stellaris* La Llave, *V. viarum* M.E.Jones. **Common names:** *calpanche, carpanche, duraznillo, galpancho, hierba del burro, hoja lisa, palo aguanoso, palo tierra, quiebra machete, suquinay, t'zim, ucma tzojol, vara de san miguel, vara prieta*. Used in folk medicine and for making fence poles. It is also valued as a source of pollen and nectar for honeybees.
Elevational range: 5–1,975 m
Assessors: GIM, GCT
Refs: [76, 184, 225, 309, 338]

Berberidaceae

Berberis tenuifolia Lindl.
LC
Mexico (VER, CHS), Cuba
Large shrub to medium-sized tree, up to 13 m tall. This species occurs more frequently near or at the lower elevational limit of cloud forest, as well as in oak forest, tropical dry forest, tropical evergreen forest and secondary vegetation. **Synonyms:** *Berberis fraxinifolia* Hook., *Mahonia tenuifolia* (Lindl.) Fedde, *Odostemon tenuifolius* (Lindl.) Standl.
Elevational range: 450–1,100 m
Assessor: JAM
Ref: [221]

Betulaceae

Alnus acuminata Kunth
LC
Mexico (SON, CHI, TAM, SIN, DGO, SLP, NAY, JAL, AGS, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Argentina
A medium-sized or large tree species, up to 30 m tall. Its widespread distribution is not restricted to cloud forest as it is also frequently found in oak forest and pine-oak forest (rarely below 1,000 m elevation, with noteworthy records from Honduras and Ecuador at sea level). Trees of this species are frequently found in riparian habitats and in disturbed forests. Three subspecies have been proposed: (i) *acuminata* (Colombia, Venezuela and Argentina), (ii) *arguta* (Schltdl.) Furlow (from Sonora to Panama) and (iii) *glabrata* (Fernald) Furlow (endemic to Mexico, from Durango to Oaxaca). Seeds remain viable for 24 months under low temperature and humidity conditions. Germination is high (> 80%) when seeds are placed in humid soil and under direct sunlight. Saplings grow very rapidly in forest restoration plantations. **Synonyms:** *Alnus arguta* (Schltdl.) Spach, *A. ferruginea* Kunth, *A. lanceolata* Phil., *A. lindenii* Regel, *A. mirbelli* Spach, *A. pringlei* Fernald., *A. rufescens* Liebm. ex Hemsl. **Common names:** *abedul, aile, ailite, álamo, aliso, elite, hilit, hilite, ilite, jaul, nok, palo de águila*. The wood is widely used for construction and as a source of fuelwood. A common shade tree in shade-grown coffee plantations.
Elevational range: 1,000–3,000 (3,800) m
Assessors: SAC, MGE, GIM, GCT
Refs: [2, 57, 71, 76, 79, 96, 115, 124, 133, 135, 143, 180, 209, 229, 236, 279, 302, 307, 309, 357, 363, 429, 438, 445]

Alnus jorullensis Kunth
LC
Mexico (CHI, SIN, DGO, ZAC, NAY, JAL, AGS, GTO, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, Colombia, Ecuador, Peru, Bolivia, Argentina
A medium-sized to large tree, up to 20 m tall. A widespread species not exclusive to cloud forest as it is also present in oak, pine-oak forests, and at higher elevations in fir forest (above 3,000 m). This species is normally found at higher elevations than *Alnus arguta*. **Synonyms:** *Alnus acuminata* var. *jorullensis* (Kunth) Regel, *A. firmifolia* Fernald., *A. jorullensis* var. *exigua* Fernald., *A. jorullensis* subsp. *lutea* Furlow. **Common names:** *aile, aliso, ayle negra, carnero, elite, ilite, mallat, palo de casa, pamu, tepamu*.
Elevational range: (700) 1,000–3,500 m
Assessors: SAC, MGE, GIM, GCT
Refs: [4, 57, 79, 96, 115, 180, 207, 277, 279, 295, 348, 363, 438]

Boraginaceae

Tournefortia glabra L.
LC
Mexico (VER, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Argentina, Jamaica, Dominican Republic
Shrub or small tree, up to 8 m tall. This species is an occasional cloud forest component as it is more common in oak forest as well as in tropical semi-evergreen forest and tropical rainforest at lower elevations. **Synonym:** *Tournefortia cymosa* L. **Common names:** *canzera, cordoncillo, limoncillo, zopilotillo.* This tree has medicinal uses being used externally as a treatment for rheumatism.
Elevational range: 0–1,900 m
Assessor: JAM
Refs: [29, 74, 76, 173, 209, 223, 240, 255, 373]

Brunelliaceae

Brunellia mexicana Standl.
LC
Mexico (VER, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua
A medium-sized tree species, up to 25 m tall. Present in cloud forest but the species also occurs in oak and pine-oak forest. It may be fairly abundant in secondary vegetation. **Common names:** *cedrillo, huacalillo, songolica, tziquinacuí*. The wood is light and soft, easy to work but not durable.
Elevational range: 700–2,700 m
Assessor: MGE
Refs: [135, 207, 241, 260, 279, 333, 363, 438]

Cannabaceae

Aphananthe monoica (Hemsl.) J.-F.Leroy
LC
Mexico (SON, CHI, TAM, SIN, DGO, SLP, NAY, JAL, QRO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua
Medium-sized to large tree, up to 40 m tall. Although not a cloud forest specialist, this species is relatively abundant in this forest type. However, it is more abundant in disturbed areas and relatively dry and/or lower areas, particularly in Chiapas. The main threat faced by this species is land-use change. **Synonym:** *Mirandaceltis monoica* (Hemsl.) Sharp. **Common names:** *ajbate, ajuate, barranco, cerezo, chilesmin, chilillo, cilicsni, cocotle, conserva, coquito, cuachichile, cuerillo, escobillo, hoja menuda, itsil yexu, palo de águila, palo de armadillo, palo de santo, peinecillo, pipín, quebrache, quebracho, rosadillo, suelda, tomatillo, tza, varilla*. The wood is occasionally used in rural construction and as a source of firewood. The sweet fruit is sometimes eaten.
Elevational range: 200–1,600 m
Assessors: JAM, Expert Group May 2007
Refs: [58, 76, 174, 225, 259, 267, 285, 287, 351]

Trema micrantha (L.) Blume
LC
United States, Mexico (TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Medium-sized, rarely large tree, up to 15 (rarely 39) m tall. Not a cloud forest specialist, this species also occurs in tropical semi-evergreen forest, tropical rainforest, tropical dry forest, oak forest and pine-oak forest. In addition to its ample ecological tolerance, this species is highly favoured by human disturbance, hence playing a key role in secondary forest succession. **Synonyms:** *Celtis schiedeana* Schltdl., *Sponia grisea* Liebm. **Common names:** *capul, capulín, capulín blanco, capulín cimarrón, chaca, chacait, equipal, guacimilla, guinda, is-pope, ixpepe, majagua colorada, mata caballo, niguo, palo de ishpepe, pellejo de vieja, pie de paloma, puam, sac-pixoy, yaco de cuero, totogapolín, wahs zak*. This species is not widely used.The wood is sometimes used as construction timber and the bark is occasionally gathered for making bark paper. Some medicinal uses have also been reported.
Elevational range: 0–2,200 m
Assessor: JAM
Refs: [58, 76, 96, 174, 207, 225, 228, 229, 278, 279, 285, 287, 351, 445]

Chloranthaceae

Hedyosmum mexicanum C.Cordem.
LC
Mexico (NAY, JAL, VER, COL, MIC, MEX, MOR, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia
Dioecious shrub or small tree, up to 20 m tall. A widespread species that is frequently found in, but not exclusive to, cloud forest. It also occurs in more seasonal pine forest formations at mid- and high elevations. In cloud forest regions this species seems to be somewhat favoured by disturbance. **Synonyms:** *Hedyosmum artocarpus* Solms, *Tafallea mexicana* (C.Cordem.) Kuntze. **Common names:** *guardalagua, negro moskij, palo de agua, platanillo, sombra de café*. It is used as coffee-shade.
Elevational range: (130) 800–3,000 (3,900) m
Assessors: JAM, Expert Group May 2007
Refs: [39, 76, 115, 126, 135, 180, 207–209, 236, 277–279, 302, 333, 347, 444, 445]

Clethraceae

Clethra fragrans L.M.González & R.Delgad.
LC
Mexico (JAL, COL)
Medium-sized to large tree, up to 20 m, rarely 40 m tall. This taxon is a narrow endemic of Jalisco, reaching the Colima border. Trees of this species grow in wet ravines with cloud forest, mostly mixed with *Abies religiosa*, on the Pacific slopes of the Sierra Madre del Sur. It also occurs in drier pine-oak forest. Trees of this species are generally very abundant throughout its range, including roadside habitats. Specimens of this taxon have frequently been misidentified as *C. vicentina* Standl., as well as *C. hartwegii* Britton.
Elevational range: 1,200–2,400 m
Assessors: LMG, SVA, JAM
Refs: [148, 278, 357]

Clethra galeottiana Briq.
LC
Mexico (PUE, GRO, OAX, CHS)
Medium-sized to large tree, up to 30 m tall. A Mexican endemic, this is a typical cloud forest species, although it is also found in pine forest and pine-oak forest. Trees of this species may be fairly abundant in open or disturbed areas. This taxon has been confused with *C. mexicana* DC. **Synonym:** *Clethra breedlovei* C.H.Ham. **Common names:** *pipitzio, triste.*
Elevational range: (1,800) 2,200–2,650 (3,250) m
Assessors: LMG, SVA, JAM
Refs: [96, 115, 139, 237, 431, 434]

Clethra hartwegii Britton
LC
Mexico (SON, CHI, SIN, DGO, NAY, JAL, AGS, COL, MIC, MEX, MOR, GRO)
Shrub or medium-sized tree, usually up to 10 (rarely 30) m tall and trunk up to 30 (80) cm in diameter. This Mexican endemic taxon has a broad ecological tolerance, which allows it to occur in humid fir (*Abies*) forest, pine forest and oak forest, in addition to cloud forest. **Common names:** *bate-ucua, canelo, cucharillo, cucharo, jaboncillo, madroño, mamaguastle, palo batea, pácata, panza de perro, pata de gallo, shapú-ucu*. The wood is used for handicrafts.
Elevational range: (1250) 1,800–2,800 m
Assessors: LMG, SVA, JAM
Refs: [76, 139, 277]

Clethra hondurensis Britton
LC
Mexico (CHS), Guatemala, Belize, Honduras, Nicaragua
Shrub or small tree, up to 10 (rarely 15) m tall. This species grows across a very broad elevational range, from sea level (in Central America but not in Mexico) to locations near the 2,500 m contour line. Therefore, although it typically occurs in cloud forest, it is also found in other forest types ranging from tropical rainforest to pine-oak forest, often in disturbed areas. **Synonyms:** *Clethra caloneura* Standl. & L.O.Williams, *C. obliquinervia* Standl. & Steyerm.
Elevational range: 0–2,400 m
Assessors: LMG, SVA, JAM
Refs: [139, 434]

Clethra integerrima (Turcz.) L.M.González
LC
Mexico (VER, OAX)
Shrub or medium-sized tree, sometimes up to 25 m tall. In addition to cloud forest, this species occurs in lower elevation forest types, including tropical rainforest and lower montane rainforest, often in disturbed areas. **Synonym:** *Kowalewskia integerrima* Turcz.
Elevational range: 780–1,500 m
Assessors: LMG, SVA, JAM
Refs: [139, 148, 431]

Clethra kenoyeri Lundell
LC
Mexico (TAM, SLP, QRO, HGO, VER, PUE, OAX)
Large shrub or medium-sized to large tree, usually up to 20 (rarely 40) m tall. A Mexican endemic cloud forest specialist, this species also grows in drier forest formations such as pine-oak forest. This tree is abundant in exposed or disturbed sites. **Synonym:** *Clethra oaxacana* C.W.Ham. Material of this species has been often misidentified as *Clethra macrophylla* Mart & Gal. **Common names:** *escoplo, mameycillo, marangola, pahuilla, tlecúhuitl, zapocúahuitl*. The wood is used in rural constructions and for producing charcoal. The tree is cultivated as an ornamental plant.
Elevational range: (500) 800–2,600 m
Assessors: LMG, SVA, JAM
Refs: [58, 139]

Clethra lanata M.Martens & Galeotti
LC
Mexico (MIC, MEX, GRO, OAX, CHS), Guatemala
Small tree, up to 8 m tall. This species is not a cloud forest specialist as it also occurs in pine forest, oak forest, pine-oak forest and several dry and humid communities. **Synonym:** *Clethra confertifolia* Ernst. **Common names:** *aguacatillo, jicarillo, madroño, mamahuaztli, mameyito blanco, mameyito negro, pahuilla, tlecuáhuitl, ya-guii, yeta-uede*.
Elevational range: 350–2,350 m
Assessors: LMG, SVA, JAM
Refs: [139, 225]

Clethra macrophylla M.Martens & Galeotti
LC
Mexico (HGO, VER, PUE, OAX)
Small to medium-sized tree, up to 20 m tall. Frequently found in cloud forest, this tree also occurs in pine-oak-*Liquidambar* forest, oak forest and tropical semi-evergreen forest. Abundant in disturbed habitats and in shade-grown coffee plantations. This species has been confused with *C. mexicana* DC. **Synonyms:** *Clethra spicigera* Meissn., *Kowalewskia serrulata* Turcz. **Common name:** *marangola*. The wood is used in rustic constructions, for making furniture and as a source of charcoal. The tree is cultivated as an ornamental plant.
Elevational range: 750–1,500 (2,500) m
Assessors: LMG, SVA, JAM
Refs: [12, 139, 209, 213, 295, 305]

Clethra mexicana DC.
LC
Mexico (GTO, QRO, MIC, MEX, DF, MOR, PUE, GRO, OAX)
Medium-sized to large tree, up to 25 m tall and diameter at breast height as large as 100 cm. This species is mostly found in cloud forest but it also grows in pine-oak-*Abies* forest, often in wet habitats and disturbed open areas such as roadsides and forest edges. This taxon, endemic to central Mexico, has been frequently misidentified and confused with other species; for this reason, this nomenclatural combination became for a long time a home for many taxa, which caused a lot of confusion. **Synonyms:** *Clethra michoacana* C.H.Ham., *C. quercifolia* Lindl. **Common names:** *aguacatillo, amajuastle, cuchara, jaboncillo, madroño, mamahuaxtle, mamey cimarrón, marangola, quilaguacate, tlecúhuitl, totonalcanácatl.* The branches are used as a source of fuelwood. The wood is used for several purposes including handicrafts, kitchenware, toys, rustic constructions and charcoal production. In some localities individuals of this species are used as ornamental trees.

Elevational range: 1,800–3,300 m
Assessors: LMG, SVA, JAM
Refs: [2, 4, 12, 70, 71, 76, 115, 126, 140, 166, 180, 209, 213, 225, 228, 236, 238, 267, 277, 295, 302, 312, 333, 335, 434, 445]

Clethra nicaraguensis C.W.Ham.
LC
Mexico (CHS), El Salvador, Honduras, Nicaragua
Small to medium-sized tree, up to 20 m tall. A frequent cloud forest species, it also occurs in moist oak forest and pine-oak forest, often in disturbed areas. In Mexico, it has been recorded only in a few localities from the Central Highlands of Chiapas where forest cover has been severely reduced in recent decades. **Common names:** *palo colorado, nancite*.
Elevational range: (1,000) 1,600–2,700 m
Assessors: LMG, SVA, JAM
Ref: [139]

Clethra pringlei S.Watson
LC
Mexico (NL, TAM, SLP, QRO, HGO, VER, PUE)
Small to medium-sized tree, up to 15 m, rarely up to 40 m tall and trunk up to 30 (50) cm in diameter. This Mexican endemic species occurs in various forest types, including cloud forest, but more frequently in pine-oak-*Liquidambar* forest and oak forest. This tree grows very frequently in open or disturbed areas such as roadsides and clearings. It is widespread in the eastern mountains of the country. **Common names:** *aguacatillo, encinillo, huacanelo, it' ath té, madroño, mameycillo, naranjela, ojit, palo blanco, palo colorado, palo escoplo, talpanáhuat*. The wood is used for making rustic furniture and in rural constructions. The leaves are used as fodder in some regions.
Elevational range: (250) 900–2,700 m
Assessors: LMG, SVA, JAM
Refs: [10–12, 58, 76, 137, 139, 180, 295, 300, 301]

Clethra rosei Britton
LC
Mexico (SON, CHI, SIN, DGO, NAY, JAL, COL, MIC, MEX, GRO)
Medium-sized to large tree, up to 15 m tall. A widespread Mexican endemic species, it occurs in dry to moist montane forest including cloud forest, and is even present in savanna communities. It is found in exposed and disturbed sites. **Synonyms:** *Clethra confusa* Briq., *C. guadalajarensis* Briq., *C. palmeri* Britton. **Common names:** *bebelama, canelillo, canelo, canero, cascarillo, cucharo, hubulama, jicarilla, jicarillo, madroña, malvaste, mamahuastle, mamahuaxtle, palo blanco, palo de agua, roble, techesqual, palo baraja*. The wood is used for making furniture.
Elevational range: 80–2,500 m
Assessors: LMG, SVA, JAM
Refs: [79, 96, 139, 277, 351]

Clethra schlechtendalii Briq.
LC
Mexico (VER, HGO, PUE)
Medium-sized tree, up to 15 m tall. A species frequently found in disturbed areas of moist pine-oak forest and cloud forest. Locally abundant. **Common names:** *laurel, marangola, maroñón, tlecuwitl, zapocuahuitl*. The wood is used in rustic constructions and for making furniture. It is also used for making charcoal.
Elevational range: 1,000–2,350 m
Assessors: LMG, SVA, JAM
Ref: [139]

Clethra suaveolens Turcz.
LC
Mexico (CHS), Guatemala, El Salvador, Honduras
Usually a small or medium-sized tree, 20–30 m tall, sometimes up to 60 m tall with trunk 100 cm in diameter or more. The geographical range of this widespread species includes a variety of forests, from montane rainforests to cloud forest, also frequently found in grassy openings and disturbed clearings where it behaves as a pioneer. It has been extensively collected in Chiapas. **Synonyms:** *Clethra glaberrima* Lundell, *C. matudae* Lundell, *C. nubium* Standl. & L.O. Williams, *C. viridiflora* Standl. & L.O.Williams, *C. vulcanicola* Standl. **Common names:** *coshosté, cucharillo, ixpalcuhuitl, k'ajk'etez, kate té, k'oxoxté, maguichini*. The wood is valued for making house rooves and as a source of firewood, whereas the bark and the leaves have medicinal uses.
Elevational range: 1,000–2,700 m
Assessors: SVA, JAM
Refs: [12, 135, 139, 148, 225, 279, 305, 309]

Clethra tuxtlensis L.M.González
LC
Mexico (VER)
Small to medium-sized tree, up to 15 m tall. This species is very abundant in the short-statured cloud forest or elfin forest that thrives inside the crater of the San Martín Volcano, in the Sierra de Los Tuxtlas. It is also abundant in pine-oak forest but infrequent in tropical rainforest at lower elevations. Despite having a very restricted geographical range, this species always seems to be very abundant even in much disturbed forests where it tends to behave like a pioneer. This species has been misidentified as *Clethra suaveolens* Turcz. **Common names:** *cucharillo, ixpalcauhuitl, maquichini, tun cuy xoj, zabatz cuy*. The wood is used in rustic constructions and the bark is used medicinally for cleaning wounds.
Elevational range: (450) 1,000–1,800 m
Assessors: LMG, JAM
Ref: [148]

