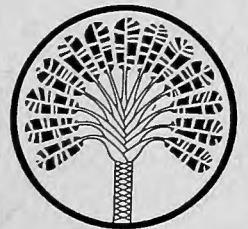


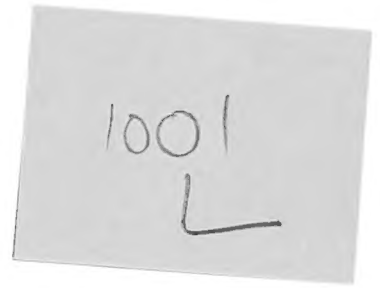
**RARE AND THREATENED PLANTS OF CUBA:
EX SITU CONSERVATION IN BOTANIC GARDENS**



IUCN Botanic Gardens Conservation Secretariat



Cover illustration:
Microcycas ottonis Miq. (Zamiaceae)
in **Verh. Kl. I. Nederl. Inst. Wet.**
Amsterdam, ser. III. iv. t.2 (1851).



**RARE AND THREATENED PLANTS OF CUBA:
EX SITU CONSERVATION IN BOTANIC GARDENS**

This report contains a list of the rare and threatened plants of Cuba, indicating their IUCN Conservation (Red Data Book) categories and including a list, as known, of the occurrence of each in botanic gardens collections. Further copies are available for botanic gardens and can be obtained by writing to:
The IUCN Botanic Gardens Conservation Secretariat,
53 the Green, Kew, Richmond, Surrey, TW9 3AA, U.K.

The report has been compiled

by the

IUCN Botanic Gardens Conservation Secretariat

in co-operation with

The Threatened Plants Unit

of

The World Conservation Monitoring Centre

JANUARY 1989

Introduction

We are pleased to produce a report on the *ex situ* conservation of the rare and threatened Cuban flora in Botanic Gardens, together with a recently updated list of endangered taxa. A previous list was circulated to members of the IUCN Botanic Gardens Conservation Co-ordinating Body in August 1985 and much of the knowledge of Cuban species in botanic gardens cultivation has been gained from responses provided to that survey. We are most grateful to all the Garden Directors who responded to that questionnaire. To date, a list of rare and threatened Cuban plants has been distributed by IUCN to about 300 botanic gardens worldwide. Nevertheless if readers of this report know of important collections of Cuban plants in cultivation which have not been included in the results presented here we would be very pleased to have this information.

During 1988 Dra Angela Leiva and the staff of the Jardín Botánico Nacional, Cuba also supplied a list of the native plants contained in their collection, as well as providing many corrections and additions to the threatened plants list for the country. For this assistance we are very grateful. Thus, this list includes a complete compilation of the rare and threatened endemics and their conservation status as are currently known. The threatened plants list has been compiled from the database of the Threatened Plants Unit of the World Conservation Monitoring Centre and the records of species in cultivation from the associated database of the IUCN Botanic Gardens Conservation Secretariat.

We have presented the full Cuban threatened plants list in this report, in the form of a questionnaire, so that botanic gardens which hold stocks of Cuban plants will be enabled in future to copy the list for annotation to be returned to the Secretariat so that we can constantly update and add to the information we hold on the plants from this archipelago.

As Dra Leiva outlines in her articles included in this publication, the native flora of Cuba is very rich. The list we present here contains over 800 taxa, of which, to date, only 55 are known to be in cultivation in the Gardens we have surveyed. Of those, 44 are cultivated at the Jardín Botánico Nacional, Cuba and 33 in only one botanic garden. It must obviously therefore become a priority in the coming years for botanic gardens worldwide to assist their efforts and cultivate more of these important but declining endemics and ensure their adequate distribution to other institutions. The Jardín Botánico Nacional, Cuba is generously offering to distribute its duplicate material as seeds to other botanic gardens and Garden Directors are invited to write to Dra Leiva if they are keen to cultivate any of the species marked + in the list. As well as that, a further list of species available for exchange from Cuba is given in **Botanic Gardens Conservation News**, 1(3), page 58. It includes several species of palm offered as wild collected seed.

Acknowledgements

We are very grateful to Dra Angela Leiva for her assistance and advice during the preparation of this report, without which it could not have been produced. We also acknowledge with thanks the assistance given by Christine Leon and Steve Davis of the Threatened Plants Unit of the World Conservation Monitoring Centre for their valuable collaboration.

This report has been compiled and edited by E.A. Leadlay and P.S. Wyse Jackson for the IUCN Botanic Gardens Conservation Secretariat.

January 1989

Background

The island of Cuba covers an area of 114,524 sq. km and has a population of about 10 million. Its vegetation is semi-desert of thornbush and savannah vegetation at lower altitudes with siliceous savannah in the west. In the mountains, evergreen and tropical cloud and rain forest occur. Pine forests occur at the eastern and western parts of the island. The mountains reach their highest altitude of about 2,000 m in the east and broadly occur in three separate regions in the east, west and centre, separated by areas of lowland. Species-rich pine forests occur on serpentine soils, with submontane rain forest along the north-east and semi-dry mountain forest along the south-east coast, and mangrove and tropical salt marsh along the west coast (Davis *et al.*, 1986).

Further details on the Checklists and Floras published and threatened plants of Cuba are given in **Plants in Danger: What do we know?**, Davis, S. *et al.* 1986, published by IUCN, Gland, Switzerland and Cambridge, U.K. and so will not be repeated here.

The IUCN Plant Red Data Book (Lucas, G. and Synge, H., 1978) contains information on two Cuban species, *Cereus robinii* (Lemaire) L. Benson (Cactaceae) and *Microcycas calocoma* (Miq.) A.DC. (Zamiaceae) the latter of which is endemic to the island.

Cuba has several botanic gardens which are active in plant conservation. The largest is the Jardín Botánico Nacional, described in detail in Dra Leiva's article reprinted here from **Botanic Gardens Conservation News** 1(3). Other botanic gardens are:

Jardín Botánico de Cienfuegos, Apartado 414, Cienfuegos

This garden was established in 1902 and is 90 ha in area. It is government supported and the collections are especially rich in specimens of woody Leguminosae, Palmae and Moraceae.

Jardín Botánico de Copeinicií, Guisa, Bayamo, Granma Province

This garden was established in 1983 and is about 100 ha in area. Of this about 30% is native seasonal evergreen forest. An adjacent reserve of 150 ha of similar vegetation has recently been brought under the control of the garden. The garden is supported by the Municipal Government of Guisa, with the scientific collaboration of the Jardín Botánico Nacional.

Orquídeario de Soroa, Universidad de Pinar del Río, Candelaria, Pinar del Río

This garden is about 3 ha in extent and specializes in the cultivation of orchids, both native and otherwise. Its facilities include a specialized library, several shade houses and a tissue culture unit. Scientific collaboration is carried out with the Jena Botanic Gardens, G.D.R. and the Jardín Botánico Nacional.

We are also told that new botanic gardens are planned at Santiago de Cuba, Holguín, Las Tunas and Sancti Spiritus in these province capitals, with the collaboration and advice of the Jardín Botánico Nacional and the Institute of Ecology and Systematics of the Cuban Academy of Sciences.

Plant Conservation in Cuba

The floristic richness and high endemism of the Cuban archipelago is well known. According to recent reports (Borhidi and Muñiz, 1983) the Cuban vascular flora embraces 6,700 species (500 Pteridophytes and 6,200 Phanerophytes of which about 20 are Gymnosperms and the rest Angiosperms), grouped in 1,300 genera and 181 families. A figure of 51% endemism has been reported thus making about 3,100 endemic species. Moreover, Cuban natural ecosystems have been strongly altered during the last 200 years; about 16% of its phanerogamic flora is threatened and probably 2% is already extinct.

Before the first arrival of aboriginal people (about 4,000 years ago) primary forest ecosystems covered more than 95% of the total area. High tropical forests probably accounted for 70-80%, and the rest was occupied by low altitude broad-leaved forests, pine forests and other vegetation types.

In the sixteenth century, the colonization of the country by Spaniards began. During the seventeenth and eighteenth centuries, economical activity was negligible. It has been estimated that in 1812, 90% of the territory was still covered by original forest. In 1900 this area had diminished to 54%, mainly due to intensive cattle-raising, and sugar cane plantation. In 1926 only 23% of the surface was still covered by forests. In 1959, 14% of natural forest remained, more or less undisturbed.

Among neotropical countries, Cuba occupies fourth place amongst those which have had drastic and intensive destruction of natural environment; in this ranking Cuba is preceded by Barbados, Haiti and Puerto Rico. About 90,000 square kms of forests were destroyed in the course of five centuries. The early introduction of some invasive species such as *Dichrostachys cinerea* and *Syzygium jambos*, had displaced native species in both low and high altitude ecosystems (Del Risco, 1982). As is well known, island ecosystems are extremely vulnerable to external effects. In the case of Cuba, this vulnerability is much more pronounced because, among other reasons, its endemic flora is mostly adapted to extreme, oligotrophic biotopes and hence the competitiveness of native organisms is diminished (Borhidi, 1985).

In the last decade, between 8 and 9% of the whole surface of the country has been proposed for different degrees of protection. But too much still remains to be done for the system to function efficiently.

In 1977 the National Committee for Protection of Environment and Conservation of Natural Resources (COMARNA) was created. In every province and municipality there is a committee attached to the local government with executive powers to decide on problems concerning protection of environment and conservation. As well as this, a broadly based public educational campaign is being developed. Since 1980, a new Law (No. 33) has been established for the protection of the environment and rational use of natural resources. Several scientific institutions carry out important research projects on the conservation of threatened ecosystems and/or species.

Four Biosphere Reserves have been declared by UNESCO in Cuba covering very representative areas of high plant diversity and endemism.

Nevertheless, the critical amount of destruction caused to Cuban natural ecosystems in the last 200 years, together with the real demographic and economic growth, and to some extent, by the virtual absence of conservationist traditions, impose on Cuban scientists and government authorities a great responsibility for the present and future preservation of Cuba's natural heritage. We are optimists and all know and remember that the quality of life of future generations strongly depends on nature conservation, and it must be preserved and improved.

Dra Angela Leiva
Director
Jardín Botánico Nacional, Cuba

Literature

Borhidi, A. and O. Muñiz (1983). **Catálogo de Plantas Cubanas amenzadas o extinguidas.** Editorial Academia, La Habana.

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The National Botanic Garden of Cuba

*Dr Angela Leiva,
Director,
Jardín Botánico Nacional,
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Boyeros, Ciudad Habana, Cuba*

In 1967, the Cuban Government suggested to the University of Havana the development of a modern botanic garden of national scope, recognizing the rôle of such institutions as important tools for education, scientific research and recreation. A year later, the general plan for the National Botanic Garden was produced. A piece of good land, 600 ha. in size and covered with pasture and secondary vegetation was earmarked to develop the ambitious project. It is located 25 km. south of the centre of the capital, Sixteen years later, on 24th March 1984, the garden was opened to the public.