Clusiaceae

Clusia flava Jacq.
LC
Mexico (TAM, VER, MOR, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Venezuela, Ecuador, Peru, Jamaica, Lesser Antilles
A terrestrial or epiphytic tree, 5–10 (17) m tall, smaller in some localities (Los Tuxtlas). In addition to cloud forest, this species is also found in tropical rainforest, tropical dry forest, and in disturbed habitats such as roadsides. The taxonomy of the genus *Clusia* is very complex; some specimens of *C. flava* may be hybrids with *C. guatemalensis* which has smaller leaves, flowers and fruit, and which grows at higher elevations. **Synonyms:** *Clusia suborbicularis* Lundell, *C. utilis* S.F.Blake. **Common names:** *chunup, hoja de baraja, memelita, piquinté*. Used as firewood and for fence posts. It is also used in traditional medicine to treat rheumatism and headache and it is recognised as a popular remedy for syphilis in Yucatán.
Elevational range: 0–1,850 m
Assessors: LSV, RPG, MGE
Refs: [156, 173, 220, 228, 241, 279, 438]

Clusia lundellii Standl.
LC
Mexico (VER, OAX, TAB, CHS, CAM), Guatemala, Belize, Honduras
Tree, up to 10 m tall, or a vine climbing to the tops of tall trees. A widespread species in cloud forest but more frequently found at lower elevations. In Mexico it has been collected in locations above 1,500 m (only in Oaxaca). **Synonym:** *Clusia chanekiana* Lundell. **Common name:** *hoja de baraja*.
Elevational range: 100–2,240 m
Assessors: LSV, RPG, MGE
Refs: [156, 173, 220, 279]

Clusia quadrangula Bartlett
LC
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras, Panama
A tree species, up to 9 m tall, but also an epiphytic shrub. This species has a marginal presence in cloud forest but is fairly abundant in tropical dry forest at lower elevations. It has been collected above 1,000 m only at Ixtlán, Oaxaca. **Synonym:** *Clusia cooperi* Standl.
Elevational range: 0–800 (1,900) m
Assessors: LSV, RPG, MGE
Refs: [156, 220, 279]

Clusia rosea Jacq.
LC
Mexico (VER, MIC, GRO, CHS, CAM), Guatemala, Belize, Honduras, Costa Rica, Panama, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Lesser Antilles
A small or medium-sized tree, 10–18 m tall. This species is marginal in cloud forest but is fairly abundant in other forest formations at lower elevations. Considered as an exotic invasive species in Hawaii. **Synonyms:** *Clusia major* L., *C. rosea* var. *colombiana* Cuatrec. Uses include firewood, fenceposts, rural constructions and tool handles. In the West Indies the leaves were reportedly used to write on when paper was scarce.
Elevational range: 1–1,600 m
Assessors: LSV, RPG, MGE
Refs: [115, 156, 220, 279, 438]

Clusia salvinii Donn.Sm.
LC
Mexico (SIN, NAY, JAL, VER, COL, MIC, MEX, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Bolivia
A low epiphytic tree, 3–12 m tall. This species is abundant in cloud forest and in tropical rainforest. **Synonym:** *Clusia schippii* Lundell. **Common names:** *flor de canela, guayabillo, guicho, huichu, lengua de tigre, oreja de coyote, oreja de león, oreja de venado, palo de águila, siempreviva*.
Elevational range: 300–2,600 (3,250) m
Assessors: LSV, RPG, MGE
Refs: [76, 79, 156, 207, 220, 277, 279, 329, 347, 348, 351, 356, 357, 428, 429, 438]

Garcinia intermedia (Pittier) Hammel
LC
Mexico (NAY, JAL, VER, MIC, PUE, GRO, OAX, TAB, CHS, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia
A small or medium-sized dioecious tree, 5–15 m tall, with a marginal distribution in cloud forest. It is more frequently found in seasonal formations at lower elevations and in disturbed habitats. **Synonyms:** *Calophyllum edule* Seem, *Rheedia edulis* (Seem.) Planch. & Triana, *R. intermedia* Pittier, *R. tonduziana* Engl. **Common names:** *limoncillo, naranjillo, toronjil, zapotillo*. Fruit is edible. Bark is rich in tannins. The timber is a source of firewood and is used to make fenceposts and tool handles.
Elevational range: 0–1,800 m
Assessors: LSV, RPG, MGE
Refs: [76, 173, 279, 333, 431, 438]

Vismia baccifera (L.) Triana & Planch.
LC
Mexico (VER, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil
A small tree, up to 12 m tall. This species occurs in cloud forests but is mostly found in more seasonal mid-elevation forests. Few specimens available from Mexico where it has been collected in cloud forest (only in Oaxaca). **Synonyms:** *Caopia baccifera* (L.) Kuntze, *Hypericum bacciferum* L., *Vismia dealbata* Kunth, *V. guttifera* Pers., *V. mexicana* Schltdl., *V. panamensis* Duchass. & Walp. **Common names:** *nanchillo, nancillo amarillo*. Associated with shade-grown coffee plantations in Veracruz. Uses reported from Cobán (Guatemala) include the relief of toothache and headache and as a mouthwash. The wood is used to make handles for agricultural tools.
Elevational range: 280–1,860 m
Assessors: LSV, RPG, MGE
Refs: [207, 209, 226, 279, 333, 438]

Vismia camparaguey Sprague & L.Riley
LC
Mexico (VER, PUE, OAX, TAB, CHS), Guatemala, Belize, Honduras
A small tree, up to 7 m tall. This species is marginal in cloud forest as it grows more frequently in tropical dry forest and in tropical rainforest. Used as a source of firewood.
Elevational range: 0–1,600 m
Assessors: LSV, RPG, MGE
Refs: [226, 279]

CORNACEAE

Cornus excelsa Kunth
LC
Mexico (CHI, NL, TAM, SIN, DGO, SLP, NAY, JAL, GTO, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala
A widespread, early successional tree species, up to 12 m tall and trunk up to 15 cm in diameter. Fairly abundant in secondary vegetation associated with cloud forests but also found on slopes and in ridges with oak and pine-oak forests. Seedlings can be readily produced from chemically scarified seeds. **Synonyms:** *Cornus lanceolata* Rose, *C. tolucensis* Kunth. **Common names:** *acaciste, aceitunillo, carindapás, hierbabuenilla, isbón, matlahuacal, mimbre, mimbre blanco, palo membrillo, quirindapás, tepeacuilotl, tepecuilo, tepecuilote, teposa, tepoza*. The wood is used for making tool handles and handicrafts. Some medicinal uses are known. Bark is used to cure stomach pains.
Elevational range: (1,100) 1,500–2,800 m
Assessors: NRM, MGE
Refs: [4, 43, 47, 58, 76, 79, 124, 135, 137, 140, 161, 229, 237, 277, 279, 295, 300–302, 309, 356, 365, 438]

Nyssa sylvatica Marshall
LC
Canada, United States, Mexico (TAM, HGO, VER, PUE, CHS)
A medium-sized or large tree, up to 36 m tall and trunk up to 1.6 m in diameter. A widespread and abundant species in cloud forests, frequently found in moist or riparian habitats. Seedlings can be produced from seeds (germination 40–60%) passed through cold water and placed on damp soil. **Synonyms:** *Nyssa caroliniana* Poir., *N. multiflora* Wangenh. **Common names:** *cabo de luc, chisté, manzanillo, palo de papaxi, petcui, tetzicohuitl.* Used for hedges and as an ornamental tree because of the attractive red colour of its leaves in the Fall. The timber is recognized for its good quality although it is not very durable; with adequate treatment it is valuable for making poles. Also used as a source of firewood.
Elevational range: 1,000–2,200 m (close to sea level in Canada and the United States).
Assessors: MGE, Expert Group May 2007
Refs: [4, 135, 137, 163, 229, 241, 295, 305, 309, 438]

CUPRESSACEAE

Cupressus lusitanica Mill.
LC
Mexico (SIN, NAY, JAL, MIC, MEX, DF, GRO, CHS), Guatemala
A heliophytic large tree species, up to 40 m tall and trunk more than 60 cm in diameter. It may be an element of the canopy in cloud forest but also ocurrs in pine-oak forest and pine-fir (*Abies*) forest above 2,500 m. It may form pure stands over small areas. Widely planted in tropical and subtropical areas; records from many other Mexican states and countries in the *TROPICOS* database are possibly from cultivated plants. Seedlings are readily produced from fresh seeds, which can not endure storage for more than seven months. **Synonyms:** *Cupressus benthamii* Endl., *C. lindleyi* Klotzsch. ex Endl. **Common names:** *cedro, cedro blanco, ciprés, nukulpat, sabino, tatzcanti.* Used as an ornamental and planted in hedges. Other uses include lumber for construction, wood for making pencils, toys, guitars and mandolins.
Elevational range: 1,400–3,600 m
Assessors: ILV, MGE
Refs: [4, 58, 69–71, 76, 115, 135, 279, 309]

DIPENTODONTACEAE

Perrottetia longistylis Rose
LC
Mexico (SIN, DGO, NAY, JAL, HGO, VER, COL, MIC, MOR, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
A small tree species, up to 12 m tall. This species is frequently found in secondary vegetation derived from cloud forest and pine-oak forest, and also occurs on river banks. **Common name:** *mezcalillo*.
Elevational range: 650–2,600 m
Assessors: NRM, MGE
Refs: [2, 96, 180, 207, 214, 241, 277, 279, 333, 351, 357, 429]

Perrottetia ovata Hemsl.
LC
Mexico (DGO, SLP, QRO, HGO, VER, GRO, OAX, CHS), Guatemala
A small tree species frequently found in secondary vegetation associated with cloud forest and pine-oak forest. It is distributed mostly in Mexico. **Synonym:** *Perrottetia glabrata* Rose. **Common name:** *palo de agua*.
Elevational range: 1,100–2,600 m
Assessors: NRM, MGE
Refs: [4, 58, 126, 214, 229, 295, 445]

Ericaceae

Arbutus xalapensis Kunth
LC
United States, Mexico (SON, CHI, COA, NL, TAM, SIN, DGO, SLP, NAY, JAL, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua
A small or medium-sized tree, 4–8 (15) m tall. An occasional component of cloud forest, this species is more frequently found in pine-oak forest and in secondary vegetation. **Synonyms:** *Arbutus densiflora* Kunth, *A. floribunda* M.Martens & Galeotti, *A. glandulosa* M.Martens & Galeotti, *A. laurina* M.Martens & Galeotti, *A. macrophylla* M.Martens & Galeotti, *A. mollis* Kunth, *A. paniculata* M.Martens & Galeotti, *A. petiolaris* Kunth. **Common names:** *madrón, madroño, on té*.
Elevational range: 800–3,250 m
Assessor: FLH
Refs: [2, 4, 58, 70, 71, 76, 79, 115, 138, 166, 180, 238, 277, 302, 305, 309, 357, 364]

Arctostaphylos pungens Kunth
LC
United States, Mexico (BC, SON, CHI, COA, NL, TAM, SIN, DGO, ZAC, SLP, NAY, JAL, GTO, HGO, VER, MIC, MEX, PUE, TLA, OAX, CHS)
Small tree, 3–5 m tall. Rare in cloud forest, this species grows more frequently in oak forest, pine-oak forest, and juniper or cypress scrub; it is also present in secondary vegetation derived from these plant communities. **Common names:** *manzanita, manzanilla, pingüica, palo de pingüica, tepezquite, pinquiqua, leño colorado*. Boiled leaves and fruit are used as a remedy for kidney diseases.
Elevational range: (1,600) 2,100–3,000 (3,400) m
Assessors: FLH, GIM, GCT
Refs: [70, 71, 76, 97, 138, 335]

Bejaria aestuans Mutis ex L.
LC
Mexico (SIN, DGO, ZAC, NAY, JAL, HGO, VER, COL, MIC, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia
Low tree, 3–8 m tall. Frequently found in cloud forest but also grows in pine forest and oak forest. **Synonyms:** *Bejaria discolor* Benth., *B. glauca* Bonpl., *B. laevis* Benth., *B. mexicana* Benth. **Common names:** *rosa del monte, cruz de mayo*.
Elevational range: 910–1,800 m
Assessor: FLH
Refs: [4, 67, 229, 295, 429]

Comarostaphylis discolor (Hook.) Diggs
LC
Mexico (JAL, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala
Mostly a shrub, 1–3 m, or a low tree, 3–6 (10) m tall. Rare in cloud forest but frequently found in oak forest, pine-oak forest, scrub, or even secondary vegetation derived from these vegetation types. Mostly recorded as abundant where collected.
Elevational range: (1,200) 1,650–3,100 (3,900) m
Assessor: FLH
Refs: [76, 97, 138, 277]

Gaultheria acuminata Schltdl. & Cham.
LC
Mexico (HGO, VER, PUE, GRO, OAX, CHS), El Salvador, Honduras
Shrub or small tree, 0.5–7 m tall. Variably abundant in oak forest, pine-oak forest and cloud forest. Recorded as a tree only in Chiapas and Oaxaca. Frequently occurs in rocky habitats. **Synonyms:** *Gaultheria chiapensis* Camp, *G. laevigata* M.Martens & Galeotti, *G. nelsonii* Small, *G. nitida* Benth., *G. ovata* DC., *G. pringlei* Camp.
Elevational range: (950) 1,500–2,700 m
Assessor: FLH
Refs: [130, 209, 216, 295]

Gaultheria erecta Vent.
LC
Mexico (NL[?], TAM[?], DGO, SLP, JAL, AGS, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Ecuador, Peru, Bolivia, Brazil, Argentina
Mostly a shrub, 0.5–3 m, or a low tree, 3–6 m tall. This species occurs in oak forest, pine forest, pine-oak forest, cloud forest, subalpine scrub and secondary vegetation. Frequently recorded as abundant where collected. **Synonyms:** *Gaultheria conzatti* Camp, *G. cordata* M.Martens & Galeotti, *G. cordifolia* Kunth, *G. cumingii* Sleumer, *G. hidalgensis* Loes., *G. hirtiflora* Benth., *G. lancifolia* Small, *G. longipes* Small, *G. montana* Brandegee, *G. odorata* Bredem. ex Willd. var. *mexicana* DC., *G. parvifolia* Small, *G. schiedeana* Sleumer, *G. tacanensis* Camp, *G. trichocalycina* DC. **Common name:** *arrayán*.
Elevational range: (1,400) 1,750–2,800 (3,100) m
Assessor: FLH
Refs: [216, 229, 431]

EUPHORBIACEAE

Alchornea latifolia Sw.
LC
Mexico (TAM, SLP, NAY, JAL, GTO, QRO, HGO, VER, COL, PUE, GRO, OAX, TAB, CHS, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Dioecious large tree, up to 30 m tall and trunk up to 45 cm in diameter. This taxon is not restricted to cloud forest as it is also present in wet and dry tropical forests, mangroves, open areas and riparian habitats. **Synonym:** *Alchornea similis* Müll.Arg. **Common names:** *canaco, carne de caballo, coton de caribe, hoja ancha, kan-ak, palo de huevo, palo de mujer, pastillo, pozol agrio*. The wood is light, soft and with low durability. No other uses are known.
Elevational range: 40–1,700 m
Assessors: MMG, MGE
Refs: [126, 173, 207, 209, 224, 241, 333, 351, 429, 438]

Cnidoscolus multilobus (Pax) I.M.Johnst.
LC
Mexico (TAM, SLP, QRO, VER, PUE, GRO, OAX, TAB, CHS, CAM), Guatemala, Belize, El Salvador
Small tree, up to 6 m tall. This species is marginal to cloud forest as it occurs in forest formations typical of lower elevations including tropical rainforest, tropical evergreen forest, tropical semi-evergreen forest, tropical dry forest, pine forest and pine-oak forest. It is abundant in canopy gaps and forest edges. **Synonym:** *Jatropha multiloba* Pax. **Common names:** *ac, cajní, chichacaste, chichoalcaxitle, mala mujer, mala mujer lisa, ortiga, sla ek', tepo, tépum, totopo, tzitzicaitl*.
Elevational range: 0–1,800 m
Assessors: GIM, JAM
Refs: [76, 173, 229, 285, 295, 299–301, 333]

Croton billbergianus Müll. Arg.
LC
Mexico (NAY, JAL, VER, OAX, TAB, CHS, CAM), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Bolivia
Not restricted to cloud forest, this species also occurs in tropical rainforest and other more seasonal lowland forest formations.
Elevational range: 20–1,000 m
Assessor: MMG
Refs: [224, 441]

Croton draco Schltdl. & Cham.
LC
Mexico (TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Honduras, Nicaragua, Costa Rica
A tree species, up to 25 m tall and trunk up to 50 cm in diameter. Not restricted to cloud forest. This species is abundant in secondary vegetation in cloud forest where slash-and-burn agriculture is practised. **Common names:** *cuate, palo muela, chichbat, chichté, drago, etzcuáhuitl, pocsnum-qui-ui, sangre de drago, sangregado, sangre de perro, xitzte*. The red sap is a source of dye and a remedy for hoof diseases in horses. It has astringent properties and is also used for the treatment of fever and to harden mouth gums.
Elevational range: (40) 1,300–1,700 m
Assessors: JAM, MGE
Refs: [58, 76, 209, 224, 228, 241, 279, 295, 333, 351, 438, 441]

Croton guatemalensis Lotsy
LC
Mexico (SLP, JAL, VER, COL, GRO, OAX, CHS, CAM, YUC), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Peru
A small tree, up to 12 m tall. A species not restricted to cloud forest as it also occurs in tropical dry forest and tropical rainforest. **Common names:** *algodoncillo, cascarillo, chul, chulché, copalchi, copalchí, huilote, huilotl, juilocuáhuitl, oli, olith, palo blanco, quina blanca, vara blanca, vidrioso*. The bark is used to treat fever and the cooked bark is used to treat diarrhoea and for cleaning infected wounds.
Elevational range: (250) 500–1,730 m
Assessor: MMG
Refs: [224, 228, 241, 279, 438, 441]

Croton schiedeanus Schltdl.
LC
Mexico (VER, OAX, TAB, CHS, CAM), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Peru
A small tree, up to 15 m tall. This species is marginal to cloud forest as it usually occurs in other tropical lowland forest formations.
Elevational range: 0–1,400 m
Assessors: MMG, MGE
Refs: [224, 279, 441]

Croton xalapensis Kunth
LC
Mexico (SLP, JAL, VER, MIC, PUE, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
A small tree, up to 10 m tall, sometimes reported as a shrub. This species is marginal to cloud forests, it occurs in secondary vegetation on rocky slopes or disturbed habitats such as shade-grown coffee plantations and pastures. More frequently found in successional associations of humid, semi-humid, and dry tropical forests at lower elevations (occasionally in riparian habitats or in protected ravines) and in pine-oak and oak forests. **Synonyms:** *Croton aguilarii* Lundell, *C. asteroides* Lundell, *C. pseudoxalapensis* Croizat, *C. pseudoxalapensis* var. *cobanensis*

Croizat, *Cyclostigma xalapense* (Kunth) Klotzsch, *Oxydectes xalapensis* (Kunth) Kuntze, *Palanostigma xalapense* (Kunth) Baill. **Common names:** *sangregado, sangregao*. Its medicinal uses include the treatment of throat infections. The trunk exudes a gum used for cleaning teeth.
Elevational range: (500) 900–1,500 (2,000) m
Assessors: MGE, NRM
Refs: [209, 224, 279, 288, 333, 445]

Gymnanthes actinostemoides Müll.Arg.
LC
Mexico (TAM, NAY, JAL, VER, COL, MIC, OAX, CHS), Costa Rica, Panama
Not restricted to cloud forest as it also occurs in oak forest, pine-oak forest and tropical dry forest. Sometimes present in riparian habitats. **Synonym:** *Sebastiania actinostemoides* Müll.Arg. (Müll.Arg.)
Elevational range: 800–2,135 m
Assessor: MMG
Refs: [76, 224, 428]

Hieronyma oblonga Müll.Arg.
LC
Mexico (VER, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, French Guiana, Ecuador, Peru, Bolivia, Brazil
A small tree, up to 12 m tall. This species is not restricted to cloud forest as it is also found in pine forest, and occasionally in wooded swamps or generally in areas with poor drainage. **Synonyms:** *Hieronyma gentlei* Lundell, *H. guatemalensis* Donn.Sm., *Stilaginella oblonga* Tul.
Elevational range: (0) 500–2,600 m
Assessor: MMG
Refs: [224, 279]