In Figure 1, the general layout of the Garden is shown. Emphasis has been placed upon world tropical flora, but in particular, native flora and vegetation. Special attention is given to the development of a native vascular plant collection, mainly arranged according to a phytogeographical approach. This collection covers an area of 120 ha. It plays an important rôle in research on our national flora, in *ex situ* conservation of endangered species and in general education.

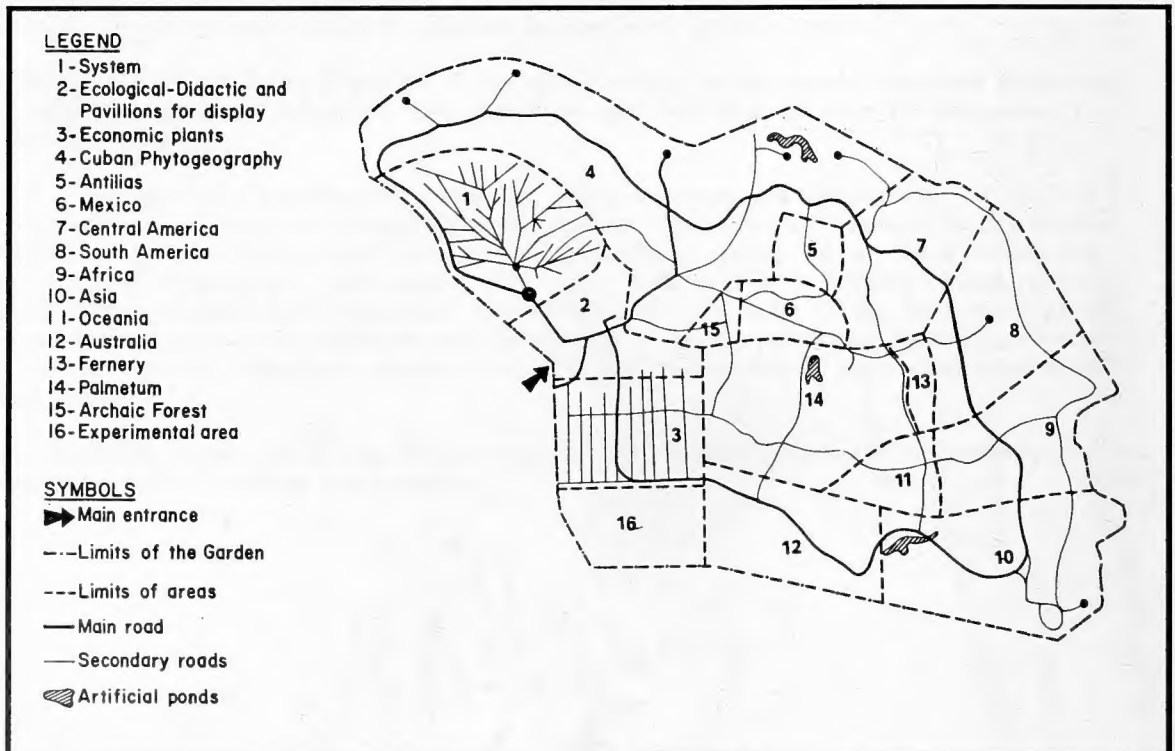


Figure 1 : General organization of the National Botanic Garden



Figure 2 : A recent view of the Serpentine vegetation area

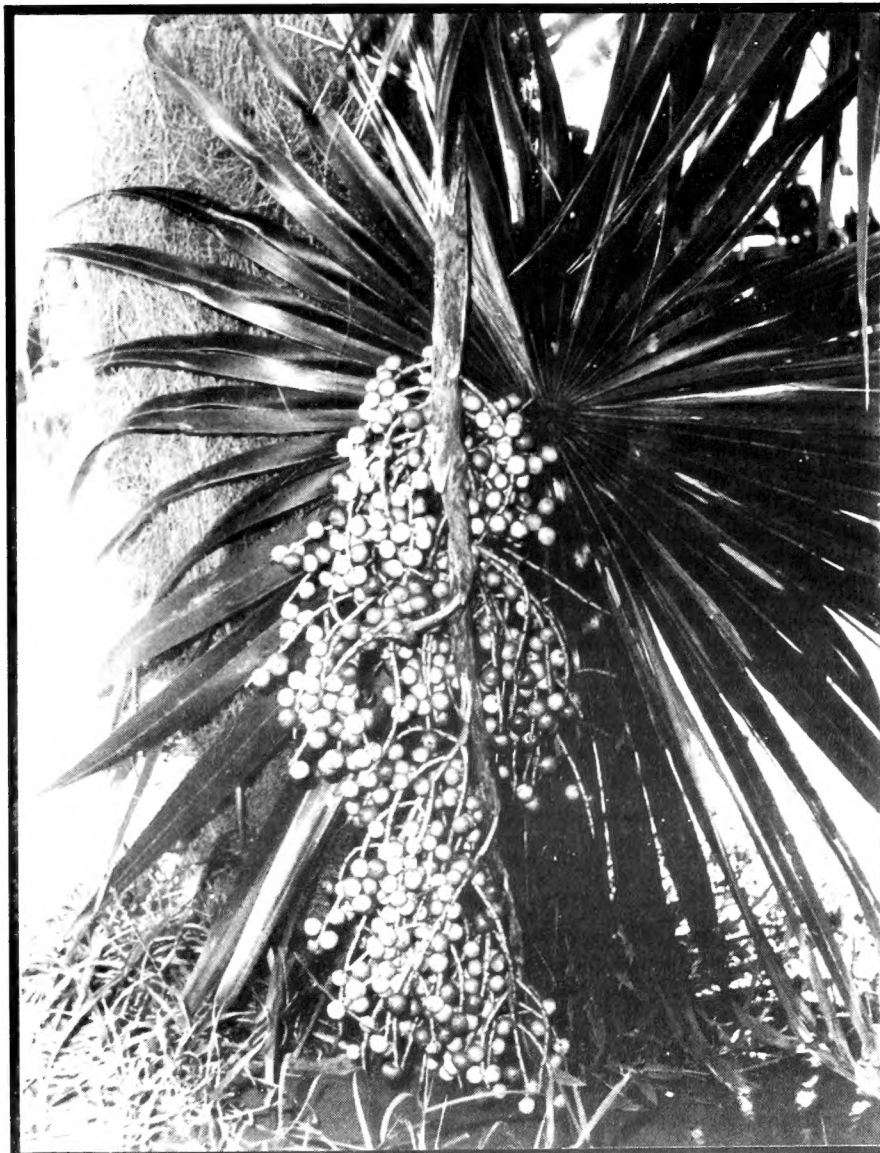


Figure 3 : A mature plant of Coccothrinax crinita, a very endangered palm, in full fruit in the Garden

According to current research, the Cuban phanerogamic flora include a total of 181 families (none of them endemic), about 1,300 genera (71 endemics) and approximately 6,140 species of native phanerophytes from which 3,150 (51.3%) are endemic. For Pteridophytes, a conservative number of 480 species has been estimated.

From these, nearly 800 Cuban taxa, 700 phanerophytes (11.4% of the flora), and 100 pteridophytes (21%) are under cultivation. The outdoor collection amounts to about 300 native taxa. The number of threatened Cuban endemic taxa under cultivation is 55 (6% of the total).

One of the particularly impressive features of the Garden is the four hectares of thorny coastal thicket vegetation in which an aesthetically pleasing rocky arrangement of shrubs, succulents and palms, evokes for visitors the proximity of the sea. Interesting plants such as *Spathelia vernicosa*, *Agave albescens*, *Dendrocereus nudiflorus*, *Leptocereus wrightii*, *Coccothrinax guantanamoensis*, *Calliandra colletioides*, are among more than a hundred species, which grow luxuriantly.

The dry forests that in nature occur inland from the coastal vegetation of Cuba are also represented. One of the most outstanding species that can be seen there is the very rare *Crescentia mirabilis*. Semi-deciduous forests contain very valuable species such as *Mimosa catalinae*, *Hildegardia cubensis*, *Hebestigma cubense*, *Bombacopsis cubensis* which feature among nearly a hundred other species. The microphyllous variant of these forests, rich in *Bucida* trees, *Copernicia* and *Sabal* palms which has been established today has a very natural appearance.

Pine forests, with interesting elements such as *Jacaranda arborea*, *Manilkara mayarensis*, *Coccothrinax orientalis*, *Coccothrinax yuraguana* and *Colpothrinax wrightii*, give a particular charm to this part of the garden.