Mabea occidentalis Benth.
LC
Mexico (NAY, JAL, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil
A small tree, up to 8 m tall and trunk up to 8 cm in diameter. Not restricted to cloud forest, this species mostly occurs in forests at lower elevations and in riparian habitats. **Synonyms:** *Mabea acutissima* Killip, *M. belizensis* Lundell, *M. pallida* Müll.Arg.
Elevational range: 0–1,500 m
Assessors: MMG, MGE
Refs: [224, 279]

Sapium macrocarpum Müll.Arg.
LC
Mexico (TAM, SIN, DGO, SLP, NAY, JAL, GTO, VER, COL, MIC, MOR, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica
A tree, up to 25 m tall, with a widespread distribution in Mexico. This species is marginal in cloud forest and frequently occurs in forests at elevations under 1,500 m. Abundant in riparian habitats. **Synonyms:** *Excoecaria macrocarpa* (Müll.Arg.) Müll.Arg., *Sapium bourgeaui* Croizat, *S. dolichostachys* K.Schum. ex Pax, *S. mexicanum* Hemsl., *S. pedicellatum* Huber, *S. thelocarpum* K.Schum. & Pittier. **Common names:** *amatillo, chonte, hincha huevos, lechón, palo lechón*.
Elevational range: 0–1,800 m
Assessors: MMG, MGE
Refs: [76, 224, 279, 438]

Sebastiania jaliscensis McVaugh
LC
Mexico (SIN, NAY, JAL, GRO, OAX)
This species occurs in a variety of forest types. In addition to cloud forest, it is also found in tropical dry forest, oak forest, pine-oak forest, pine forest, and often occurs in riparian habitats.
Elevational range: 1,400–1,700 m
Assessor: MMG
Refs: [115, 207, 224, 438]

Fabaceae

Gleditsia aquatica Marshall
LC
United States, Mexico (TAM)
Small tree, up to 10 m tall. This species is widely distributed in humid habitats of the eastern United States, but in Mexico it is restricted to a small cloud forest patch in the Sierra de San Carlos of Tamaulipas State where it is abundant, forming almost pure stands. **Synonyms:** *Asacara aquatica* (Marshall) Raf., *Gleditsia triacantha* Gaertn., *G. triacanthos* var. *aquatica* (Marshall) Castiglioni.
Elevational range: 1,400 m (from sea level in the United States)
Assessor: JAM
Refs: [30, 31]

Inga densiflora Benth.
LC
Mexico (CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru
Small to medium-sized tree, 6–20 m tall. A typical species of humid regions, this species occurs in cloud forest and in tropical rainforest. This species is used as shade-tree in shade-grown coffee plantations in the Soconusco region (southern Chiapas) and Central America. The seeds are surrounded by an edible sarcotesta.
Elevational range: 100–2,250 m
Assessors: GIM, FLH, GCT
Refs: [282, 369, 371]

Inga jinicuil G.Don
LC
Mexico (VER, MIC, PUE, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Ecuador
Medium-sized tree, 8–20 m tall. This species is an occasional cloud forest element as it typically grows in humid forests at lower elevations. **Synonyms:** *Inga jinicuil* Schltdl., *I. paterno* Harms, *I. radians* Pittier. **Common names:** *algodoncillo, bitzé, ca'la'm, chalahuite, cojinicuil, cuajinicuil, cuilmachetón, guajinicuil, jinicuil, paterna, paterno, ta'chki, talax, uajnikuile*. The species is widely used as a shade tree in coffee and cacao shade-grown plantations. The sarcotesta is edible and the seed embryo is used for making soup, after being boiled or roasted.
Elevational range: 0–1,880 m
Assessors: GIM, FLH, GCT
Refs: [174, 209, 279, 282, 369, 371]

Inga laurina (Sw.) Willd.
LC
Mexico (NAY, JAL, MIC, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Ecuador, Peru, Bolivia, Brazil, Paraguay, Argentina, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Small to medium-sized tree, 4–22 m tall. Not a cloud forest specialist, this species is also found in oak forest, pine forest and tropical semi-evergreen forest, frequently in riparian habitats. **Synonyms:** *Inga fagifolia* (L.) Willd. ex Benth., not *I. fagifolia* G.Don (= *I. ruiziana* G.Don), *Mimosa laurina* Sw. **Common name:** *nacaspirol*. The sarcotesta is edible.
Elevational range: 50–1,500 (2,220) m
Assessors: GIM, FLH, GCT
Refs: [228, 232, 277, 279, 282, 351, 369, 371]

Inga oerstediana Benth.
LC
Mexico (VER, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Lesser Antilles
Medium-sized to large tree, up to 30 m tall but often much smaller. This typical cloud forest species is also present in tropical rainforest and pine-oak forest, frequently in riparian habitats. This species is closely related to, and hence often confused with *I. edulis* Mart. **Synonyms:** *Inga endlicheri* (Kuntze) J.F.Macbr., *I. minutula* (Schery) T.S.Elias. **Common names:** *chalahuita, jacaniquil, joaquiniquil, kok, palo de chelel*. This species is used as a shade tree in shade-grown cacao and coffee plantations. In some places people favour its growth as it is a good source of firewood.
Elevational range: 0–3,000 m
Assessors: GIM, FLH, GCT
Refs: [282, 369, 371]

Inga punctata Willd.
LC
Mexico (HGO, VER, PUE, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, French Guiana, Ecuador, Peru, Bolivia, Brazil, Cuba, Lesser Antilles
Small to medium-sized tree, 5–20 m tall. Although present in cloud forest, this species is not restricted to this vegetation type as it also occurs in lowland humid vegetation and pine-oak forest, frequently in riparian habitats and often in ruderal habitats. From a taxonomic viewpoint this is a highly complex species, like many other *Inga* species from the cloud forest. **Synonym:** *Inga leptoloba* Schltdl. **Common names:** *chalahuite, chalahuite cruzado, chelele, juatope, puch, tzelel, vainillo*. Used as a shade tree in shade-grown coffee plantations.
Elevational range: 0–2,000 m
Assessors: GIM, FLH, GCT
Refs: [209, 228, 279, 282, 369, 371]

Inga vera Willd.
LC
Mexico (COA, SIN, DGO, TAM, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, MOR, GRO, OAX, TAB, CHS, CAM, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico
Medium-sized to tall tree, 10–30 m tall. Found in cloud forest but also occurs in tropical rainforest, frequently in riparian habitats. A very variable species. The species is closely related to *I. affinis* DC., *I. eriocarpa* Benth., and *I. oerstediana* Benth., with which it can be easily confused. Pennington [282] recognized three subspecies, two occurring in Mexico (subsp. *vera* and the endemic subsp. *eriocarpa* (Benth.) J.León). **Synonyms:** *Inga mociniana* G.Don, *I. spuria* Humb. & Bonpl. ex Willd. **Common names:** *agotope, aguatope, ajotopi, biche, carnicuil, chalahuite, jacanacuil, jacanicuil, janicuil, tanaloco, vainillo*. This is by far the most widely used species as a shade tree in shade-grown coffee plantations. Also used as fuel wood.
Elevational range: 300–1,350 m
Assessors: GIM, FLH, GCT
Refs: [58, 79, 209, 279, 282, 351, 369, 371]

Senna pendula (Willd.) H.S.Irwin & Barneby var. ***ovalifolia*** H.S.Irwin & Barneby
LC
United States, Mexico (SON, TAM, SIN, SLP, QRO, HGO, VER, OAX, TAB, CAM), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Venezuela
Shrub or small to medium-sized tree, 1–7 (20) m tall. A typical taxon of secondary vegetation derived from cloud forest and tropical dry and humid forest. It is also recorded along roadsides and near cultivated fields. Naturalized in Cuba. *Senna pendula* (Willd.) H.S.Irwin & Barneby is a complex and very variable

species, comprising 19 varieties [176]. **Synonyms:** *Adipera ovalifolia* Britt. & Rose, *Cassia botteriana* Benth., *C. ovalifolia* M.Martens & Galeotti, not *C. ovalifolia* Mart. ex Colla, *C. pendula* Humb. & Bonpl. ex Willd. **Common names:** *alcaparrillo, bicho, bricho, caca de gato, cachimbo, tsu leek' ecuet, vara prieta*. Used in the practice of folk medicine.
Elevational range: 0–1,450 m
Assessors: GIM, GCT
Refs: [176, 232, 340]

Zapoteca portoricensis (Jacq.) H.M.Hern. subsp. ***portoricensis***
LC
Mexico (TAM, SLP, HGO, VER, MEX, PUE, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Jamaica, Haiti, Dominican Republic, Puerto Rico
Shrub or small tree, 2–6 m tall. This species is not a cloud forest specialist as it can also be found in oak forest, pine forest, pine-oak forest and tropical rainforests, especially in secondary habitats. **Synonyms:** *Calliandra nogalensis* Lundell, *C. siltepecensis* Lundell, *C. portoricensis* (Jacq.) Benth., *Mimosa portoricensis* Jacq. **Common names:** *efecillo, guajillo, guajillo blanco, juc, pelo de ángel, pix, timbrillo*.
Elevational range: (160) 800–2,100 m
Assessors: GIM, FLH, GCT
Refs: [58, 137, 165, 228, 279, 295]

Zapoteca tetragona (Willd.) H.M.Hern.
LC
Mexico (NAY, JAL, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador
Shrub or small tree, 1.5–5 tall, rarely up to 12 m tall. This is a widespread species in successional vegetation derived from cloud forest and tropical semi-evergreen forest, found along streams or in river banks and edges of crop fields. **Synonyms:** *Acacia tetragona* Willd., *Anneslia tetragona* (Willd.) Donn.Sm., *Calliandra portoricensis* (Jacq.) Benth. var. *multijuga* Micheli ex Donn.Sm., *C. tetragona* (Willd.) Benth., *C. toroana* Britton & Rose ex Britton & Killip, *Feuilleea tetragona* (Willd.) Kuntze, *Mimosa quadrangularis* Poir. **Common names:** *ángel, atzalaquio, barba de chivo, cabellito blanco, cabellito de ángel, cabeza de viejo, cola de iguana, guaje silvestre, guajillo, guajillo blanco, lig tiou, palo costillo, pelo de ángel, potosina*.
Elevational range: 0–1,500 m
Assessors: GIM, GCT
Refs: [76, 165, 232, 279]

Fagaceae

Quercus crassifolia Humb. & Bonpl.
LC
Mexico (CHI, NL, DGO, ZAC, SLP, JAL, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala
Medium-sized to large deciduous or semi-deciduous tree, growing as tall as 30 m and trunk up to 40–80 cm in diameter. This is a typical cloud forest species but it also occurs in oak forest, pine-oak forest, and conifer forest. It is generally an abundant tree, sometimes forming dense stands, and it regenerates well in open areas and forest edges. The species is widely distributed in mountainous region of the country. **Common names:** *bochilte, bochjé, bochiv, chanal, encino colorado, encino hojarasco, encino huaje, encino prieto, encino roble, encino tesmolillo, hojarasco, roble, yavnal-jite'e*. It is used as a source of firewood and to make charcoal.
Elevational range: 1,200–2,900 (3,200) m
Assessors: SVA, JAM, MGE
Refs: [4, 76, 124, 133, 180, 194, 195, 225, 229, 302, 309, 310, 312, 404, 413]

Quercus laurina Bonpl.
LC
Mexico (NL, TAM, JAL, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador
Large tree, up to 35 m tall or more. A widely distributed and abundant cloud forest species, it is often dominant also in oak forest, pine-oak forest and pine-oak-fir (*Abies*) forest. The species regenerates well in forest gaps, and in open fields and forest edges created by agriculture. Re-sprouting is vigorous in small trees. **Synonym:** *Quercus ocoteifolia* Liebm. **Common names:** *ahucepitzahuac, bik'tal-anal, chiquinib, encino, encino ahualpitzahual, encino capulincillo, encino jarilla, encino laurelillo, encino nechilahue*. Poles and boards are obtained from large trees. It is used for firewood and to make charcoal.
Elevational range: 1,600–3,000 (3,650) m
Assessors: SVA, JAM, MGE
Refs: [24, 43, 70, 71, 124, 126, 133, 135, 166, 180, 194, 195, 209, 213, 225, 237–239, 277, 279, 295, 302, 309, 312, 356, 413]

Quercus obtusata Bonpl.
LC
Mexico (NL, DGO, ZAC, SLP, NAY, JAL, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, GRO, OAX)
Medium-sized deciduous tree, up to 20 m tall. This Mexican endemic oak thrives in cloud forest but it is more frequently found in drier forest types such as oak forest, pine-oak forest and pine forest.
Elevational range: (620) 1,500–2,700 m
Assessors: SVA, JAM
Refs: [76, 79, 96, 180, 213, 277, 406, 429]

Quercus rugosa Née
LC
United States, Mexico (BCS, SON, CHI, COA, NL, DGO, ZAC, SLP, JAL, AGS, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, Honduras
Tree, up to 30 m tall and trunk 25–70 cm in diameter. A widespread cloud forest species, but mostly dominant in the canopy of oak forest, pine-oak forest, and conifer forest. This is the most abundant and widely distributed Mexican oak species. It regenerates well in open areas and in forest edges derived from agricultural land use. **Common names:** *cu-hó, encino de asta, encino blanco, encino cuero, encino de miel, encino quiebra hacha, encino roble, palo colorado, roble, t-nuyá, tulán*. It is used for poles to build rustic houses and to make tool handles. It is highly valued as a source of firewood and to make charcoal.
Elevational range: 1,800–2,900 m
Assessors: SVA, JAM, MGE
Refs: [24-26, 70, 71, 76, 96, 124, 133, 135, 166, 193-195, 225, 228, 277, 279, 302, 309, 310, 356, 413]

Quercus scytophylla Liebm.
LC
Mexico (NAY, JAL, MIC, MEX, GRO, PUE, OAX)
Medium-sized to large tree, up to 20 m tall. A typical cloud forest species endemic to Mexico, it is also present in oak forest and pine-oak forest. Widely distributed and abundant in the mountains of the western and southern regions of the country. **Common name:** *encino blanco*.
Elevational range: (900) 1,300–2,600 m
Assessors: SVA, JAM
Refs: [76, 79, 180, 225, 277, 278, 357, 410, 413]

Illiciaceae

Illicium floridanum J.Ellis
LC
United States, Mexico (TAM, VER)
Rare as a tree, 3–5 m tall, more frequently found as a shrub, 2–4 m tall. This species occurs in cloud forest (in Mexico) but is also found in pine-oak forest or swamp vegetation (in the United States). **Common names:** *ixcapantl, mata caballo*.
Elevational range: 40–1,700 m
Assessor: JAM
Refs: [4, 137, 225]

Juglandaceae

Carya illinoiensis (Wangehn.) K.Koch
LC
United States, Mexico (COA, NL, TAM, SLP)
Small to medium-sized tree, up to 12 m tall. A cloud forest species but more frequently found in other more seasonal and less humid forest types. In Mexico its natural distribution is restricted to the north-eastern states of the country but trees of this species are often planted in other places. **Synonyms:** *Carya tetraptera* Wangenh., *C. pecan* (Marshall) Engl. & Graebn., *Juglans illinoiensis* (Wangenh.) K.Koch. **Common names:** *damzá, nogal, nogal de cuilapam, nogal liso, nogal morado, nogal de nuez chica, nogal de nuez lisa, nogal pecanero, yaga-sola*. The main product obtained from this tree is the edible, highly valued fruit. Oils from the seed are extracted for the cosmetic industry and the wood is used to make fine furniture and for house finishing. Trees are also planted as an ornamental and shade plant.
Elevational range: 0–1,800 m
Assessors: JAM, Expert Group May 2007
Refs: [103, 253, 267]

Lauraceae

Cinnamomum triplinerve (Ruiz & Pav.) Kosterm.
LC
Mexico (VER, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, French Guiana, Ecuador, Peru, Bolivia, Brazil, Paraguay, Cuba, Dominican Republic, Puerto Rico
Large tree, up to 30 m tall. The presence of this taxon in cloud forest is marginal as it occurs mostly in tropical semi-evergreen forest and tropical rainforest, rarely in pine-oak forest. In Mexico this species has recently become rare because the forest vegetation where it typically grows has been heavily transformed into pastures for raising cattle. **Synonyms:** *Persea cinnamomifolia* Kunth, *P. mexicana* (Meisn.) Hemsl., *Phoebe cinnamomifolia* (Kunth) Nees, *P. mexicana* Meisn., *Cinnamomum cinnamomifolium* (Kunth) Kosterm., *C. mexicanum* (Meisn.) Kosterm.
Elevational range: (50) 200–1,500 (1,750) m
Assessor: FLH
Ref: [198]

Nectandra hihua (Ruiz & Pav.) Rohwer
LC
Mexico (SIN, NAY, JAL, VER, COL, MIC, MOR, PUE, GRO, OAX, TAB, CHS, CAM), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, Ecuador, Peru, Bolivia, Brazil, Paraguay, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico
A tree, 6–20 (30) m tall, rarely a shrub. The presence of this species in cloud forest is marginal as it frequently grows in tropical rainforest and tropical semi-evergreen forest, and less frequently in tropical dry forest or pine-oak forest. There are records of this tree being abundant in some localities. **Synonyms:** *Nectandra albiflora* Lundell, *N. glabrescens* Benth., *Sassafridium macrophyllum* Rose. **Common names:** *aguacatillo, laurel, laurel blanco, laurelillo*.
Elevational range: 50–800 (1,300) m
Assessor: FLH
Refs: [76, 198, 277, 331]

Ocotea veraguensis (Meisn.) Mez
LC
Mexico (SIN, DGO, NAY, JAL, GRO, OAX, CHS, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador
A medium–sized tree, 6–15 (20) m tall. In addition to cloud forest, where it is a rare element, this species also occurs in tropical semi-evergreen forest, tropical rainforest, and more rarely in pine-oak forest and tropical dry forest. Occasionally present in secondary vegetation. **Synonym:** O*cotea escuintlensis* Lundell. **Common name:** *aguacatillo*.
Elevational range: 0–950 (1,450) m
Assessor: FLH
Refs: [76, 198]

Malpighiaceae

Bunchosia lindeniana A.Juss.
LC
Mexico (TAM, SLP, VER, MIC, PUE, GRO, OAX, TAB, CHS, CAM, QTR), Guatemala, Belize, El Salvador, Honduras, Bolivia[?]
Shrub or small tree, 3–8 m tall. Not restricted to, and not frequent in, cloud forest. **Common name:** *vara de flecha*.
Elevational range: (50) 200–1,200 (2,500) m
Assessors: FLH, JAM
Refs: [76, 173, 333, 379]

Malpighia glabra L.
LC
Mexico (NL, TAM, VER, GRO, OAX, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Cuba, Jamaica, Lesser Antilles
Shrub or small tree, 3–7 m tall. This species grows sporadically in cloud forest and pine-oak forest but it is more common in lowland vegetation such as tropical semi-evergreen forest, tropical rainforest and tropical dry forest. **Common names:** *cereza, manzanita*.
Elevational range: 10–1,900 m
Assessors: FLH, JAM
Refs: [29, 73, 74, 223, 288, 379]

Malvaceae

Guazuma ulmifolia Lam.
LC
United States, Mexico (SON, TAM, SIN, DGO, SLP, NAY, JAL, QRO, VER, COL, MIC, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Medium-sized tree, up to 25 m tall, but usually smaller. This species is marginal to cloud forest as it normally occurs in a wide array of lowland forest formations including tropical rainforest, tropical evergreen forest, tropical semi-evergreen forest and tropical dry forest. It can also be found in savannah and is a common component of secondary forests. **Common names:** *acashti, ajillá, ajya, aquich, aquiche, guácima, guácimo, cuaulote, k'olin kakau, majagua de toro, nocuana-yana, palote negro, paradesicua, tablote, tzuni, tzuyui, uigie, ya-ana, yaco granadillo, yaco de venado, zam-mi*.
Elevational range: 0–1,200 m
Assessors: GIM, JAM
Refs: [137, 285, 299, 300, 351]

Hampea longipes Miranda
LC
Mexico (OAX, CHS), Guatemala, Honduras
A small or medium-sized tree, 7–15 m tall. Dioecious tree, common in secondary vegetation of cloud forest and montane rainforest. In Mexico this species is only known from a few localities in Chiapas and Oaxaca.
Elevational range: (150) 900–1,900 (2,300) m
Assessors: NRM, MGE
Ref: [120]

Heliocarpus americanus L.
LC
Mexico (TAM, SLP, JAL, AGS, QRO, HGO, VER, COL, MEX, MOR, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Paraguay, Brazil, Lesser Antilles
A small or medium-sized tree, up to 22 m tall and trunk up to 40 cm in diameter. Not restricted to cloud forest, this species also occurs in forest formations at lower elevations. Abundant and widespread.
Elevational range: 0–2,200 m
Assessors: JAM, MGE
Refs: [58, 279, 438]

Heliocarpus appendiculatus Turcz.
LC
Mexico (SIN, SLP, QRO, HGO, VER, MIC, PUE, GRO, OAX, TAB, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
A medium-sized tree, up to 15 m tall and trunk up to 40 cm in diameter. Found in cloud forest but mostly occurs in vegetation types typical of lower elevations. This taxon is notoriously favoured by human disturbance. **Common names:** *corcho, jolocín blanco, jonote, jonote colorado, majagua, majagua azul, mozote*. The white, inner bark can be shredded and used as rope. Soft timber.
Elevational range: 100–2,200 m
Assessors: JAM, MGE
Refs: [4, 58, 174, 209, 241, 279, 295, 333, 438]

Heliocarpus donnellsmithii Rose
LC
Mexico (TAM, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Lesser Antilles
A medium-sized tree, up to 30 m tall and trunk up to 50 cm in diameter. Not restricted to cloud forest. A pioneer species that is normally not found in primary forest. **Common names:** *bat, cajeta, chintule, corcho, holotsin, jolocín, jonoai, jonote, jonote blanco, majagua jolocín, mosote*. The timber is light and it is used for roofing. The bark is used for making hammocks and beaten to produce a paper-like material.
Elevational range: 0–1,700 m
Assessors: JAM, MGE
Refs: [174, 241, 279, 295, 333, 363, 438, 445]

Heliocarpus mexicanus (Turcz.) Sprague
LC
Mexico (QRO, VER, PUE, GRO, OAX, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica
A small or medium-sized tree, up to 20 m tall or more. Not restricted to cloud forest. A common element in early secondary vegetation. **Common names:** *aguajpó, aguape, jolocín*. The bark mucilage is sometimes used to make syrup clear when making sugar. Timber is light and soft and has little use.
Elevational range: 300–2,200 m
Assessor: JAM
Refs: [58, 241, 279]

Malvaviscus arboreus Cav.
LC
Mexico (CHI, NL, TAM, SIN, DGO, SLP, NAY, JAL, AGS, GTO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Brazil, Dominican Republic, Lesser Antilles
A small understorey tree or more commonly a shrub, less than 5 m tall. Not restricted to cloud forest as the species is common in secondary vegetation at lower elevations. **Common names:** *bequem-tzojol, bizil, chanita, chupamirto, civil, ishlicatapachat, manzanita, mazapán, mazapancillo, monacillo, monaguillo, obelisco de la sierra, quesito, taman-ché'ich*. Reports of juicy fruit eaten by children.
Elevational range: (0) 300–2,300 (2,500) m
Assessors: NRM, MGE
Refs: [65, 76, 120, 123, 207, 357, 445]

Malvaviscus lanceolatus Rose
LC
Mexico (NAY, JAL, VER, MOR, PUE, GRO, OAX, CHS), Guatemala, Nicaragua, Costa Rica
A small tree or more commonly a large shrub not restricted to cloud forest. The species also occurs on stream banks and in understorey montane rainforest and evergreen rainforest.
Elevational range: 1,000–2,000 m
Assessors: NRM, MGE
Ref: [120]

Phymosia rosea (DC.) Kearney
LC
Mexico (CHI, JAL, VER, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala, El Salvador
A small tree, up to 10 m tall, or shrub. Found in cloud forest, this species is common on rocky slopes and in disturbed habitats of milpa landscapes, along fence rows and on roadsides, sometimes near streams. Also occurs in pine forest, oak forest and pine-oak forest. **Synonyms:** *Malva capensis* Sessé & Moc., *Malva rosea* DC., *Malvastrum roseum* (DC.) Hemsl., *Meliphlea vitifolia* Zucc., *Sphaeralcea rosea* (DC.) G.Don, *S. rosea* (DC.) Standl., *S. schenckii* O.E.Ulbr., *S. umbellata* var. *rosea* (DC.) Baker f., *S. vitifolia* (Zucc.) Benth. & Hook.f. ex Hemsl., *S. vitifolia* (Zucc.) Hemsl., *Sphaeroma nutans* (Scheidw. ex Planch.) Kuntze, *S. roseum* (DC.) Schltdl., *S. vitifolium* (Zucc.) Kuntze. Sometimes planted as an ornamental or for medicinal use in some parts of Mexico. In folk medicine the young leaves are boiled to make a drink used to treat diarrhoea. **Common names:** *malvavisco, tansaranté*.
Elevational range: (900) 1,600–3,000 (3,200) m
Assessor: MGE
Refs: [65, 76, 119, 120, 122, 279, 427]

Trichospermum mexicanum (DC.) Baill.
LC
Mexico (COA, SIN, NAY, JAL, HGO, VER, COL, MIC, MEX, PUE, GRO, OAX, TAB, CHS, CAM, QTR), Guatemala, Belize, Honduras, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru
A medium-sized or large tree, up to 33 m tall and trunk up to 50 cm in diameter. Marginal to cloud forest, this species is very common in lower elevation tropical moist vegetation types and rare at higher elevations. A pioneer species typical of secondary vegetation. **Synonyms:** *Belotia mexicana* (DC.) K.Schum., *Grewia mexicana* DC. **Common names:** *corcho colorado, guapetate*. The wood is sometimes used for paper pulp.
Elevational range: 0–1,500 m
Assessors: JAM, MGE
Refs: [174, 209, 241, 279, 333]

MELASTOMATACEAE

Conostegia xalapensis (Bonpl.) D.Don ex DC.
LC
Mexico (TAM, SIN, DGO, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Cuba
Shrub or tree, 2–10 m tall. Found in cloud forest but also occurs in many other vegetation types. Secondary species that is favoured by disturbance. **Synonyms:** *Conostegia lanceolata* Cogn., *C. minutiflora* Rose, *C. viridis* Cogn. ex Donn.Sm. **Common names:** *capulín, capulín de cotorro, capulincillo, chicab, chicabte, cinco negritos, mora, nigua, nigua grande, pasita, popu, serita, tecopulín, tesuate, teshuate, tezhualillo*. Fruit is edible. Wood used for fuelwood and for building fences.
Elevational range: 150–1,700 m
Assessors: GIM, JAM, GCT, RDS
Refs: [6, 8, 58, 173, 207, 295, 351, 377, 445]

Leandra subseriata (Naudin) Cogn.
LC
Mexico (JAL, HGO, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Panama, Colombia, Venezuela, Ecuador
Shrub or small tree, 1–3 (5) m tall. This species occurs in cloud forest, tropical rainforest and in disturbed areas bordering pine-oak forest and secondary vegetation. **Synonyms:** *Clidemia subseriata* Naudin, *C. amblyandra* Naudin, *C. mucida* Markgr., *Leandra mucida* Markgr. **Common names:** *yuva, xiyo*. Leaves are used to cook meat.
Elevational range: 1,300–2,600 m
Assessors: GIM, GCT
Ref: [8]

Miconia calvescens DC.
LC
Mexico (VER, GRO, OAX, CHS), Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay
Shrub or small tree, 2–10 (rarely 15) m tall. This species is marginal to cloud forest as it is more common in tropical rainforest and riparian vegetation. **Synonyms:** *Cyanophyllum magnificum* Groenl., *Miconia magnifica* (Groenl.) Triana.
Elevational range: 100–1,200 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 383]

Miconia dodecandra Cogn.
LC
Mexico (VER, GRO, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, Ecuador, Peru, Bolivia, Brazil, Cuba, Jamaica, Dominican Republic, Puerto Rico, Lesser Antilles
Shrub or tree, 3–15 m. Found in cloud forest, tropical rainforest, tropical semi-evergreen forest, pine-oak forest and disturbed areas. Close to *Miconia mirabilis* (Aubl.) L.O.Williams. **Synonym:** *Melastoma dodecandrum* Desr. non Lour.
Elevational range: 0–2,000 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 86, 207, 377]

Miconia glaberrima (Schltdl.) Naudin
LC
Mexico (JAL, HGO, VER, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala, Belize, Honduras
Shrub or small tree, 1–10 m tall. Found in cloud forest, tropical rainforest, tropical semi-evergreen forest. **Synonyms:** *Melastoma glaberrimum* Schltdl., *Miconia pinetorum* Naudin. Specimens from El Salvador, Colombia, Peru and Bolivia are uncertain and need more comprehensive taxonomic studies. **Common names:** *capulín, nigua, palo tostado, teshuate, uva*.
Elevational range: 100–2,800 m
Assessors: GIM, JAM, GCT, RDS
Refs: [6, 8, 79, 86, 96, 126, 135, 207, 309, 356, 357, 363, 383, 429, 431, 445]

Miconia minutiflora (Bonpl.) DC.
LC
Mexico (VER, PUE, GRO, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Colombia, Venezuela, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Cuba, Lesser Antilles
Shrub or tree 1–7 (15) m. This typical cloud forest species is also present in pine forest, pine-oak forest, tropical semi-evergreen forest, and tropical rainforest, frequently found in riparian habitats. This species seems to be favoured by disturbance. **Synonyms:** *Melastoma minutiflorum* Bonpl., *Miconia borealis* Gleason, *M. minutiflora* (Bonpl.) DC. var. *latifolia* Cogn.
Elevational range: 0–1,700 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 86, 207, 377]

Miconia mirabilis (Aubl.) L.O.Williams
LC
Mexico (GRO), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Colombia, Venezuela, Suriname, French Guiana, Peru, Brazil, Lesser Antilles
Small understorey tree, 2–10 m tall. This species is not restricted to cloud forest as it also occurs in pine-oak forest, tropical semi-evergreen forest and tropical rainforest, and is not uncommon in disturbed areas.
Elevational range: 20–1,800 m
Assessors: GIM, JAM, GCT, RDS
Refs: [8, 86, 207, 383]

MELIACEAE

Trichilia havanensis Jacq.
LC
Mexico (TAM, SIN, SLP, NAY, JAL, GTO, QRO, HGO, VER, COL, MIC, MEX, PUE, GRO, OAX, TAB, CHS, CAM, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Cuba, Jamaica, Haiti, Dominican Republic, Lesser Antilles
Dioecious medium-sized tree, 10–15 m tall. Rare species in cloud forest, it is more typical of tropical rainforest, tropical semi-evergreen forest and tropical dry forest. **Synonyms:** *Moschoxylum cuneatum* Turcz., *Trichilia havanensis* var. *lanceolata* C.DC., *T. havanensis* var. *spathulata* Rose. **Common names:** *bola de ratón, bola de tejón, canache, cahuache, chachalaca, ciruelillo, cololte, colobte, cucharilla, cucharillo, estribillo, garrapatilla, limoncillo, limoncillo zanate, naranjillo, rama tinaja, palo de cuchara, soyoalcoabite, xopilcuahuitl, zapotillo*. The wood is used in construction, to make tool handles, crafts and as an ornamental for altar offerings in the Día de Muertos folk festival (November 1st and 2nd). Seeds are a potential resource for the production of edible oil.
Elevational range: 0–2,800 m
Assessors: GIM, GCT, LSV, RPL
Refs: [4, 41, 58, 76, 79, 115, 137, 172, 173, 180, 207, 229, 238, 277, 280, 295, 351, 356, 357, 363, 445]

Trichilia martiana C.DC.
LC
Mexico (VER, TAB, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Suriname, French Guiana, Brazil, Lesser Antilles
Dioecious tree, 10–25 m tall. Marginal in cloud forest as it is more common in tropical rainforest, tropical semi-evergreen forest and tropical dry forest. Closely related to *Trichilia hirta* L. **Synonym:** *Trichilia oaxacana* S.F.Blake. **Common names:** *bejuco blanco, caobillo, mapahuite cimarrón, palo de aceite, palo de bejuco, tres lomos blancos*. A timber tree.
Elevational range: 0–1,000 (1,900) m
Assessors: GIM, GCT, LSV, RPL
Refs: [173, 236, 280]

MORACEAE

Ficus aurea Nutt.
LC
United States, Mexico (SLP, NAY, JAL, QRO, VER, COL, MIC, PUE, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Cuba, Jamaica, Dominican Republic, Lesser Antilles
Epiphytic or strangler tree, 15–40 m tall. Found in cloud forest, tropical rainforest, tropical semi-evergreen forests, this species is common in secondary growth and riparian habitats. Very variable species and closely related to many others (*Ficus aurea* complex). **Synonyms:** *Ficus cookii* Standl., *F. isophlebia* Standl., *F. jimenezii* Standl., *F. lundellii* Standl., *F. tecolutensis* (Liebm.) Miq., *F. tuerckheimii* Standl. **Common names:** *akuum, álamo, amate, amate matapalo, amate prieto, amatillo, capule, ceiba, cobó, congo, coobó, chiquis, chumbi, higo colorado, higuera, higuera negra, higuera roja, higuerón, jalamate de hoja, matapalo, saiba, tezcalama, tomatillo, tzajal mutut, xalama blanco, zalate*. Shade tree in cattle pastures, where it is also used as fodder. The fruit is eaten occasionally by humans.
Elevational range: 160–1,100 m
Assessors: GIM, GCT
Refs: [18, 174, 359, 401]

Ficus obtusifolia Kunth
LC
Mexico (TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Peru, Ecuador, Bolivia, Brazil
Hemi-epiphytic shrub or tree, 4–25 m tall. With few records in cloud forest, this species is more typical of tropical rainforest, tropical semi-evergreen forest, and oak forest, particularly in riparian habitats. Very variable species (*Ficus obtusifolia* complex). **Synonyms:** *Ficus chiapensis* Lundell, *F. involuta* (Liebm.) Miq. **Common names:** *aguacatillo, amate, amate chango, amate prieto, amatón, chalate, higo, higuera, higuera blanca, higuera prieta, higuerilla, higuerón, hopoy ts'uh, matapalo, sak ahua, talayo, tescalamillo, ubijo copjo, yayo, zalate*. The wood of this species is used for making plywood. Also a widespread shade tree in cattle pastures.
Elevational range: 0–1,550 m
Assessors: GIM, GCT
Refs: [76, 174, 359, 401]

Ficus pertusa L.f.
LC
Mexico (SON, CHI, TAM, SIN, DGO, SLP, NAY, JAL, GTO, QRO, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, TAB, OAX, CHS, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Suriname, Ecuador, Peru, Bolivia, Brazil, Jamaica, Lesser Antilles
Hemi-epiphytic or strangler tree, 5–25 m tall. Rare in cloud forest but common in tropical rainforest, tropical semi-evergreen forest, oak forest and mangroves, this species frequently occurs in riparian habitats. Very variable species (*Ficus pertusa* complex). **Synonyms:** *Ficus padifolia* Kunth, *F. sonorae* S.Watson, *F. trachelosyce* Dugand. **Common names:** *amatcuahuit, amate, amate blanco, amate capulín, amatillo, amezquite, cabrigo, caimito, camichín, capuchina, capul, capulín, ceiba, ceibilla, chileamate, chiquis, cilamatl, congo, copo, coyamat, cuajinicuil, frutillo, higo, higo amate, higo de campo, higo de hoja menuda,*

higo de mono, higuera, higuera blanca, higuera pasa, higuerilla, higuerón, higueroncillo, higuillo, hunchich, incolnoche, jalamate, kaapolin, kop'ok, maca blanco, macahuite, matapalo, nacapul, palo blanco, palo bolero, sakil matapalo, sakilmutut, tijerillo, toc tel, tzajal mutut, tzoy, xalamatl limón, zac chechem, zalate.
Elevational range: 0–2,000 m
Assessors: GIM, GCT
Refs: [18, 58, 76, 174, 359, 401]

Ficus velutina Humb. & Bonpl. ex Willd.
LC
Mexico (SIN, NAY, JAL, VER, COL, MIC, MEX, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador
Hemi-epiphytic or strangler tree, 10–30 m tall. Found in cloud forest but also occurs in tropical rainforest, tropical semi-evergreen forest, pine-oak forest and secondary vegetation. **Synonyms:** *Ficus glycicarpa* (Miq.) Miq., *F. microchlamys* Standl. **Common names:** *amate, camichín, ceiba, chile amate, ficus, higo, higuera, jalamate, matapalo, popozdá, saiba, salate, siranda, tumín, tzirandan, tzotz'niz mutut, xalamatl, zalate*.
Elevational range: 0–2,100 m
Assessors: GIM, GCT
Refs: [79, 278, 351, 359, 401]

Pseudolmedia glabrata (Liebm.) C.C.Berg
LC
Mexico (VER, PUE, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, Honduras, Nicaragua, Costa Rica
Medium-sized to large dioecious tree, 6–30 m tall. In addition to cloud forest, this species is also present in tropical rainforest, tropical semi-evergreen forest, and mangroves, particularly in riparian habitats. **Synonym:** *Pseudolmedia oxyphyllaria* Donn.Sm. **Common names:** *manax, ramón de mico, tomatillo, tepetomate, tsotsax, tsotsash*. An excellent timber tree with edible fruit.
Elevational range: 160–1,800 m
Assessors: GIM, GCT
Refs: [17, 76, 172, 174, 285, 333, 389]

Trophis mexicana (Liebm.) Bureau
LC
Mexico (JAL, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Ecuador
Dioecious tree, 4–10 m tall. This species occurs in cloud forest, tropical rainforest, and tropical semi-evergreen forest, commonly in riparian habitats. **Common names:** *chischillo, confitura, estrellita, huanchal, ramón, ramoncillo*. The fruit is edible.
Elevational range: 190–2,500 m
Assessors: GIM, GCT
Refs: [4, 17, 126, 174, 295, 390]

Trophis racemosa (L.) Urb.
LC
Mexico (SON, TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico
Shrub or tree, up to 20 m tall and trunk up to 50 cm in diameter. Marginal species to cloud forest as it is also found in tropical semi-evergreen forest, tropical dry forest and oak forest. **Synonyms:** *Trohis racemosa* subsp. *ramon* (Schltdl. & Cham.) W.Burger, *T. ramon* Schltdl. & Cham. **Common names:** *campanilla, confitura, huachal, papelillo, ramón colorado, ramón de caballo, ramoncillo, tzumpte*.
Elevational range: 50–1,200 (1,800) m
Assessors: GIM, GCT
Refs: [17, 59]

Myricaceae

Morella cerifera (L.) Small
LC
Mexico (TAM, DGO, NAY, JAL, QRO, HGO, VER, MIC, MEX, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Lesser Antilles
A small tree, up to 15 m tall and trunk up to 15 cm in diameter. A widespread species not restricted to cloud forest as it also occurs in pine-oak forests and in forest formations at lower elevations. Common in secondary vegetation and in open stands. Seedlings can be obtained from seeds previously soaked in water and placed on damp beds (40–65% germination). **Synonyms:** *Myrica cerifera* L., *M. mexicana* Humb. & Bonpl. ex Willd., *M. pumila* (Michx.) Small, *M. xalapensis* Kunth. **Common names:** *árbol de la cera, arbolito de la cera, arrayán, atocamay, cera, cerilla, cera-té, ch'a k'olol te', chac olol, chak-lol, copaltihuitl, encinillo, encino falso, guacanalá, huacanalá, otocamay, satí, satín, seratez, vegetal.* Wax is removed from the fruit surface and can be used to make candles after chemical cleaning. The root bark is astringent and has reported medicinal uses in Guatemala.
Elevational range: 0–3,000 m
Assessors: NRM, MGE
Refs: [58, 79, 96, 124, 133, 135, 137, 147, 180, 229, 241, 279, 295, 302, 305, 309, 333, 429]