An area of no more than a hectare has been created with serpentinic soil and is now rich in about 200 species planted representative of serpentinic vegetation. Rare plants such as *Sauvallella immarginata*, *Moacrotan revolutus*, *Gochnatia intertexta*, *Acacia daemon* and *Coccothrinax clarensis* (all of them threatened endemic species) are growing very well there (see Figure 2).

The Palmetum contains a good sample of Cuban palms, numbering around 40 taxa. The overall collection of palms amounts to a total of 150 taxa (Figures 3 and 4).

Most of these collections of Cuban plants have been assembled during on-going exploration of Cuba over the last two decades, as part of the flora research work.

It must be pointed out that it has been possible to cultivate large numbers of specimens of each species by the extension of our garden to 600 hectares. Furthermore, for each native species we try to grow specimens from different populations, thus minimizing the hazards to genetic diversity that are inherent in *ex situ* conservation.

In this connection, the number of native species offered in our seed list from 1973 to 1988 has increased steadily from 29 to 412.

Current research in the National Botanic Garden is focussed primarily on the study of our national flora. The Garden's herbarium contains 65,000 Cuban plants and 5,800 fungi, all collected after 1966.

The Plant Physiology Laboratory is concerned with investigation into propagation methods and reproductive strategy of the threatened endemic cycad *Microcycas calocoma*. *In situ* experiments on pollination, monitoring of seed formation, germination, *in vitro* propagation, and re-introduction into the wild of young plants obtained by seed germination and *in vitro* embryo culture to enhance populations in protected natural areas, are the main tasks thus so far achieved. As well as this, work has been started to increase the number of threatened species under cultivation in the Garden.



Figure 4 : Fruit-producing trees of Colpothrinax wrightii growing at the Garden. It is a member of a threatened palm species endemic to Western Cuba



Figure 5 : A partial view of the new complex of display pavilions

To this end, the preparation of artificial conditions of soils, rainfall and shade are essential. Last March, a new complex of display pavilions was opened. It is a building covering 3,300 square metres and incorporating special environmental conditions, for example, high insolation and drainage for desert plants, or a high degree of shade and humidity and special soils (including acidic soils) for rainforest plants. This complex has enabled us to increase the number of taxa that can be cultivated in the Garden. The very rich and endemic flora of Cuban rainforests can now be grown with success. By now a total of 1,450 taxa representing 440 genera and 90 families are exhibited at the Pavilions, and we anticipate that these figures will soon increase (Figure 5).