MYRSINACEAE

Ardisia compressa Kunth
LC
Mexico (SLP, VER, COL, MIC, MEX, PUE, GRO, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador
Small tree, 3–10 m tall. Frequently found in cloud forest but also occurs in evergreen and tropical semi-evergreen forest, tropical dry forest, and even pine-oak forest. **Synonyms:** *Ardisia aurantiaca* Lundell, *A. capollina* A.DC., *A. digitata* Lundell, *Icacorea aurantiaca* (Lundell) Lundell, *I. compressa* (Kunth) Standl. **Common name:** *chime*.
Elevational range: 250–1,800 (2,500) m
Assessor: FLH
Refs: [2, 4, 174, 228, 351, 363]

Myrsine coriacea (Sw.) R.Br. ex Roem. & Schult.
LC
Mexico (VER, PUE, GRO, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay, Uruguay, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Shrub to medium-sized tree, 5–15 m tall. Common in cloud forest, this species is also frequently found in pine-oak forest and tropical rainforest. **Synonyms:** *Myrsine ferruginea* (Ruiz & Pav.) Spreng., *M. myricoides* Schltdl., *Rapanea coriacea* (Sw.) Mez, *R. ferruginea* (Ruiz & Pav.) Mez, *R. myricoides* (Schltdl.) Lundell. **Common names:** *atzamté, chicoabil*.
Elevational range: 450–2,100 m
Assessor: FLH
Refs: [22, 58, 76, 126, 207, 209, 229, 295, 300, 301, 309, 317, 333, 351, 363, 445]

MYRTACEAE

Calyptranthes pallens Griseb. var. ***pallens***
LC
United States, Mexico (VER, CHS, YUC, QTR), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Bahamas, Cayman Islands, Jamaica, Dominican Republic, Puerto Rico, Lesser Antilles
Small tree, 5–8 m tall. Rare in cloud forest, this species is more common in tropical rainforest and tropical semi-evergreen forest. This tree is a source of firewood.
Elevational range: 0–1,200 m
Assessor: FLH
Refs: [174, 305, 355]

Eugenia acapulcensis Steud.
LC
Mexico (SON, TAM, SLP, NAY, JAL, HGO, VER, COL, MIC, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela
Shrub to medium-sized tree, 10–20 m tall. Marginal in cloud forest, this species is more typical of forests at elevations below 1,500 m. In Mexico it only reaches cloud forest elevation (above 1,500 m) in Chiapas. Widespread and abundant. **Synonyms:** *E. campechiana* Lundell, *E. comitanensis* Lundell, *E. escuintlensis* Lundell. **Common names:** *capulín, capulincillo, chazá, escobilla, guayabillo, palo agrio, vizcarona*.
Elevational range: 0–2,300 m
Assessors: FLH, Expert Group May 2007
Refs: [13, 76, 174, 228, 355]

Eugenia capuli (Schltdl. & Cham.) Hook. & Arn.
LC
Mexico (TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, MIC, PUE, GRO, OAX, TAB, CHS, CAM, QTR), Guatemala, Belize, Honduras
Shrub to small tree, 2–8 m tall. Frequently found in cloud forest, oak forest, pine-oak forest, tropical rainforest, tropical semi-evergreen forest, and occasionaly present in tropical dry forest (widespread below 600 m). **Synonyms:** *Eugenia schiedeana* Schltdl., *E. tenuissima* Lundell. **Common names:** *arrayán, capulín, capulín agarroso, capulín de zorrillo, capulín capulincillo, escobillo(a), frutilla, guayabillo cimarrón, palo de temazate, piste, rayanillo, yagalán.*
Elevational range: 0–1,300 (1,750) m
Assessor: FLH
Refs: [58, 76, 174, 209, 228, 300, 301, 355, 363, 445]

Myrcia splendens (Sw.) DC.
LC
Mexico (VER, OAX, CHS, TAB), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Cuba, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Small tree, 3–10 m tall. Rare in cloud forest, this species is frequently found in tropical rainforest, oak forest and pastures derived from these vegetation types. **Common names:** *capulincillo, escobilla, escobilla de río, escobillo blanco, rosadillo morado, yagalán*.
Elevational range: 100–1,300 m
Assessor: FLH
Ref: [355]

Myrcianthes fragrans (Sw.) McVaugh
LC
United States, Mexico (TAM, SIN, DGO, SLP, NAY, JAL, QRO, VER, MIC, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bahamas, Cuba, Cayman Islands, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Medium-sized to large tree, 10–25 (rarely 35) m tall. Found in cloud forest, oak forest, pine-oak forest, tropical rainforest, tropical semi-evergreen forest, and occasionally present in tropical dry forest. **Common names:** *arrayán, arrayán prieto, capulín de hueso, guayabillo, guayabillo agrio, palo guinda, pimientillo*.
Elevational range: 750–1,500 m
Assessor: FLH
Refs: [58, 76, 79, 229, 238, 277, 278, 356, 429]

Myrciaria floribunda (H.West ex Willd.) O.Berg
LC
Mexico (VER, GRO, OAX, TAB, CHS, CAM), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Paraguay, Cuba, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Shrub to medium sized tree, 4–15 m tall. Rare in cloud forest but frequently found in tropical rainforest. **Synonym:** *Myrciaria mexicana* Lundell. **Common names:** *chepucuy, escobilla*.
Elevational range: 150–1,300 m
Assessor: FLH
Refs: [29, 355]

Oleaceae

Fraxinus uhdei (Wenz.) Lingelsh.
LC
Mexico (COA, SIN, DGO, ZAC, SLP, NAY, JAL, AGS, GTO, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, Honduras, Costa Rica
A medium-sized or more commonly a large tree, up to 35 m tall. A widespread cloud forest species, it is also found in pine forest, pine-oak forest, as well as other tropical lowland vegetation types. Frequently occurs along stream banks and is generally abundant in riparian habitats. Vouchers from Bolivia with elevation above 3,400 m in *TROPICOS* correspond to introduced plants. **Synonyms:** *Fraxinus americana* var. *uhdei* Wenz., *F. cavekiana* Standl. & Steyerm., *F. chiapensis* Lundell, *F. hondurensis* Standl. **Common names:** *fresno, fresno asemillado, madre de agua, paramu*. The wood is used to make furniture and tools, and for medicinal purposes. Frequently cultivated throughout its range and in several countries it is used as a shade tree in streets and parks. It is also used for reforestation.
Elevational range: (150) 1,300-2,240 m
Assessors: RDC, MGE
Refs: [2, 58, 76, 79, 135, 152, 180, 277–279, 309, 343, 348, 349, 351, 356, 357, 428, 429, 438, 445]

Onagraceae

Fuchsia arborescens Sims
LC
Mexico (JAL, HGO, VER, MIC, MOR, GRO, OAX)
A small tree, up to 8 m tall. Not restricted to cloud forest. Widespread in Mexico. **Synonym:** *Fuchsia arborea* Sessé & Moc. **Common names:** *adelaida, aretillo, atesúcil, atexúxhil, chorros, don diego de día, flor de arete, lipa-cauadz*. Cultivated as an ornamental tree.
Elevational range: 1,200–2,600 m
Assessors: SAC, MGE
Refs: [2, 76, 79, 96, 115, 180, 207, 238, 279, 357]

Fuchsia paniculata Lindl.
LC
Mexico (VER, PUE, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
A small tree, up to 10 m tall. Widespread in Mexico in forests above 1,600 m elevation. It is a common element in forest gaps within cloud forest. Seeds remain viable after one year of storage (20–30% germination). Seedlings grow better if not exposed to direct sunlight. This species has frequently been erroneously identified in Central American locations as *Fuchsia arborescens* Sims, which only occurs in Mexico from Jalisco to Oaxaca. **Synonyms:** *Fuchsia arborescens* Sims var. *megalantha* Donn.Sm., *F. arborescens* var. *syringiflora* Lem., *F. arborescens* fo. *parva* Munz, *F. arborescens* fo. *tenuis* Munz, *F. liebmannii* H.Lev., *F. syringiflora* (Lem.) Carrière. **Common names:** *aretillo, canelillo*.
Elevational range: 900–3,200 m
Assessors: SAC, MGE
Refs: [23, 135, 302, 309]

Papaveraceae

Bocconia arborea S.Watson
LC
Mexico (BC, SON, NL, TAM, SIN, DGO, SLP, NAY, JAL, GTO, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica
A small tree, up to 8 m tall. Not restricted to cloud forest as this species occurs in humid or wet habitats. Favoured by disturbance and common in secondary vegetation. **Common names:** *árbol de judas, capul, chicalote de árbol, cococxihuitl, cuachile, enguamba, enguambe, enguambo, enguande, hediondilla, inguande, inhuambo, jauque, jediondilla, llorasangre, mano de león, palo amarillo, palo del diablo, palo de judas, tlacoxihuatl*. It is used as an ornamental and yellow dye is obtained from the bark. Medicinally it is used as an anaesthetic for toothache.
Elevational range: (180) 900–2,900 m
Assessors: SAC, MGE
Refs: [76, 115, 207, 228, 241, 279]

Bocconia frutescens L.
LC
Mexico (NL, TAM, SIN, SLP, NAY, JAL, GTO, QRO, HGO, VER, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Argentina, Bahamas, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
A small tree, up to 3 m tall. Not restricted to cloud forest but also occurs in forest formations at lower elevations, in moist thickets. **Synonyms:** *Bocconia glauca* Salisb., *B. pearcei* Hutch., *B. quercifolia* Moench, *B. sinuatifolia* Stokes, *B. subtomentosa* L'Her. ex Stahl. **Common names:** *calderón, coacuahuitl, cojojehuite, contsitslats, cuatlatlaya, cuauchichili, guachile, guachili, inguande, llorasangre, mano de león, palo amarillo, palo santo, tlacoxíhuitl*. Medicinally it is used for the treatment of skin eruptions, chronic eye problems and the removal of warts. The yellow sap is used as dye.
Elevational range: 320–2,370 (2,800) m
Assessors: SAC, MGE
Refs: [4, 22, 34, 58, 70, 76, 96, 137, 174, 209, 241, 279, 295, 333, 438]

Pentaphylacaceae

Cleyera integrifolia (Benth.) Choisy
LC
Mexico (SIN, DGO, JAL, COL, MIC, MEX, MOR, GRO, OAX, CHS)
Large shrub or small tree, up to 15 m tall. This Mexican endemic, typical cloud forest species is also present in pine forest, fir forest, oak forest and pine-oak forest. Overall, this species is considered to be fairly widespread in Mexico. **Synonym:** *Freziera integrifolia* Benth. **Common names:** *aceituna, balero, capulincillo, capulín de virgen, cueng, garambullo, limoncillo, naranjillo, palo prieto, palo verde, tchcari-charapiti, tilia roja*. The wood has been used in the manufacture of guitars, boxes and furniture. The fruit may be edible.
Elevational range: 1,350–3,050 m
Assessors: ILV, JAM, GIM
Refs: [2, 51, 70, 76, 79, 96, 145, 180, 211, 212, 236, 348, 357, 429, 431]

Pinaceae

Pinus maximinoi H.E.Moore
LC
Mexico (SIN, NAY, JAL, HGO, VER, COL, MIC, MEX, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua
Large tree, up to 35 m tall with a very straight, clear trunk, up to 1 m in diameter. **Synonyms:** *Pinus douglasiana* Martínez var. *maximinoi* (H.E.Moore) Silba, *P. tenuifolia* Benth. **Common names:** *pino, ocote, toj*. The wood of this species is used for timber and firewood.
Elevational range: (650) 1,000–2,500 (3,000) m
Assessors: RDC, JAM
Refs: [76, 96, 115, 279, 291, 305, 309, 357, 429]

Pinus montezumae Lamb.
LC
Mexico (CHI, COA, NL, TAM, DGO, ZAC, SLP, JAL, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala
Large tree, 35–40 m tall and trunk up to 80 cm in diameter. This tree is rare in cloud forest as it normally occurs in somewhat drier and cooler conditions, very frequently forming monospecific stands. The best growth of this species is attained in well-drained sites and lower slopes of mountains. **Synonyms:** *Pinus filifolia* Lindl., *P. montezumae* Lamb. var. *lindleyi* Loudon, *P. montezumae* Lamb. var. *mezambrana* Carvajal. **Common names:** *chamaite blanco, pino, pino blanco, ocote, ocote macho, toj*. This is a major timber tree. The wood is used as firewood and for producing charcoal, as well as for making houses, boxes, railroad tracks and for many other purposes.
Elevational range: 1,900–3,200 m
Assessor: JAM
Refs: [76, 108, 209, 252, 267, 291, 309]

Pinus patula Schltdl. & Cham.
LC
Mexico (NL, TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador, Honduras
Large tree, usually up to 30 m tall (occasionally 40 m) and trunk up to 90 cm in diameter. Widespread in Mexico, this species occurs in cloud forests but also in moist pine forests. Often associated with fir (*Abies*). **Common names:** *pino, pino triste, ocote colorado*. Used for timber production, this species has been used in commercial plantations in Mexico, Colombia, Costa Rica, Bolivia, Brazil, Ecuador, Panama, South Africa, Tanzania and Zimbabwe.
Elevational range: 1,500–3,100 m
Assessors: RDC, JAM
Refs: [4, 69, 137, 213, 225, 229, 291, 335]

Pinus pseudostrobus Lindl. var. ***apulcensis*** (Lindl.) Shaw
LC
Mexico (HGO, VER, MEX, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador
Large pine tree, up to 45 m tall and trunk up to 1 m in diameter. The occurrence of this variety in cloud forest is marginal; conversely, it is dominant in pine-oak forests. It regenerates well in open areas and is favoured by canopy openings and forest clearings. **Synonym:** *Pinus apulcensis* Lindl., *P. oaxacana* Mirov. **Common names:** *ocote, pino, pino chalmaite, sac toj*. The timber of this pine is highly valued for its quality for house construction.
Elevational range: 1,800–2,600 m
Assessors: RDC, JAM
Refs: [76, 107, 124, 133, 279, 291, 304, 306–310]

Pinus pseudostrobus Lindl. var. ***pseudostrobus***
LC
Mexico (TAM, JAL, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, Honduras
Large tree, up to 45 m. Marginal to cloud forest, this pine is more typical of oak forest and pine-oak forest where it is often dominant in the canopy. This variety, the most typical of the species, is not only widespread but also very abundant. **Common names:** *mocochtaj, ocote, pacingo, pino, pino blanco, pino cantzimbo, pino ortiguillo, pino real*. Its timber is valued for its quality for house construction. The trees are tapped for resin.
Elevational range: (350) 1,000–2,500 (3,200) m
Assessors: RDC, JAM
Refs: [4, 69–71, 96, 115, 124, 133, 166, 225, 291, 295]

Pinus teocote Schltdl. & Cham.
LC
Mexico (CHI, COA, NL, TAM, SIN, DGO, ZAC, SLP, JAL, AGS, HGO, VER, MIC, MEX, DF, MOR, PUE, GRO, OAX, CHS)
Medium-sized pine, up to 25 m tall. This species occurs across a broad range of environmental conditions and its presence in cloud forest is marginal. More commonly it grows in association with other pine species, frequently in open forest stands. **Synonyms:** *Pinus besseriana* Roezl, *P. hugelii* Roezl ex Carrière, *P. microcarpa* Lamb., *P. muelleriana* Roezl, *P. patula* var. *stricta* Benth. ex Endl., *P. teocote* var. *macrocarpa* Shaw, *P. vilmoriniana* Roezl, *P. vilmoriniana* var. *besseriana* (Roezl) Carrière. **Common names**: *huichil, ocote, ocotl, pino chino, pino colorado, pino real, pino teocote, teocote*.
Elevational range: (1,000) 1,400–3,000 m
Assessor: JAM
Refs: [29, 76, 107, 108, 238, 252, 277, 291]

Piperaceae

Piper aduncum L.
LC
Mexico (VER, OAX, CHS, YUC), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Ecuador, Peru, Bolivia, Brazil
Shrub or small tree, 2–5 (rarely 9) m tall. This species is frequently found in cloud forest, tropical semi-evergreen forest and tropical rainforest. As a shrub it is common in disturbed areas, and considered probably the most frequent species of the genus in tropical America.
Elevational range: 10–1,500 m
Assessor: FLH
Refs: [76, 174, 396]

Piper auritum Kunth
LC
Mexico (SLP, VER, TAB, CHS, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Jamaica
Shrub to small tree, 2–4 (6) m tall. Found in cloud forest and tropical semi-evergreen forest, this species is rare in undisturbed vegetation but very common in the edge of forest and clearings. **Common names:** *acuyo, hoja santa*. Leaves are used as a condiment during cooking of several foods.
Elevational range: 0–1,500 m
Assessor: FLH
Refs: [174, 395, 445]

Piper obliquum Ruiz & Pav.
LC
Mexico (VER, CHS, OAX), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, French Guiana, Ecuador, Peru, Bolivia, Brazil
Shrub or slender tree, up to 8 m tall. Rare in cloud forest, this species mostly occurs in tropical semi-evergreen forest and tropical rainforest.
Elevational range: (50) 200–1,400 (2,000) m
Assessor: FLH
Refs: [174, 394]

Piper sanctum (Miq.) Schltdl. ex C.DC.
LC
Mexico (NAY, JAL, HGO, VER, MIC, PUE, GRO, CHS), Belize, El Salvador, Nicaragua, Costa Rica, Panama
Shrub to small tree, 4–6 m tall. Found in cloud forest but more common in tropical semi-evergreen forest and tropical rainforest. Occasionaly found in oak forest but frequently occurs in disturbed areas. **Common name:** *cordoncillo*.
Elevational range: (50) 200–1,500 (2,000) m
Assessor: FLH
Refs: [174, 396]

Rhamnaceae

Ceanothus coeruleus Lag.
LC
Mexico (SON, CHI, COA, TAM, SIN, DGO, ZAC, SLP, NAY, JAL, AGS, GTO, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala
A small tree, up to to 7.5 m tall. Marginal in cloud forests, this species is abundant in secondary vegetation associated with more seasonal high elevation forests such as pine, pine-oak, oak and conifer forest. The impermeable cuticle must be removed from the seeds to allow germination (50–90%). **Synonyms:** *Ceanothus azureus* Desf. ex DC., *C. bicolor* Willd. ex Roem. & Schult., *C. candolleanus* Rose, *C. glandulosus* Schltdl., *C. parvifolius* (S.Watson) Rose. **Common names:** *chaquira, chaquirilla, cuaicuastle, jága'n, muktik-pomos, origan, palo colorado, sayolistle, tlaxiste, tlaxistle, tnu-yoocó, vara colorada*. Planted for live hedges. Timber is used to build farmyard fences to enclose domestic animals.
Elevational range: 1,800–3,200 (4,000) m
Assessors: SAC, MGE, GIM
Refs: [70, 71, 76, 96, 109, 110, 112, 113, 279, 309]

Colubrina ehrenbergii Schltdl.
LC
Mexico (NL, TAM, SLP, JAL, GTO, QRO, HGO, OAX)
A small tree endemic to Mexico but widespread in the country. Not restricted to cloud forest.
Elevational range: 1,500–2,300 m
Assessor: SAC
Refs: [110, 112]

Rhamnus capreifolia Schltdl. var. ***capreifolia***
LC
Mexico (TAM, SLP, NAY[?], QRO, HGO, VER, PUE, OAX), Guatemala, El Salvador, Costa Rica
A shrub or small to medium-sized tree, up to 23 m tall, but more frequently c. 8 m tall. A cloud forest taxon that also occurs in oak forest, pine-oak forests and in tropical dry forest at lower elevations. It may be locally abundant in open areas or in edges of secondary forests. **Synonym:** *Frangula capreifolia* (Schltdl.) Grubov. **Common names:** *palo amarillo, palo de zorra*.
Elevational range: (700) 1,000–1,700 (2,500) m
Assessors: MGE, NRM
Refs: [109, 112, 182]

Rhamnus mucronata Schltdl.
LC
Mexico (DGO, ZAC, NAY, JAL, HGO, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador
A small tree, up to 9 m tall, but more commonly a shrub. A cloud forest species, it also occurs in humid oak and pine-oak forests. A widespread and apparently highly variable species. Very similar to *Rhamnus nelsonii* Rose in Chiapas. Possibly closely related to *R. sphaerosperma* Sw. var. *mesoamericana* M.C.Johnst. & L.A.Johnst. **Synonym:** *Rhamnus obliqua* Rose. **Common name:** *manzanilla*.
Elevational range: (1,500) 1,900–2,500 (3,000) m
Assessors: SAC, MGE
Refs: [76, 96, 110, 113, 182, 228]

Rhamnus nelsonii Rose
LC
Mexico (CHS), Guatemala
A small tree, up to 9 m tall. Not restricted to cloud forest as it also occurs in pine-oak or conifer forest at higher elevations. In Chiapas it is restricted to the Central Plateau above 1,900 m. Abundant in secondary vegetation. **Common name:** *manzanilla*.
Elevational range: 1,900–3,000 m
Assessors: NRM, MGE
Refs: [279]

Rhamnus serrata Humb. & Bonpl. ex Schult.
LC
United States, Mexico (CHI, COA, NL, TAM, DGO, SLP, GTO, QRO, HGO, MEX, DF, MOR, TLA, OAX, CHS), Guatemala
A small tree, up to 6 m tall. Not restricted to cloud forest as it is also found in ravines and open habitats of pine-oak and oak forest. Widespread in Mexico. **Synonym:** *Rhamnus serrulata* Kunth. **Common names:** *ahuatl tepitón, capulín cimarrón, capulincillo, naranjillo, tlacapulín, tlalcapolín*.
Elevational range: 2,000–3,000 m
Assessor: SAC
Refs: [58, 110, 112, 113, 182]

Rhamnus sharpii M.C.Johnst. & L.A.Johnst.
LC
Mexico (NAY, COL, OAX, CHS), Guatemala, Costa Rica, Panama
A small or medium-sized tree, up to 15 m tall and trunk up to 25 cm in diameter. In Mexico it occurs mostly in Chiapas. Common in secondary vegetation in moist conditions and on deep or moderately deep soils associated with oak, pine-oak and cloud forest. The impermeable cuticle must be removed from the seeds to allow germination (60–95%). **Synonyms:** *Rhamnus capreifolia* var. *discolor* Donn.Sm., *R. discolor* (Donn.Sm.) Rose. **Common name:** *palo amarillo*. Frequently used for firewood.
Elevational range: (500) 1,200–2,700 (3,500) m
Assessors: NRM, MGE
Refs: [135, 182, 278, 302, 304, 309]

ROSACEAE

Cercocarpus macrophyllus C.K.Schneid.
LC
Mexico (COA, NL, TAM, SIN, DGO, ZAC, SLP, NAY, JAL, AGS, GTO, QRO, HGO, VER, COL, MIC, MEX, PUE, GRO, OAX)
Large shrub or small tree, up to 10 m tall. This Mexican endemic taxon is widespread in the temperate mountainous regions of Mexico. Abundant in cloud forest, pine forest, oak forest and pine-oak forest, it also occurs in drier and more thermophyllous communities such as tropical dry forest. **Common names:** *huasteco, limoncillo, margarito, palo bandito, ramón, ramoncillo.*
Elevational range: (1,500) 1,750–3,250 m
Assessor: JAM
Refs: [4, 58, 344]

Crataegus gracilior J.B.Phipps
LC
Mexico (NL, TAM, SLP, QRO, HGO, VER, PUE)
A small tree species, 4–6 (10) m tall, sometimes with shrubby growth habit. Abundant in secondary vegetation derived from cloud forest, oak forest and pine-oak forest in Querétaro. Endemic to the northeastern and eastern portions of Mexico (Sierra Madre Oriental). Its morphology is not easily differentiated from *Crataegus mexicana* DC. from the Eje Neovolcánico Transversal (Trans-Mexican Volcanic Belt) and the geographical origin of the collections is frequently needed for identification. Evidence of genetic introgression has been reported from some contact areas. The fruit is edible but does not have the same quality and economic value as those of *Crataegus mexicana* DC. (*tejocote*), yet along with this latter species it is considered a potential source of higher quality germplasm for plant breeding in horticulture. **Synonyms:** *Crataegus pubescens* Steud., *Mespilus pubescens* Kunth. **Common names:** *tejocote, tejocote sin espinas*.
Elevational range: 1,100–2,400 m
Assessors: MGE, NRM
Refs: [271, 295, 344]

Crataegus mexicana Moc. & Sessé ex DC.
LC
Mexico (SLP, JAL, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala
Small tree species, 4–6 (10) m tall, frequently with a shrubby growth habit. Marginal in cloud forest, this species is more common in disturbed, open and grazed areas and meadows of pine-oak forests. Distribution is mostly along the Eje Neovolcánico Transversal of Central Mexico. Evidence of genetic introgression with *Crataegus gracilior* J.B.Phipps from the Sierra Madre Oriental. Distribution in southern Mexico and Guatemala suspected to be due to introduction by indigenous groups from central Mexico who were forced to immigrate there by Spaniards in early Colonial times. Introduced and naturalized in several South American countries. Seeds can be obtained from crushed fruit fermented in plastic bags for a week. The seeds must be washed in lukewarm water before germinating them on damp beds or in plastic bags. The seedlings can be maintained in nurseries for up to a year before being transplanted into the field. **Synonyms:** *Crataegus hypolasia* K.Koch, *C. subserrata* Benth. **Common names:** *karasa, karash, karasu, karhasi, manzanilla, manzanillo, manzanita, manzanita tejocotera, tejocote*. The species is regarded as a resource for honey bees. Its very hard wood is used for firewood and to make tool handles. The fruit is edible and has high commercial value; it is eaten fresh or in traditional jellies and candies called *ates*. Sometimes cultivated within its native geographical range, this species is also cultivated in El Salvador, Costa Rica, and Ecuador where it was probably introduced from Mexico.
Elevational range: 1,400–2,750 m
Assessors: MGE, NRM
Refs: [236, 279, 295, 309, 344, 427]

Holodiscus argenteus (L.f.) Maxim.
LC
Mexico (VER, GRO, OAX, CHS), Guatemala, Honduras, Costa Rica, Panama, Colombia
A small or medium-sized tree up to 20 m tall. Not restricted to cloud forest. This species is also found in secondary stands derived from cloud forest, oak forest and pine-oak forest. Not abundant. **Synonyms:** *Holodiscus fissus* (Lindl.) C.K.Schneid., *H. loeseneri* Dammer, *Sericotheca fissa* (Lindl.) Rydb., *S. velutina* Rydb., *Spiraea argentea* L.f., *S. fissa* Lindl. The foliage is used as fodder for livestock.
Elevational range: (1,500) 2,000–3,500 (4,000) m
Assessors: NRM, MGE
Refs: [96, 115, 279]

Prunus serotina Ehrh. subsp. ***capuli*** (Cav. ex Spreng.) McVaugh
LC
United States, Mexico (TAM, NAY, JAL, AGS, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala, El Salvador
Medium-sized tree, 15–20 m tall and trunk up to 70 cm in diameter. A widespread and abundant secondary taxon, this subspecies is not restricted to cloud forest as it is also present in oak forest, pine-oak forest and pine forest. Widespread in Mexico, it is a common element in secondary vegetation. Naturalized in South America and Europe. After removal of the pulp, seeds germinate easily (90–100%) and maintain their viability for several years if kept at low temperatures. Seedlings can be readily obtained from seeds placed on damp soil beds. Seedlings are sensitive to drought. **Synonyms:** *Prunus capuli* Cav., *P. salicifolia* Kunth, *P. serotina* var. *salicifolia* (Kunth) Koehne. **Common names:** *capolín, capulín, capulín blanco, cerezo, cusabi, jeco, pakshumk, paté, shimal-ma-lu, shencua, shengua, t-nundaya, tzu'uri, uasiqui, xengua*. This tree is economically important due to its edible fresh fruit, commonly sold in markets during the spring and summer months;

also used cooked in several ways. Timber is used as a source of firewood and valued for making poles and fine furniture, live hedges and guitar parts. It has uses in traditional medicine.
Elevational range: 1,325–3,800 m
Assessors: NRM, MGE
Refs: [4, 58, 70, 71, 76, 79, 96, 115, 133, 135, 137, 229, 238, 277, 279, 295, 300–302, 309, 344, 445]

Prunus skutchii I.M.Johnst.
LC
Mexico (VER, CHS), Guatemala, Nicaragua, Costa Rica, Venezuela
Large tree, up to 36 m tall and trunk up to 1.5 m in diameter. Not restricted to cloud forest, this species is more common in montane rainforest at lower elevations.
Elevational range: 900–1,400 (2,480) m
Assessors: NRM, MGE
Ref: [279]

Rubiaceae

Chiococca pachyphylla Wernham
LC
Mexico (NL, TAM, DGO, SLP, NAY, JAL, QRO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia
Shrub or small tree, 2–10 m tall. For Costa Rica, Burger and Taylor [33] cited this species as being a liana, rarely a shrub. This species occurs in cloud forest, oak forest, oak-pine forest, and drier thickets, frequently in riparian habitats. Related to *Chiococca alba* (L.) Hitch. and *C. phaenostemon* Schltdl. **Synonyms:** *Chiococca belizensis* Lundell, *C. mexicana* Lundell, *C. rubriflora* Lundell. **Common names:** *quebradora, tronadora*. Boiled leaves are used as a remedy for diarrhoea.
Elevational range: 0–2,400 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 76, 79, 137, 236, 277–279, 357, 429]

Faramea occidentalis (L.) A.Rich.
LC
Mexico (SLP, NAY, JAL, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Suriname, French Guiana, Ecuador, Peru, Brazil, Cuba, Jamaica, Dominican Republic, Puerto Rico, Lesser Antilles
Small tree, 2–8 m tall. Marginal in cloud forests, this species is more common in tropical rainforest and tropical semi-evergreen forest, frequently in riparian habitats. **Synonyms:** *Ixora occidentalis* L., *Faramea belizensis* Standl. **Common names:** *azuncenilla, cafecillo, huesillo, huesito, hueso, hueso de sapo.* The wood is used in construction and as firewood.
Elevational range: 0–1,800 m
Assessors: GIM, FLH, GCT
Refs: [27, 174, 202, 279]

Genipa americana L.
LC
Mexico (NAY, JAL, VER, GRO, OAX, TAB, CHS, CAM), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Brazil, Cuba, Haiti, Puerto Rico, Lesser Antilles
Small to medium-sized tree, 5–20 m tall. Marginal to cloud forest, this species is more typical of tropical rainforest and tropical semi-evergreen forest, frequently in riparian habitats. **Synonyms:** *Genipa caruto* Kunth, *G. codonocalyx* Standl., *G. venosa* Standl. **Common names:** *illuale, jagua, jagua azul, jagua blanca, maluco, tejoroso, tejoruco, shagua, xagua, xahua, yaguare, yoale, yuale*. This is a highly valued timber tree with edible fruit. It was used as a source of dye.
Elevational range: 20–1,850 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 174, 279]

Hamelia calycosa Donn.Sm.
LC
Mexico (JAL, VER, OAX, CHS), Guatemala, Belize, Honduras, Costa Rica[?], Panama, Colombia, Ecuador, Peru
Shrub or small tree, 3–12 m tall. Marginal to cloud forest, this species is more common in tropical rainforest, frequently found in riparian habitats. **Synonym:** *Hamelia chiapensis* Brandegee. **Common names:** *cihuapate, clavo panelilla*.
Elevational range: 120–1,940 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 279]

Hamelia patens Jacq.
LC
United States, Mexico (NL, TAM, SIN, DGO, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Bolivia, Paraguay
Shrub or small tree, 1–4 m tall. Marginal in cloud forest, this species is considerably more common in secondary vegetation derived from tropical rainforest. **Synonyms:** *Hamelia corymbosa* Sessé & Moc., *H. erecta* Jacq., *H. lanuginosa* M.Martens & Galeotti. **Common names:** *cacahuapastle, cacanapazue, cacapuate, canela montés, cañutillo, chac-loc, coralillo, chacloco, hierba del toro, kanan, madura plátano, maravilla, pañete, suspinché, tochimitillo, vara prieta, zipate*.
Elevational range: 0–1,800 m
Assessors: GIM, FLH, GCT
Refs: [27, 279]

Palicourea padifolia (Willd. ex Roem. & Schult.) C.M.Taylor & Lorence
LC
Mexico (SLP, HGO, VER, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Ecuador
Shrub or small tree, 1–8 m tall. In addition to cloud forests, this species occurs in many other vegetation types including secondary vegetation. **Synonyms:** *Palicourea galeottiana* M.Martens, *P. mexicana* Benth. ex Oerst., *Psychotria mexicana* Willd. ex Roem. & Schult. **Common names:** *flor de mayo, ipecacuana*.
Elevational range: 800–2,400 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 202, 207, 279, 295, 309, 445]

Posoqueria latifolia (Rudge) Roem. & Schult.
LC
Mexico (VER, GRO, OAX, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Venezuela, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Puerto Rico
Small to medium-sized tree, 4–15 m tall. Although present in cloud forest, most specimens of this species have been collected in lowland habitats, especially in tropical rainforest. **Synonym:** *Posoqueria coriacea* M.Martens & Galeotti. Occasionally used as firewood.
Elevational range: 150–1,700 m
Assessors: GIM, FLH, GCT
Refs: [27, 33, 174, 207, 279, 333]

Psychotria trichotoma M.Martens & Galeotti
LC
Mexico (JAL, VER, GRO, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Argentina
Shrub or small tree, 1.5–8 m tall. This cloud forest species is also present in lowland forests. **Synonym:** *Psychotria glabristipula* Steyerm. **Common names:** *cañutillo, macashpit-quiui, macspitquiui, palo de agua, pito*.
Elevational range: 30–1,700 m
Assessors: GIM, FLH, GCT
Refs: [27, 158, 207, 279]

Rutaceae

Zanthoxylum mollissimum (Engl.) P.Wilson
LC
Mexico (JAL, COL, GRO, OAX[?], CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica
Small tree, 4–7 m tall. Found in cloud forest, pine-oak forest, and tropical semi-evergreen forest, this species occasionally occurs in dry tropical forest. **Synonym:** *Zanthoxylum matudae* Lundell.
Elevational range: 900–1,600 m
Assessor: FLH
Ref: [351]

Zanthoxylum rhoifolium Lam.
LC
Mexico (OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay, Uruguay, Lesser Antilles
Small to medium–sized tree, 6–20 m tall. This species occurs in cloud forest and tropical semi-evergreen forest. **Synonyms:** *Fagara microcarpa* (Griseb.) Krug & Urb., *F. rhoifolia* (Lam.) Engl., *Zanthoxylum microcarpum* Griseb.
Elevational range: 750–1,600 m
Assessor: FLH

Zanthoxylum melanostictum Schltdl. & Cham.
LC
Mexico (JAL, VER, PUE, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru
Small to medium-sized tree, 3–12 (20) m tall. Found in cloud forest, tropical rainforest, tropical semi-evergreen forest, oak forest, and secondary vegetation derived from the degradation of these forests. **Synonyms:** *Fagara bijuga* Engl., *F. melanosticta* (Schltdl. & Cham.) Engl., *Zanthoxylum bijugum* (Engl.) Wilson, *Z. durifolium* Lundell, *Z. xicense* Miranda.
Elevational range: (850) 1,300–2,550 m
Assessor: FLH
Refs: [124, 126, 180, 207, 229, 236, 295, 309, 363]

Salicaceae

Casearia corymbosa Kunth
LC
Mexico (TAM, SIN, SLP, NAY, JAL, VER, COL, MIC, MEX, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Peru, Argentina
Shrub or medium-sized deciduous tree, up to 11 m (rarely 20 m) tall. Marginal in cloud forest, this species mainly occurs in lowland tropical forests including tropical rainforest and tropical dry forest, although it is not uncommon in temperate forests such as oak forest and pine-oak forest. It is relatively abundant in secondary vegetation. **Synonyms:** *Casearia nitida* (L.) Jacq., *C. pringlei* Briq., *C. salicifolia* Turcz., *C. dubi*a DC., *C. dolichophylla* Standl. **Common names:** *abal-chichich, botoncillo, café cimarrón, cafecillo, cafetillo, chililllo, obatel, pinol-cuáuit, xmaben-ché*. Used as firewood.
Elevational range: 0–1,500 (1,800) m
Assessors: JAM, SVA
Refs: [225, 263, 279, 333]

Casearia sylvestris Sw.
LC
Mexico (SIN, SLP, NAY, JAL, VER, PUE, GRO, OAX, TAB, CHS, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay, Uruguay, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Small tree, up to 9 m tall. This species is rare as a cloud forest element and in fact, apparently only in Oaxaca its range reaches elevations where cloud forest develops. Most common in lowland forests including tropical rainforest and tropical dry forest but also found in oak forests. Fairly abundant in secondary vegetation. **Synonyms:** *Casearia subsessiliflora* Lundell, *Samyda sylvestris* (Sw.) Poir. **Common names:** *cerecito, chalcahuite, frijolillo, guayabillo, miel de loro, mierda de loro, palo blanco.*
Elevational range: 0–1,800 (2,300) m
Assessors: JAM, SVA
Refs: [173, 225, 263, 279]

Salix humboldtiana Willd.
LC
Mexico (NL, TAM, SLP, NAY, JAL, GTO, QRO, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, TAB, CHS, CAM), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Chile, Argentina, Paraguay, Uruguay, Jamaica, Puerto Rico
Small to medium-sized tree, 20–25 m tall and trunk up to 40 cm in diameter. This species occurs across a wide range of forest types and habitats, and is not restricted to cloud forest. It is most commonly found in riparian and swampy habitats. **Synonyms:** *Salix chilensis* Moldenke, *S. chilensis* Molina, *S. stipulacea* Mart. & Gal. **Common names:** *cueschicui, huéxotl, mixcaxtac, sauce, sauce blanco, sauce pinotea, sauz, tócoy, tok'oy*. Its wood is used for rural construction and its branches are used for making the frames of hand-woven baskets. This tree is also often planted as an ornamental, a shade plant and for making live fences.
Elevational range: 0–2,500 (3,000) m
Assessors: JAM, ILV
Refs: [49, 76, 225, 258, 279, 285

Salix paradoxa Kunth
LC
Mexico (COA, NL, DGO, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, GRO, OAX)
Deciduous shrub or small tree, up to 9 m tall and trunk up to 15 cm in diameter. Widespread in Mexico, mostly occurs in high elevation fir forest but also found in pine-oak forest and pine forest. Its occurrence in cloud forest is incidental and restricted to locations at very high elevations. Locally abundant and considered to be associated with disturbance. **Synonyms:** *Salix latifolia* Mart. & Gal., *S. oxylepis* C.K.Schneid., *S. pringlei* Rowlee, *S. rowleei* C.K.Schneid. **Common names:** *huejote, saucillo.*
Elevational range: 2,200–3,500 (4,000) m
Assessors: JAM, ILV
Refs: [2, 49, 70, 76, 96, 115, 258]