Computerization of records has been underway since the beginning of 1988 and the database is contains in the order of 3,000 accessions. For the database we use a personal computer with hard disk storage capacity of 20 Mb, and the D-Base III Plus system. As we have recently received the **International Transfer Format for Botanic Garden Records**, any necessary adjustments are now being made.

The Cuban National Botanic Garden maintains a very fruitful collaboration in the form of a long-term research project into Cuban flora with the Botanic Garden of Jena University, and the Arboretum of Humboldt University in Berlin. A very intensive exchange of scientists, gardeners, plants and experience has been conducted since 1975. More recently, an agreement has been signed with the Cordoba Botanic Garden in Spain to collaborate in topics related to micropropagation techniques, germplasm conservation, the cultivation of special groups of plants, and other subjects of mutual interest.

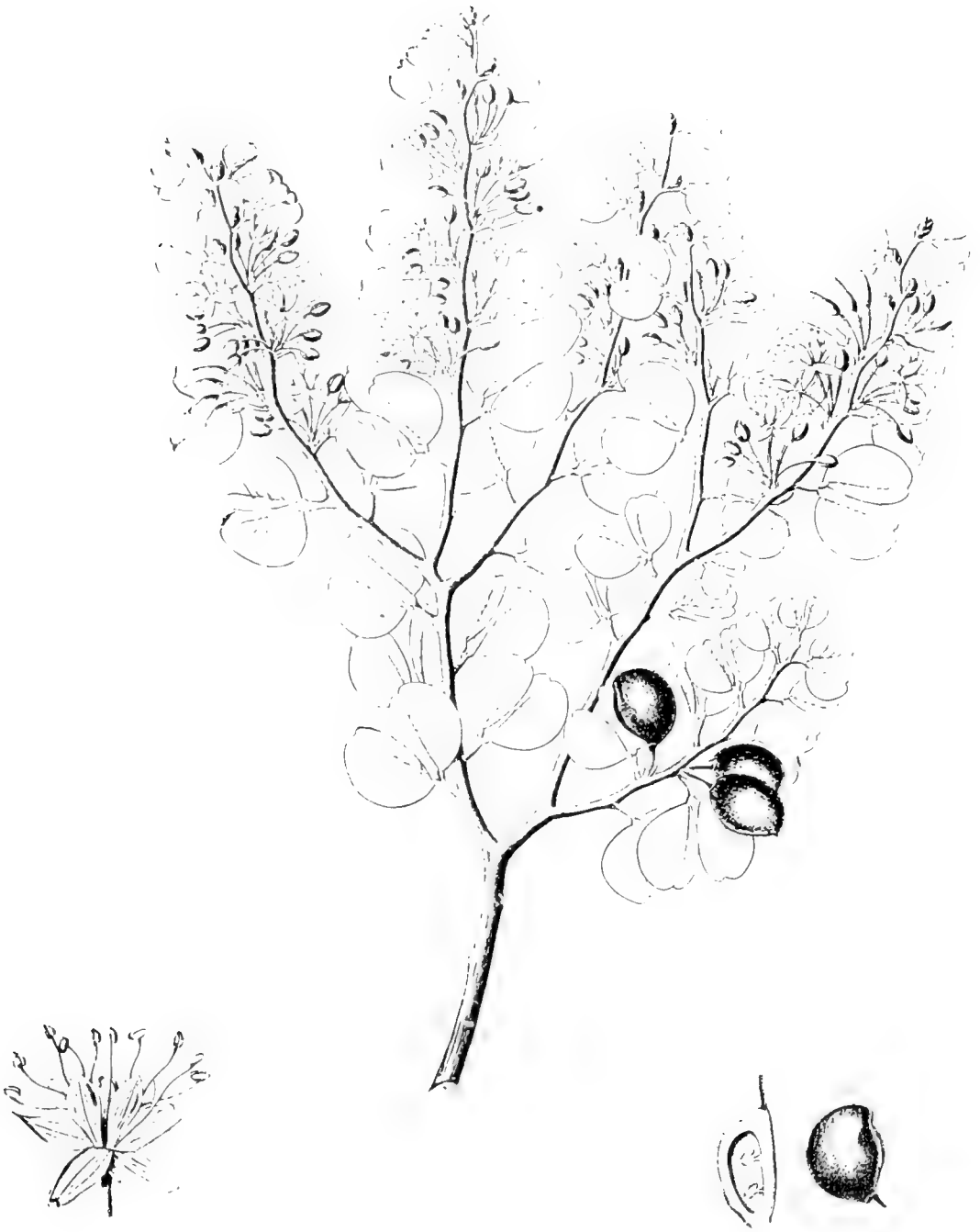
We are involved in seed exchange with 265 other institutions in 42 countries. Our publication, **Revista del Jardín Botánico Nacional** is sent to many institutions all over the world and appears three times a year.

Currently, new projects for botanic gardens are being developed in the cities of Santiago de Cuba, Holguin, Bayamo, Las Tunas and Sancti Spiritus. In each garden there is an emphasis on local flora and vegetation, but in addition, there are collections of tropical flora, economic plants, ornamental plants, historical or traditional gardening, greenhouses and shadehouses for cultivation and display, etc. In the case of each of these five projects, work is undertaken in close collaboration with the National Botanic Garden.