Salix taxifolia Kunth
LC
United States, Mexico (BCS, SON, CHI, COA, DGO, SLP, NAY, JAL, GTO, QRO, HGO, VER, COL, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Guatemala, Puerto Rico
Large shrub and occasionally a small tree, up 4 m tall. This species is associated with riparian habitats in different climatic and ecological regions, and thus it is not restricted to cloud forest. It also occurs in oak forest, pine forest and various tropical forest types. **Synonyms:** *Salix microphylla* Schltdl. & Cham., *S. taxifolia* Kunth var. *microphylla* (Schltdl. & Cham.) C.K.Schneid. **Common names:** *palo de agua, romerillo, sabino, sauce, sauz, tarais, taray, taray de río*.
Elevational range: 0–2,000 (2,500) m
Assessors: JAM, ILV
Refs: [49, 76, 225, 258, 279]

Xylosma flexuosa (Kunth) Hemsl.
LC
United States, Mexico (SON, NL, TAM, SIN, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela
Dioecious shrub or small tree, up to 12 m tall. Frequently found in cloud forest but not exclusive to this vegetation type. This species also occurs in several dry and moist lowland and montane forest communities, particularly in oak forest. **Synonyms:** *Hisingeria celastrina* Kunth, *Flacourtia flexuosa* Kunth, *Prockia obovata* Presl, *Xylosma anisophylla* Standl. **Common names:** *coronilla, espina de la corona, granadillo, granjeno, huichichiltémetl, huiscarol, palo de brujo, tejocotillo, tsak k'iith, wi'chunun, yisimbolón.*
Elevational range: (0) 500–2,200 (2,500) m
Assessors: JAM, SVA
Refs: [2, 35, 58, 76, 79, 115, 180, 225, 228, 229, 263, 278, 279, 295, 348, 351, 356, 429]

Sapindaceae

Acer grandidentatum Nutt.
LC
United States, Mexico (SON, CHI, COA, TAM)
Medium-sized tree, up to 20 m tall. A common element in the mountains of the western United States and northern Mexico where it grows preferentially in humid canyons, this species forms part of different types of forest and scrub. The only known locality where it grows in a cloud forest habitat is in the Sierra de San Carlos, Tamaulipas.
Elevational range: (200) 700–2,100 (2,800) m
Assessor: JAM
Refs: [31]

Allophylus psilospermus Radlk.
LC
Mexico (VER, OAX, CHS, YUC), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Lesser Antilles
A small or medium-sized tree, usually to 15 m tall, rarely more. Marginal to cloud forest, this species also occurs in humid and very humid habitats of forest formations at lower elevations. **Synonym:** *Allophylus panamensis* Radlk.
Elevational range: (0) 110–1,200 (2,000) m
Assessors: JCS, SAC, MGE
Refs: [279, 326]

Cupania dentata DC.
LC
Mexico (TAM, SLP, NAY, JAL, QRO, HGO, VER, COL, MIC, GRO, OAX, TAB, CHS, QTR), Guatemala, Belize, Honduras, Nicaragua, Costa Rica
A small or medium-sized tree, up to 30 m tall. Found in cloud forest, oak forest and pine-oak forest but mostly at lower elevations in tropical evergreen forest, tropical semi-evergreen forest and tropical dry forest. Closely related to *Cupania glabra* Sw., there are suggestions that they may be the same species. **Common names:** *agua al ojo, agua al ojo blanco, canilla de venado, cola de pava, cuasal-cuáhuit, cuasel, cuisal, cusitarillo, guacamayo, pata de perro, peine, rabo de cojolí, rabo de cojolite, tres lomos, ts'aw tzan*.
Elevational range: 20–1,770 m
Assessors: JCS, SAC, MGE
Refs: [42, 58, 277, 279, 326, 351]

Cupania glabra Sw.
LC
Mexico (TAM, SLP, NAY, JAL, VER, MIC, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Ecuador, Cuba, Jamaica, Dominican Republic, Lesser Antilles
A medium-sized to large tree, up to 35 m tall and trunk up to 25 cm in diameter. Found in cloud forest but also occurs in tropical evergreen forest, tropical semi-evergreen forest, tropical dry forest, and in their secondary communities. Closely related to *Cupania dentata* DC., it has been suggested that they are the same species. **Common names:** *chakchon, cola de pava, cola de pavo, huanchal, nogalito, palo de tejón, quebracha, quebracho, quiebracha, tachicón, tres lomos*. The wood is hard and compact and may be used for making poles and for flooring and other indoor construction.
Elevational range: 0–1,900 m
Assessors: JCS, SAC, MGE
Refs: [174, 241, 279, 326]

Matayba oppositifolia (A.Rich) Britton
LC
Mexico (SLP, COL, OAX, CHS, CAM, QTR), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Colombia, Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
A small or medium-sized tree, up to 23 m tall. Not restricted to cloud forest, this species also occurs in tropical evergreen forest and tropical semi-evergreen forest. **Synonyms:** *Cupania apetala* Macfad., *C. oppositifolia* A.Rich., *Matayba apetala* Radlk. **Common names:** *cascarillo, chicón blanco*.
Elevational range: 140–1,500 (2,000) m
Assessors: JCS, SAC, MGE
Refs: [279, 326, 431]

Ungnadia speciosa Endl.
LC
United States, Mexico (CHI, COA, NL, TAM)
Shrub or small tree, up to 5 m tall. This species occurs in cloud forest only in the Sierra de San Carlos in Tamaulipas. Elsewhere, it is found in drier forest types such as oak forest or pine forest, or in chaparral vegetation.
Elevational range: (450) 900–1,700 (1,900) m
Assessor: JAM
Ref: [73]

SCROPHULARIACEAE

Buddleja cordata (Standl.) E.M.Norman subsp. ***cordata***
LC
Mexico (CHI, TAM, SIN, DGO, ZAC, SLP, JAL, AGS, GTO, QRO, HGO, VER, MIC, MEX, DF, MOR, PUE, TLA, GRO, OAX, CHS), Guatemala
A medium-sized tree, up to 20 m tall. This species is common in secondary vegetation derived from cloud forest but is mostly associated with pine-oak forest. Usually found on roadsides. A highly polymorphic taxon that may hybridize with *Buddelja parvifolia* Kunth and *B. sessiliflora* Kunth. Widespread and abundant in Mexico, it is cultivated in Australia, Canada, United States, and Uruguay. Seed viability is low (germination rate less than 10%). **Synonyms:** *Buddleja acuminata* Kunth, *B. astralis* Standl. & Steyerm., *B. cordata* var. *teposan* Loes., *B. decurrens* Schltdl & Cham., *B. floccosa* Kunth, *B. floccosa* var. *crassifolia* Loes., *B. humboldtiana* Schult. & Schult. F., *B. macrophylla* Kunth, *B. ovalifolia* Kunth, *B. propinqua* Kunth, *B. spectabilis* Kunth & Bouché. **Common names:** *lengua de toro, marrubio, sallolisca, tepozán, tepozán blanco, tepozán grande, tepuza, tezompanctle, topozán, tzelepat, xompantle, zompantle*. Used as firewood and in hedges.
Elevational range: 1,000–3,200 m
Assessors: LLM, SAR, MGE
Refs: [3, 4, 58, 70, 71, 76, 96, 115, 124, 229, 270, 272, 302, 309, 398]

Buddleja nitida Benth.
LC
Mexico (CHS), Guatemala, Honduras, Costa Rica, Panama
Found in disturbed vegetation associated with cloud forests but also with pine-oak forest. In Mexico known from many specimens collected in Chiapas at the Central Plateau and the southern portion of the Sierra Madre de Chiapas. **Synonym:** *Buddleja alpina* Oerst.
Elevational range: 1,900–4,000 m
Assessors: LLM, SAR, MGE
Refs: [3, 135, 270, 398]

Buddleja parviflora Kunth
LC
Mexico (SON, SLP, NAY, JAL, HGO, VER, COL, MIC, MEX, DF, MOR, PUE, GRO, OAX)
A small tree, up to 9 m tall and trunk to 65 cm in diameter, more frequently a shrub. Marginal in cloud forest, this species is more typical of oak forest, pine forest and pine-oak forest. Found on slopes and in gorges, sometimes near streams, it is common in disturbed habitats, roadsides and thickets. It has been noted in Guatemala that this species is much like *Buddleja nitida* Benth., which has distinctly larger flowers. **Synonyms:** *Buddleja abbreviat*a Kunth, *B. brevifolia* Willd. ex Roem. & Schult., *B. gracilis* Kunth, *B. integrifolia* Willd. ex Schult. & Schult.f., *B. intermedia* Kunth, *B. lanceolata* Benth., *B. ligustrina* Loes., *B. microphylla* Kunth, *B. monticola* Loes., *B. obtusifolia* M.Martens & Galeotti, *B. parvifolia* Willd. ex Schult. & Schult.f., *B. venusta* Kunth. **Common names:** *ixe xon júba, sayolisco, tepozán, tepozán cimarrón, tepozán de cerro*,
Elevational range: 1,300–2,500 (3,800) m
Assessors: MGE, NRM
Refs: [76, 180, 272, 279, 419, 427]

SIPARUNACEAE

Siparuna thecaphora (Poepp. & Endl.) A.DC.
LC
Mexico (NAY, JAL, VER, COL, GRO, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil
Shrub or small tree, up to 2–6 m tall. Found in cloud forest and in humid tropical forests at lower elevations such as tropical rainforest and tropical semi-evergreen forest, also occurs in oak forest and pine-oak forest. **Synonyms:** *Siparuna andina* (Tul.) A.DC., *Siparuna nicaraguensis* Hemsl. **Common names:** *limoncillo, mano de tigre*. Used as firewood.
Elevational range: 150–1,800 (2,300) m
Assessor: FLH
Refs: [173, 207, 277, 315, 351]

SOLANACEAE

Cestrum aurantiacum Lindl.
LC
Mexico (JAL, HGO, MIC, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica
Shrub or small tree, up to 6 m tall. This species is abundant in cloud forest, pine-oak forest, tropical semi-evergreen forest and drier forest formations. **Synonyms:** *Cestrum aurantiacum* var. *chaculanum* (Loes.) Francey, *C. chaculanum* Loes., *C. paucinervium* Francey, *C. pedunculare* Pav. ex Dunal.
Elevational range: (600) 1,000–2,400 (2,700) m
Assessor: JAM
Refs: [29, 79]

Cestrum nocturnum L.
LC
Mexico (SLP, JAL, QRO, HGO, VER, MEX, MOR, PUE, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Peru, Brazil, Jamaica, Puerto Rico
Mostly shrub or small tree, up to 6 m tall. This is not a common cloud forest species as it normally grows in various forest types at lower elevations including tropical rainforest, tropical evergreen forest and tropical semi-evergreen forest. **Synonym:** *Cestrum hirtellum* Schltdl. **Common names:** *dama de noche, huele de noche*. A highly valued ornamental plant.
Elevational range: 0–1,400 (1,700) m
Assessor: JAM
Ref: [261]

Solanum aligerum Schltdl.
LC
Mexico (HGO, VER, MIC, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Costa Rica, Bolivia, Argentina
Shrub or small tree, up to 10 m tall. A typical cloud forest plant, this species may also be found in pine-oak forest. **Synonyms:** *Solanum grossum* C.V.Morton, *S. manicatum* Bitter, *S. paraneurotrichum* Bitter, *S. pterocladum* Van Heurck & Müll.Arg.
Elevational range: 1,650–2,300 m
Assessor: JAM
Refs: [4, 29, 76, 229, 262, 295]

Solanum aphyodendron S.Knapp
LC
Mexico (NAY, JAL, HGO, VER, MIC, MEX, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia
Shrub or tree, 2–7 (15) m tall. Found in cloud forest, pine-oak forest and oak forest. This species is related to *Solanum nudum* Dunal and *S. tuerckheimii* Greenm.
Elevational range: 1,150–2,600 m
Assessors: GIM, GCT
Refs: [76, 83, 262, 279, 351]

Solanum chrysotrichum Schltdl.
LC
Mexico (JAL, HGO, VER, MIC, MEX, PUE, GRO, OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia
Large shrub or small tree, up to 5 m tall. This species is a typical cloud forest component where it is very common, but it also occurs in pine-oak forest, oak forest, and occasionally in tropical dry forest. **Common names:** *pcolostle, shomapique*. Some medicinal uses have been reported.
Elevational range: (500) 1,000–2,600 m
Assessor: JAM
Refs: [76, 262]

Solanum lanceolatum Cav.
LC
Mexico (SLP, VER, MIC, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
Shrub or small tree, 0.8–5 m tall. This cloud forest species also occurs in pine-oak forest and oak forest. **Synonyms:** *Solanum densiflorum* M.Martens & Galeotti, *S. floccosum* M.Martens & Galeotti, *S. hartwegii* Benth., *S. mexicanum* Moc. & Sessé ex Dunal, *S. schiedeanum* Schltdl. **Common name:** *berenjena*.
Elevational range: 200–2,600 m
Assessors: GIM, GCT
Refs: [83, 262, 279]

Solanum nigricans M.Martens & Galeotti
LC
Mexico (SIN, JAL, VER, MIC, MEX, PUE, GRO, OAX, CHS), Guatemala, Honduras
Shrub or small tree, 1–6 (10) m tall. Found in cloud forest but this species also occurs in pine-oak forest, oak forest and second-growth vegetation. **Synonyms:** *Solanum brachystachys* Dunal, *S. vernicinitens* Bitter.
Elevational range: 1,400–3,100 m
Assessors: GIM, GCT
Refs: [76, 180, 262, 279]

Solanum nudum Dunal
LC
Mexico (TAM, SLP, NAY, HGO, VER, MIC, MOR, GRO, OAX, TAB, CHS, CAM, YUC, QTR), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Brazil, Haiti, Dominican Republic, Puerto Rico, Lesser Antilles
Shrub or small tree, 2–5 m tall. This species occurs in cloud forest, pine-oak forest, oak forest, tropical rainforest and second-growth vegetation. Related to *Solanum aphyodendron* S.Knapp. **Common names:** *huele de noche negro, san'tipuscat, nishtamal-cuauit*.
Elevational range: 0–2,900 m
Assessors: GIM, GCT
Refs: [76, 262]

Solanum pubigerum Dunal
LC
Mexico (TAM, ZAC, SLP, JAL, HGO, VER, MIC, MEX, DF, PUE, GRO, OAX, CHS), Guatemala, Costa Rica
Shrub or small tree, up to 5 m tall. Widespread in secondary vegetation associated with cloud forest, fir forest, oak forest, oak-pine forest or cypress scrub. **Synonyms:** *Solanum cervantesii* Lag., *S. dichotomum* M.Martens & Galeotti, *S. divaricatum* M.Martens & Galeotti, *S. martensii* Dunal, *S. modestum* Roem. & Schult. **Common names:** *capulincillo, hierba de perro.*
Elevational range: 2,000–3,000 m
Assessors: GIM, GCT
Refs: [180, 262, 279]

Solanum schlechtendalianum Walp.
LC
Mexico (TAM, SLP, QRO, HGO, VER, PUE, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana, Ecuador, Peru, Bolivia, Brazil, Argentina, Cuba
Shrub or small tree, up to 5 m tall. A very common plant in cloud forest, this species has a very broad ecological tolerance as shown by its widespread occurrence in pine forest, tropical semi-evergreen forest and tropical evergreen forest, particularly in riparian habitats. Also common in disturbed communities. **Synonyms:** *Capparis hypoleuca* C.Presl, *Solanum fragile* C.Wright ex Griseb., *S. geminoflorum* M.Martens & Galeotti, *S. geminifolium* Schltdl. & Cham., *S. gentlei* Lundell, *S. heterotrichum* Dunal, *S. oblitum* Dunal, *S. salviifolium* Lam. **Common name:** *chitius*.
Elevational range: (0) 450–1,300 (1,600) m
Assessor: JAM
Refs: [29, 58, 262, 295, 351]

Styracaceae

Styrax argenteus (C.Presl.) Miers
LC
Mexico (TAM, JAL, VER, MIC, MEX, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Bolivia, Peru
An evergreen large tree, up to 20–30 m tall. Widespread in cloud forest but also occurs in pine-oak forest and in other forest formations at lower elevations. Found on banks of waterways, moist ravines and in secondary vegetation. To obtain viable seeds the fruit should be exposed to lukewarm water or must be fermented in plastic bags for 4–7 days immediately after their removal from the tree. Seeds have an intermediate cold tolerance and can only be stored for a few weeks. **Synonyms:** *Strigilia argentea* (C.Presl.), *Styrax myristicifolius* Perkins, *S. polyanthus* Perkins. **Common names:** *capulín, changungo, chicamay, chucamay, chilacuate, estoraque, hoja de jabón, ruin*. Flowers are regarded as highly decorative and are sometimes sold in local markets. The bark is used to prepare a poison for fishing. Occasionally the trunk gum is used as incense.
Elevational range: (100) 700–2,000 (2,500) m
Assessors: NRM, MGE
Refs: [2, 4, 70, 71, 76, 79, 96, 116–118, 137, 180, 236, 238, 241, 277, 309, 312, 335, 348, 357, 428]

Styrax ramirezii Greenm.
LC
Mexico (SIN, DGO, NAY, JAL, COL, MIC, MEX, MOR, GRO, OAX, CHS)
A large evergreen tree, 20–27 m tall. A widespread Mexican species. Not restricted to cloud forests, it is a frequent element in secondary vegetation. Found on banks of waterways, in riparian habitats, humid ravines and deep riverbeds. It is recognized as a variable and complex species. **Synonyms:** *Styrax argenteus* C.Presl. var. *hintonii* (Bullock) Gonsoulin, *S. argenteus* var. *micranthus* (Perkins) D'Arcy, *S. argenteus* var. *ramirezii* (Greenm.) Gonsoulin, *S. cyathocalyx* Perkins, *S. hintonii* Bullock, *S. micranthus* Perkins, *S. orizabensis* Perkins, *S. ramirezii* var. *orizabensis* (Perkins) Perkins. **Common name:** *chilacuate*.
Elevational range: (1,300) 1,500–2,400 (3,100) m
Assessors: NRM, MGE
Refs: [96, 115–118, 166, 213, 356, 429]

Styrax warscewiczii Perkins
LC
Mexico (OAX, CHS), Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama
A large, evergreen tree, 20–30 m tall and trunk up to 25 cm in diameter. A widespread species, not restricted to cloud forest as it is also present in montane rainforest at lower elevations and pine-oak forest. Common in secondary vegetation. Specimens listed in *TROPICOS* from San Luis Potosí and Guerrero are probably misidentifications. To obtain viable seeds the fruit should be exposed to lukewarm water or fermented in plastic bags for 4–7 days immediately after their removal from the tree. Seeds are recalcitrant and seedlings can be readily obtained from them. **Synonym:** *Styrax polyneurus* Perkins. **Common name:** *jaas*.
Elevational range: 1,100–2,700 (3,200) m
Assessors: NRM, MGE
Refs: [116–118, 241, 309]

Thymelaeaceae

Daphnopsis americana (Mill.) J.R.Johnst.
LC
Mexico (VER, MEX, MOR, GRO, OAX, CHS, QTR), Costa Rica, Panama, Colombia, Venezuela, Ecuador, Jamaica, Puerto Rico, Lesser Antilles
Shrub or small tree, 3–8 (12) m tall. A marginal cloud forest taxon, this species is rare in this vegetation type as it mostly occurs in tropical dry forest, tropical semi-evergreen forest, and oak forest of the lowlands.
Elevational range: 10–1,300 m
Assessor: FLH
Refs: [126, 264, 330]

URTICACEAE

Boehmeria caudata Sw.
LC
Mexico (JAL, VER, GRO, OAX, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Brazil, Argentina, Paraguay, Jamaica
Shrub or small tree, 2–9 m tall. This species occurs in cloud forest, tropical dry forest, tropical semi-evergreen forest, tropical rainforest, frequently in riparian habitats.
Elevational range: 30–2,700 m
Assessors: GIM, GCT
Refs: [32, 96, 279]