Two national meetings of Cuban Botanic Gardens have been held. The first took place in Cienfuegos Botanic Garden in 1981 on the occasion of that Garden's 80th Anniversary. The abstracts and papers presented were published in the **Revista del Jardín Botánico Nacional**. The second meeting was held at the National Botanic Garden itself in 1985. Nearly 80 people attended including representatives of several Botanic Gardens in Mexico and the Dominican Republic.

The Cuban National Botanic Garden is actively working on the organization of a new Latin American and Caribbean Section of IABG which will be officially established in July of 1990 on the occasion of the 5th Latin American Botanical Congress that will be held in Habana.

The Garden is open all year, Wednesday to Sunday from 9 a.m. to 5 p.m. Guided tours, leisure conferences and an amusement park for children, are among the features available to visitors. The Educational Programme includes visits of pupils from primary and secondary schools, television and radio programmes. More than half a million visitors have visited the Garden since it was opened in 1984.



Cynometra cubensis A. Rich (Leguminosae)
in La Sagra, Ic. Fl. Cub. Pl. Vasc. t.41. (1863).

GYMNOSPERMAE

ZAMIACEAE

- Microcycas calocoma (Miq.) A.DC. AMD, BRIST, FRP, FTG+, HAJB+,
HNT, K, LE, M, WAI
- Zamia ottonis Miq. br, hajb, z

ANGIOSPERMAE

APOCYNACEAE

- Tabernaemontana apoda C.Wright HAJB

ARACEAE

- Anthurium cubense Engler hajb, K, MTJB
- Anthurium gymnopus Griseb. HAJB
- Philodendron scaberulum C.Wright HAJB

BEGONIACEAE

- Begonia libanensis Urban HAJB

BIGNONIACEAE

- Crescentia mirabilis Ekman HAJB+
- Tabebuia pulverulenta Urban HAJB

BUXACEAE

- Buxus heterophylla Urban HAJB

CACTACEAE

- Cereus robinii (Lemaire) L.Benson FTG, HAJB+
- Dendrocereus nudiflorus (Engelm.)
Britton & Rose boch, BR, HAJB, HNT, K, ZSS
- Harrisia earlei Britton & Rose HNT, ZSS
- Harrisia fernowii Britton BR, HNT, MEL
- Harrisia taylori Britton B, HAJB, ZSS
- Leptocereus ekmanii (Werderm.) Knuth hajb
- Leptocereus sylvestris Britton & Rose HAJB
- Leptocereus wrightii Leon HAJB

Rare and Threatened Plants of Cuba in Botanic Garden Cultivation

CACTACEAE

| | |
|--|--|
| <u>Mammillaria prolifera</u> (Mill.) Haw. var. <u>prolifera</u> | <u>H</u> <u>A</u> <u>J</u> <u>B</u> |
| <u>Melocactus actinacanthus</u> Areces | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |
| <u>Melocactus borhidii</u> Meszaros | ZSS |
| <u>Melocactus evae</u> Meszaros | hajb+, ZSS |
| <u>Melocactus guitarti</u> Leon | <u>B</u> <u>E</u> <u>R</u> <u>N</u> , <u>H</u> <u>A</u> <u>J</u> <u>B</u> +, <u>H</u> <u>N</u> <u>T</u> , ZSS |
| <u>Melocactus harlowii</u> (Britton & Rose) Vaupel | <u>H</u> <u>A</u> <u>J</u> <u>B</u> +, ZSS |
| <u>Melocactus holguinensis</u> Areces | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |
| <u>Melocactus matanzanus</u> Leon | <u>B</u> , <u>B</u> <u>E</u> <u>R</u> <u>N</u> , <u>B</u> <u>R</u> <u>I</u> <u>S</u> <u>T</u> , <u>D</u> <u>U</u> <u>N</u> , <u>H</u> <u>A</u> <u>J</u> <u>B</u> +, <u>H</u> <u>N</u> <u>T</u> , <u>M</u> <u>E</u> <u>L</u> , <u>M</u> <u>T</u> <u>J</u> <u>B</u> , <u>O</u> <u>R</u> <u>T</u> +, ZSS |
| <u>Opuntia militaris</u> Britton & Rose | <u>H</u> <u>A</u> <u>J</u> <u>B</u> |

COMPOSITAE

| | |
|--|---------------------------------------|
| <u>Gochnatia intertexta</u> (C.Wright) Jervis & Alain | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |
|--|---------------------------------------|

ERICACEAE

| | |
|--------------------------------------|---------------------------------------|
| <u>Lyonia affinis</u> (A.Rich) Urban | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |
|--------------------------------------|---------------------------------------|

EUPHORBIACEAE

| | |
|----------------------------------|---------------------------------------|
| <u>Moacrotan revolutus</u> Alain | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |
|----------------------------------|---------------------------------------|

LEGUMINOSAE

| | |
|--|---------------------------------------|
| <u>Acacia daemon</u> Ekman & Urban | <u>H</u> <u>A</u> <u>J</u> <u>B</u> |
| <u>Erythrina acunae</u> Borh. | <u>K</u> |
| <u>Erythrina elenae</u> Howard & Briggs | hajb, <u>W</u> <u>A</u> <u>I</u> |
| <u>Mimosa catalinae</u> Leon | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |
| <u>Sauvallella immarginata</u> (C.Wright) Rydb. | <u>H</u> <u>A</u> <u>J</u> <u>B</u> |
| <u>Sophora polyphylla</u> Urban | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |

ORCHIDACEAE

| | |
|---|---------------------------------------|
| <u>Dilomilis bissei</u> H.Dietrich | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |
| <u>Phytinga polygonata</u> (Lindl.) H.Dietrich | <u>H</u> <u>A</u> <u>J</u> <u>B</u> + |

PALMAE

| | |
|---|--|
| <u>Acrocomia pilosa</u> Leon | <u>HAJB+</u> , VENTU |
| <u>Coccothrinax borhidiana</u> Muniz | ftg, <u>HAJB+</u> , VENTU+ |
| <u>Coccothrinax clarensis</u> Leon subsp. <u>brevifolia</u> (Leon) Borhidi & Muniz | VENTU+ |
| <u>Coccothrinax crinita</u> Becc. | darw, FTG+, hnt, K, LASCR |
| <u>Coccothrinax crinita</u> Becc. subsp. <u>crinita</u> | FTG+, <u>HAJB+</u> , VENTU+ |
| <u>Coccothrinax crinita</u> Becc. subsp. <u>brevicrinis</u> Borhidi & Muniz | ftg, <u>HAJB+</u> |
| <u>Coccothrinax pseudorigida</u> Leon | <u>HAJB</u> |
| <u>Colpothrinax wrightii</u> Griseb. & H.Wendl. | FTG, <u>HAJB+</u> , VENTU+ |
| <u>Copernicia curbeloi</u> Leon | <u>HAJB</u> |
| <u>Copernicia fallaensis</u> Leon | <u>HAJB+</u> , VENTU |
| <u>Copernicia gigas</u> E.L.Ekman ex Burret | FTG+, <u>HAJB+</u> , VENTU+ |
| <u>Copernicia humicola</u> Leon | <u>FTG</u> |
| <u>Copernicia oxycalyx</u> Burret | <u>HAJB</u> |
| <u>Copernicia roigii</u> Leon | <u>HAJB</u> |
| <u>Roystonea regia</u> (H.B. & K.) O.F.Cook | CAIR+, darw+, <u>LASCR</u> , USCG, VENTU |
| <u>Roystonea regia</u> (H.B. & K.) O.F.Cook var. <u>pinguis</u> L.H.Bailey | <u>FTG+</u> |
| <u>Thrinax ekmaniana</u> (Burret) Borhidi & Muniz | ventu |

Key to the Botanic Garden Codes

- AMD Hortus Botanicus of the University of Amsterdam, Plantage Middenlaan 2, 1018 DD AMSTERDAM, The Netherlands.
- B Botanischer Garten und Museum Berlin-Dahlem, Konigin-Luise-Strasse 6-8, D-1000 BERLIN 33, Federal Republic of Germany.
- BERN Botanischer Garten der Universitat Bern, Altenbergrain 21, CH-3013 BERN, Switzerland.
- BOCH Botanischer Garten Ruhr-Universitat Bochum, Universitatstrasse 150, Postfach 102148, D-4630 BOCHUM 1, Federal Republic of Germany.
- BR Jardin Botanique National de Belgique, Domaine de Bouchout, B-1860 MEISE, Belgium.
- BRIST University of Bristol Botanic Garden, Department of Botany, Woodland Road, BRISTOL BS8 1UG, U.K.
- CAIR The Flecker Botanic Gardens, Cairns Parks and Gardens Recreation Department, Cairns City Council, P.O. Box 359, CAIRNS, Queensland 4870, Australia.
- DARW Darwin Botanic Garden, Parks Curator, Town Clerk, P.O. Box 84, Darwin NT 5794, Australia.
- DUN Dunedin Botanic Garden, P.O. Box 5045, Dunedin, New Zealand.
- FRP Palmengarten der Stadt Frankfurt, Siesmayerstrasse 61, D-6000 FRANKFURT AM MAIN-1, Federal Republic of Germany.
- FTG Fairchild Tropical Garden, 10901 Old Cutler Road, MIAMI, Florida 33156, U.S.A.
- HAJB Jardin Botanico Nacional, Universidad de La Havana, Carretera del Rocio, Km 3.5 Calabazar, Boyeros, Havana, Cuba.
- HNT Huntington Botanical Gardens, 1151 Oxford Road, SAN MARINO, California 91108, U.S.A.
- K Royal Botanic Gardens, KEW, Richmond, Surrey TW9 3AB, U.K.
- LASCR Jardin Botanico "Robert y Catherine Wilson", Organizacion para Estudios Tropicales, Apartado 676-2050, San Pedro de Montes de Oca, San Jose, Costa Rica
- LE Botanical Garden, Komarov Botanical Institute, Academy of Sciences, Professor Popov Street 2, 197022 LENINGRAD 22, U.S.S.R.
- M Botanischer Garten Munchen-Nymphenburg,, Menzingerstrasse 61, D-8000 MUNCHEN 19, Federal Republic of Germany.
- MEL Royal Botanic Gardens of Melbourne, Birdwood Avenue, SOUTH YARRA, Victoria 3141, Australia.
- MTJB Jardin Botanique de Montreal, 4101 est, rue Sherbrooke, MONTREAL, Quebec H1X 2B2, Canada.