Boehmeria ulmifolia Wedd.
LC
Mexico (JAL, HGO, VER, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Venezuela, Ecuador, Bolivia, Brazil
Shrub or small tree, up to 7 m tall. A cloud forest species but also present in tropical dry forest, tropical semi-evergreen forest, tropical rainforest and secondary vegetation.
Elevational range: 180–2,800 m
Assessors: GIM, GCT
Refs: [32, 58, 279]

Cecropia obtusifolia Bertol.
LC
Mexico (TAM, SIN, SLP, NAY, JAL, HGO, VER, COL, MIC, MEX, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador
Medium-sized to large tree, 10–35 m tall. Pioneer dioecious species found in gaps and edges of the cloud forest but most commonly of tropical lowland communities. **Synonyms:** *C. mexicana* Hemsl., *C. panamensis* Hemsl. **Common names:** *chancarro, guarina, guarumo, hormiguillo, huagadeug, huitapil, huatipil, jarilla, juaquequistli, kooché, palo de violín, sarumo, shushanguji, tequescuahuitl, trompeta, trompetillo, tzulte, yaba, yabioo, yaga-gacho*. Leaves are used to treat diabetes. Fruit is edible and trunk is used as fuelwood and for rural construction.
Elevational range: 0–1,650 m
Assessors: GIM, GCT
Refs: [20, 60, 76, 172, 207, 279, 285, 351]

Myriocarpa longipes Liebm.
LC
Mexico (TAM, SLP, QRO, VER, MIC, PUE, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Argentina
Shrub or tree, 2–10 m tall. Abundant, mainly in secondary vegetation but this species is rare in cloud forest. **Synonyms:** *Myriocarpa inaequilateris* Liebm., *M. longipes* var. *yzabalensis* Donn.Sm., *M. magnifica* Rusby, *M. malacophylla* B.L.Rob. & Bartlett, *M. yzabalensis* (Donn.Sm.) Killip. **Common names:** *carne de caballo, chaya, chichicastle de montaña, chiflaculo, cholagoque indio, nectanté, palo de fideo, palo de pólvora, puchalante, púxlatem, xtulaca*. Used as a remedy against malaria.
Elevational range: 0–1,950 m
Assessors: GIM, GCT
Refs: [32, 76, 115, 174, 244, 279, 351]

Urera caracasana (Jacq.) Griseb.
LC
United States, Mexico (TAM, SLP, NAY, JAL, HGO, VER, COL, MIC, MEX, MOR, GRO, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Argentina
Shrub or tree, 3–10 m tall. This species occurs in cloud forest, pine forest, and pine-oak forest, frequently in riparian habitats. **Synonyms:** *Urtica caracasana* Jacq., *Urera alceifolia* (Poir.) Gaudich. **Common names:** *a-tzitzicaztli, carne de caballo, chichicastle, chichicazlillo, chilix, hueva de cangrejo, laal, mal hombre, mala mujer, quemador, ortiga, ortiga de caballo, tachinole, tumalí, tzitzicöstli, xiopatli, yet-le, zulsimtezla*.
Elevational range: 0–2,300 m
Assessors: GIM, GCT
Refs: [32, 137, 174, 207, 244, 279, 386]

Urera glabriuscula V.W.Steinm.
LC
Mexico (VER, OAX, TAB, CHS), Guatemala, El Salvador
Shrub or tree, 2–12 m tall. Found in cloud forest, oak forest, tropical rainforest, tropical semi-evergreen forest and tropical dry forest, frequently in riparian habitats. **Synonyms:** *Urera killipiana* Standl. & Steyerm., *Urtica elata* Sw. **Common names:** *berenjenilla, coyalillo, hueva de cangrejo, huevo de peje, palo de agua, panza de toro, palo verde, yashanal zulsinte*.
Elevational range: 100–2,800 m
Assessors: GIM, GCT
Refs: [32, 174, 244, 279, 386]

Urera rzedowskii V.W.Steinm.
LC
Mexico (SLP, QRO, HGO, VER, PUE, OAX, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia
Shrub or small tree, 2–13 m tall. Found in cloud forest, tropical rainforest and semi-evergreen tropical rainforest, frequently in riparian habitats. Monro and Rodríguez [244] listed this species as a synonym of *Urera simplex* Wedd. **Common names:** *chichicastle, chichicastillo, hueva de cangrejo, kokotzte, mal hombre, pica pica, pochalanti*.
Elevational range: 50–1,650 m
Assessors: GIM, GCT
Refs: [174, 244, 386]

Urera simplex Wedd.
LC
Mexico (VER, TAB, CHS), Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Brazil
Shrub or small tree, 2–10 m tall. Found in disturbed and undisturbed cloud forest, tropical rainforest and tropical semi-evergreen forest. **Synonyms:** *Urera eggersii* Hieron., *U. tuerckheimii* Donn.Sm. **Common names:** *bilsimtezla, chenek'mut, huevo de cangrejo, sakil zulsimtez laa, tzotzniz zul simtez, zulsimtezl.*
Elevational range: 0–2,500 m
Assessors: GIM, GCT
Refs: [32, 244]

Urera verrucosa (Liebm.) V.W. Steinm.
LC
Mexico (JAL, QRO, HGO, VER, MIC, MEX, MOR, PUE, GRO, OAX, CHS), Costa Rica
This species grows primarily in canyons and ravines with cloud forest, it rarely extends into humid pine forest. **Synonym:** *Urtica verrucosa* Liebm. **Common names:** *chichicastle, mala mujer.*
Elevational range: 1,200–2,800 m
Assessor: JAM
Refs: [79, 386]

VERBENACEAE

Citharexylum affine D.Don
LC
Mexico (SIN, NAY, JAL, AGS, COL, MIC, MEX, OAX, CHS), Guatemala, Belize, Nicaragua
A rare medium-sized tree, up to 10 m tall, or large tree, up to 30 m tall, but frequently a shrub. This species is found in cloud forest but also occurs in humid oak forest, occasionally in coffee plantations. A species distributed mostly on the Pacific watershed of Mexico; in its broadest sense (sensu lato), which includes *Citharexylum pterocladum* Donn.Sm. and *C. jurgensenii* Briq., its distribution extends into Veracruz, Puebla, Guatemala, and Belize. A taxon in need of more detailed study. **Common names:** *cacachila, chacalpezie, chachalaca, chachalacámetl, coral, jalcate, salacate, tres lomos*. The fruit is edible and the leaves are used in traditional medicine.
Elevational range: 2050–2,800 m
Assessors: MGE, NRM
Refs: [76, 256, 279, 342]

Citharexylum caudatum L.
LC
Mexico (VER, OAX, TAB, CHS), Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Cuba, Puerto Rico
A medium-sized tree, up to 20 m tall and trunk up to 13 cm in diameter. Not restricted to cloud forest and more typical in lowland forests. Found in wet thickets and swampy areas. A very common species in secondary vegetation associated with pine-oak forest and tropical rainforest. Considered as an alien-invasive species in Hawaii by the Hawaiian Ecosystems at Risk project. **Synonyms:** *Citharexylum caudatum* fo. *angustifolium* Moldenke, *C. erectum* Sw., *C. lucidum* Schltdl & Cham., *C. mucronatum* E.Fourn. ex Moldenke. *Citharexylum macradenium* Greenm. is no longer considered as a synonym as it is restricted to areas at 1,300 m or higher in Costa Rica and Panama.
Elevational range: 0–1,900 m
Assessors: LSV, RPG, MGE
Refs: [228, 256, 279, 296, 342]

Citharexylum donnell-smithii Greenm.
LC
Mexico (OAX, CHS), Guatemala, Honduras, El Salvador, Costa Rica, Panama
A small or medium-sized tree, 15–20 m tall and trunk up to 40 cm in diameter. A common species found in cloud forests of southern Mexico. Occurs in humid pine-oak forest, sometimes in oak forest and in pine forest, often in secondary stands and ruderal habitats and sometimes planted as an ornamental in gardens. Seedlings can be produced on damp beds (germination is 20–80% depending on scarification method). The seeds are not viable after one year of storage. **Synonyms:** *Citharexylum ghiesbreghtii* Moldenke, *C. recurvatum* Greenm.
Elevational range: (700) 1,000–2,400 (3,000) m
Assessors: LSV, RPG, MGE
Refs: [129, 279, 309]

Citharexylum hirtellum Standl.
LC
Mexico (JAL, TAB, CHS, CAM, QTR), Guatemala, Belize, Honduras, Panama
A small tree or shrub. Marginally found in cloud forest as it is more common in forests at lower elevations.
Elevational range: 0–1,500 m
Assessors: LSV, RPG, MGE
Refs: [129, 279]

Citharexylum mocinnoi D.Don
LC
Mexico (NAY, VER, MEX, OAX, CHS), Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama
A small or medium-sized tree, 18–20 m tall and trunk up to 60 cm in diameter. Not restricted to cloud forests, this species is also present in pine-oak forest and tropical rainforest. A common species in disturbed cloud forest. Seedlings can be produced on damp beds covered by litter (germination up to 80%). Seeds may remain viable in storage for up to one year. **Synonyms:** *Citharexylum lankesteri* Moldenke, *C. rugendasii* Cham., *C. rugendasii* var. *endlichii* Loes. **Common names:** *cezintle, perla*.
Elevational range: (1,100) 1,400–2,300 (2,800) m
Assessors: LSV, RPG, MGE
Refs: [129, 256, 279, 296, 309, 348, 349, 351, 363]

Cornutia grandifolia (Schltdl. & Cham.) Schauer
LC
Mexico (VER, PUE), Guatemala, Belize, Costa Rica, Panama
An erect shrub, sometimes arborescent or a treelet, up to 6 m tall. Found in many low elevation vegetation types including cloud forest edges, roadsides, and other disturbed habitats. Cultivated in the Antilles. Some authors consider this species a synonym of *Cornutia pyramidata* L. **Synonyms:** *Cornutia grandiflora* Steud., *C. grandifolia* var. *purpusii* Moldenke, *C. grandifolia* var. *quadrangularis* Moldenke, *C. grandifolia* var. *storkii* Moldenke, *C. pyramidata* var. *dentata* Kuntze, *Hosta grandiflora* A. Dietr., *H. grandifolia* Schltdl & Cham.
Elevational range: 0–1,750 m
Assessors: MGE, NRM
Refs: [209, 256, 279]

Lippia myriocephala Schltdl. & Cham.
LC
Mexico (TAM, SLP, NAY, JAL, GTO, QRO, HGO, VER, MIC, PUE, OAX, TAB, CHS, YUC), Guatemala, Belize, El Salvador, Honduras, Costa Rica
Shrub or small tree, up to 12 m tall. Frequently found in secondary vegetation derived from cloud forest, oak forest and pine-oak forest but mostly occurs in tropical vegetation at lower elevations. Found on rocky slopes, roadsides and in agricultural landscapes. Although abundant, it is a variable entity in need of detailed studies over its entire range. The populations in Jalisco and Nayarit are not clearly differentiated from *Lippia umbellata* Cav. **Synonyms:** *Lippia costaricensis* Moldenke, *L. hypoleia* Briq., *L. myriocephala* var. *hypoleia* (Briq.) Moldenke, *L. myriocephala* var. *integrifolia* Loes. *L. myriocephaloides* Briq., *L. salamensis* Loes. **Common names:** *anamte, asuiche, calpanchi blanco, cola de pato, palo blanco, palo de gusano, palo de marca, palo gusano, palo tierra, polverillo*. The leaves are aromatic and the tree is used in traditional medicine. Its durable wood is used for light construction.
Elevational range: (150) 600–2,300 (2,600) m
Assessor: MGE
Refs: [76, 209, 279, 342, 445]

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ANNEX 1
IUCN RED LIST CATEGORIES AND CRITERIA

EXTINCT (EX)
A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct 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.

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 naturalized 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 the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.

ENDANGERED (EN)
A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.

VULNERABLE (VU)
A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable (see Section V), and it is therefore considered to be facing a high risk of extinction in the wild.

NEAR THREATENED (NT)
A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

LEAST CONCERN (LC)
A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.

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 are lacking. Data Deficient is therefore not a category of threat. 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 a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and 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 evaluated against the criteria.

THE CRITERIA FOR CRITICALLY ENDANGERED, ENDANGERED AND VULNERABLE

CRITICALLY ENDANGERED (CR)
A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild:

A. Reduction in population size based on any of the following:
   1. An observed, estimated, inferred or suspected population size reduction of ≥ 90% over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following:
      (a) direct observation
      (b) an index of abundance appropriate to 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, hybridization, pathogens, pollutants, competitors or parasites.

   2 An observed, estimated, inferred or suspected population size reduction of ≥ 80% over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may

not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

3. A population size reduction of ≥ 80%, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.

4. An observed, estimated, inferred, projected or suspected population size reduction of ≥ 80% over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, and where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

B. Geographic range in the form of either B1 (extent of occurrence) OR B2 (area of occupancy) OR both:
   1. Extent of occurrence estimated to be less than 100 km^2, and estimates indicating at least two of a-c:
      a. Severely fragmented or known to exist at only a single location.
      b. Continuing decline, observed, inferred or projected, in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) area, extent and/or quality of habitat
         (iv) number of locations or subpopulations
         (v) number of mature individuals.
      c. Extreme fluctuations in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) number of locations or subpopulations
         (iv) number of mature individuals.

   2. Area of occupancy estimated to be less than 10 km^2, and estimates indicating at least two of a-c:
      a. Severely fragmented or known to exist at only a single location.
      b. Continuing decline, observed, inferred or projected, in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) area, extent and/or quality of habitat
         (iv) number of locations or subpopulations
         (v) number of mature individuals.
      c. Extreme fluctuations in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) number of locations or subpopulations
         (iv) number of mature individuals.

C. Population size estimated to number fewer than 250 mature individuals and either:
   1. An estimated continuing decline of at least 25% within three years or one generation, whichever is longer, (up to a maximum of 100 years in the future) OR

   2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b):
      (a) Population structure in the form of one of the following:
         (i) no subpopulation estimated to contain more than 50 mature individuals, OR
         (ii) at least 90% of mature individuals in one subpopulation.
      (b) Extreme fluctuations in number of mature individuals.

D. Population size estimated to number fewer than 50 mature individuals.

E. Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or three generations, whichever is the longer (up to a maximum of 100 years).

ENDANGERED (EN)

A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild:

A. Reduction in population size based on any of the following:
   1. An observed, estimated, inferred or suspected population size reduction of ≥ 70% over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following:
      (a) direct observation
      (b) an index of abundance appropriate to 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, hybridization, pathogens, pollutants, competitors or parasites.

2. An observed, estimated, inferred or suspected population size reduction of ≥ 50% over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

3. A population size reduction of ≥ 50%, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.

4. An observed, estimated, inferred, projected or suspected population size reduction of ≥ 50% over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

B. Geographic range in the form of either B1 (extent of occurrence) OR B2 (area of occupancy) OR both:
   1. Extent of occurrence estimated to be less than 5000 km^2, and estimates indicating at least two of a-c:
      a. Severely fragmented or known to exist at no more than five locations.
      b. Continuing decline, observed, inferred or projected, in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) area, extent and/or quality of habitat
         (iv) number of locations or subpopulations
         (v) number of mature individuals.
      c. Extreme fluctuations in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) number of locations or subpopulations
         (iv) number of mature individuals.

   2. Area of occupancy estimated to be less than 500 km^2, and estimates indicating at least two of a-c:

      a. Severely fragmented or known to exist at no more than five locations.
      b. Continuing decline, observed, inferred or projected, in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) area, extent and/or quality of habitat
         (iv) number of locations or subpopulations
         (v) number of mature individuals.
      c. Extreme fluctuations in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) number of locations or subpopulations
         (iv) number of mature individuals.

C. Population size estimated to number fewer than 2500 mature individuals and either:
   1. An estimated continuing decline of at least 20% within five years or two generations, whichever is longer, (up to a maximum of 100 years in the future) OR

   2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b):
      (a) Population structure in the form of one of the following:
         (i) no subpopulation estimated to contain more than 250 mature individuals, OR
         (ii) at least 95% of mature individuals in one subpopulation.
      (b) Extreme fluctuations in number of mature individuals.

D. Population size estimated to number fewer than 250 mature individuals.

E. Quantitative analysis showing the probability of extinction in the wild is at least 20% within 20 years or five generations, whichever is the longer (up to a maximum of 100 years).

VULNERABLE (VU)

A taxon is Vulnerable when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild:

A. Reduction in population size based on any of the following:
   1. An observed, estimated, inferred or suspected population size reduction of ≥ 50% over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are: clearly reversible AND understood AND ceased, based on (and specifying) any of the following:
      (a) direct observation
      (b) an index of abundance appropriate to 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, hybridization, pathogens, pollutants, competitors or parasites.

2. An observed, estimated, inferred or suspected population size reduction of ≥ 30% over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

3. A population size reduction of ≥ 30%, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.

4. An observed, estimated, inferred, projected or suspected population size reduction of ≥ 30% over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

B. Geographic range in the form of either B1 (extent of occurrence) OR B2 (area of occupancy) OR both:
   1. Extent of occurrence estimated to be less than 20,000 km^2, and estimates indicating at least two of a-c:
      a. Severely fragmented or known to exist at no more than 10 locations.
      b. Continuing decline, observed, inferred or projected, in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) area, extent and/or quality of habitat
         (iv) number of locations or subpopulations
         (v) number of mature individuals.
      c. Extreme fluctuations in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) number of locations or subpopulations
         (iv) number of mature individuals.

   2. Area of occupancy estimated to be less than 2000 km^2, and estimates indicating at least two of a-c:
      a. Severely fragmented or known to exist at no more than 10 locations.
      b. Continuing decline, observed, inferred or projected, in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) area, extent and/or quality of habitat
         (iv) number of locations or subpopulations
         (v) number of mature individuals.
      c. Extreme fluctuations in any of the following:
         (i) extent of occurrence
         (ii) area of occupancy
         (iii) number of locations or subpopulations
         (iv) number of mature individuals.

C. Population size estimated to number fewer than 10,000 mature individuals and either:
   1. An estimated continuing decline of at least 10% within 10 years or three generations, whichever is longer, (up to a maximum of 100 years in the future) OR

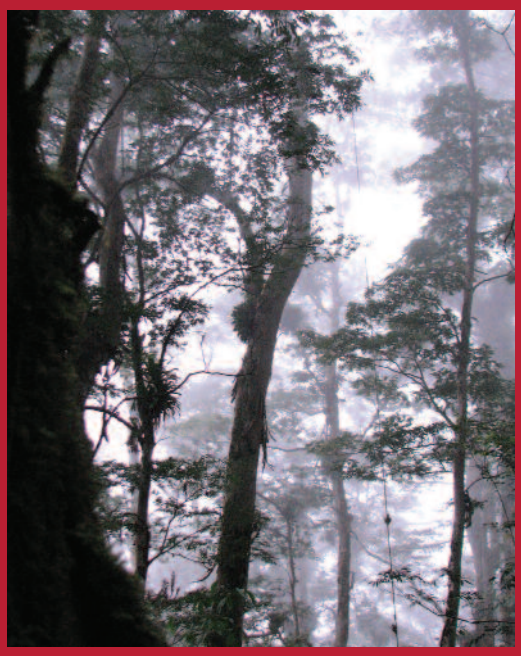
   2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b):
      (a) Population structure in the form of one of the following:
         (i) no subpopulation estimated to contain more than 1000 mature individuals, OR
         (ii) all mature individuals are in one subpopulation.
      (b) Extreme fluctuations in number of mature individuals.

D. Population very small or restricted in the form of either of the following:
   1. Population size estimated to number fewer than 1000 mature individuals.

   2. Population with a very restricted area of occupancy (typically less than 20 km^2) or number of locations (typically five or fewer) such that it is prone to the effects of human activities or stochastic events within a very short time period in an uncertain future, and is thus capable of becoming Critically Endangered or even Extinct in a very short time period.

E. Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.

Source: IUCN (2001)



The Red List of Mexican Cloud Forest Trees

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