Key to the Botanic Garden Codes

| | |
|-------|---|
| ORT | Jardin de Aclimatacion de la Orotava, Puerto de la Cruz, TENERIFE, Canary Islands, Spain. |
| USCG | Jardin Bot. Universidad de San Carlos de Guatemala, Facultad de Ciencias Quimicas y Farmacia, Centro de Estudios Conservacionistas, (CECON), Avenida de La Reforma 0-63, Zona 10, Guatemala |
| VENTU | Ventura County Community College District, 71 Day Road Ventura CA 93003 U.S.A. |
| WAI | Waimea Arboretum & Botanical Garden, 59-864 Kamehameha Highway, HALEIWA, Hawaii 96712, U.S.A. |
| Z | University of Zurich Botanic Garden, Zollikerstrasse 107, CH-8008 ZURICH, Switzerland. |
| ZSS | Stadt. Sukkulenten-Sammlung, Mythenquai 88, CH-8002 ZURICH, Switzerland. |

Notes

Upper case underlined (e.g. ABCD) indicates plants of known wild origin

Upper case alone (e.g. ABCD) indicates plants of known cultivated source.

Lower case alone (e.g. abcd) indicates plants from an unknown source.

+ following the code indicates that duplicate material is available.

Where a garden holds both wild and cultivated source material the wild source code is used as, clearly, the wild source material is the more valuable.

Definitions of the IUCN Conservation (Red Data Book) Categories

A. THREATENED CATEGORIES

Extinct (Ex)

Taxa which are no longer known to exist in the wild after repeated searches of their type localities and other known or likely places.

Endangered (E)

Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating.

Included are taxa whose numbers have been reduced to a critical level or whose habitats have been so drastically reduced that they are deemed to be in immediate danger of extinction.

Vulnerable (V)

Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating.

Included are taxa of which most or all the populations are *decreasing* because of over-exploitation, extensive destruction of habitat or other environmental disturbance; taxa with populations that have been seriously *depleted* and whose ultimate security is not yet assured; and taxa with populations that are still abundant but are *under threat* from serious adverse factors throughout their range.

Rare (R)

Taxa with small world populations that are not at present Endangered or Vulnerable, but are at risk.

These taxa are usually localized within restricted geographical areas or habitats or are thinly scattered over a more extensive range.

Indeterminate (I)

Taxa *known* to be Extinct, Endangered, Vulnerable or Rare but where there is not enough information to say which of the four categories is appropriate.

B. UNKNOWN CATEGORIES

Status Unknown (?)

No information.

Insufficiently known (K)

Taxa that are suspected but not definitely known to belong to any of the above categories, following assessment, because of the lack of information.

C. NOT THREATENED CATEGORY

Safe (nt)

Neither rare nor threatened.

CUBA



Geographic Distribution (Provinces)

Pinar del Río (PR)
La Habana (LH)
Isla de la Juventud (formerly Isla de Pinos) (IJ)
Matanzas (Ma)
Cienfuegos (Ci)
Sancti Spiritus (SS)
Camagüey (Ca)
Holguín (Ho)
Granma (Gr)
Santiago de Cuba (SC)
Guantánamo (Gu)
Ciego de Avila (Ci)
Las Tunas (LT)
Villa Clara (VC)
Las Villas (LV)*
Oriente (Or)*

* Old political administrative division, used when available information on locality is not very accurate.

RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|-------------------------------------|----------|----------|----------|----------------|
| <u>PTERIDOPHYTA</u> | | | | | |
| <u>CYATHEACEAE</u> | | | | | |
| Alsophila brooksii (Maxon) R.Tryon | Cuba I, Hispaniola I, Puerto Rico I | I | I | Y | C W U D |
| Trichipteris strigillosa (Maxon) R.Tryon | Cuba V | V | V | | C W U D |
| <u>GYMNOSPERMAE</u> | | | | | |
| <u>CUPRESSACEAE</u> | | | | | |
| Juniperus saxicola Britton & P.Wilson | Cuba (Granma; Santiago de Cuba) R | R | R | | C W U D |
| <u>PODOCARPACEAE</u> | | | | | |
| Podocarpus angustifolius Griseb. | Cuba (Las Villas; Pinar del Rio) E | E | E | | C W U D |
| <u>ZAMIACEAE</u> | | | | | |
| Microcycas calocoma (Miq.) A.DC. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Zamia angustifolia Jacq. | Bahamas (Eleuthera) E, Cuba E | E | E | Y | C W U D |
| Zamia ottonis Miq. | Cuba R | R | R | | C W U D |
| Zamia silicea Britton | Cuba (I. Juventud) I | I | I | | C W U D |
| <u>ANGIOSPERMAE</u> | | | | | |
| <u>ACANTHACEAE</u> | | | | | |
| Apassalus parvulus Alain & Leonard | Cuba (Guantanamo) E | E | E | | C W U D |
| Drejerella maestrensis Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Elytraria bissei H.Dietrich | Cuba (Guantanamo) V | V | V | | C W U D |
| Elytraria filicaulis Borh. & Muniz | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| Elytraria spathulifolia Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| Justicia agria Alain & Leonard | Cuba (Granma) I | I | I | | C W U D |
| Justicia stenophylla Urban & Britton | Cuba (Camaguey) I | I | I | | C W U D |
| Oplonia acunae Borh. | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| Oplonia moana Borh. | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| Phidiasia lindavii Urban | Cuba (Holguin) R | R | R | | C W U D |
| Sapphoa ekmanii Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| Stenandrium arnoldii H.Dietrich | Cuba (Holguin) V | V | V | | C W U D |
| Stenandrium ekmanii Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Stenandrium pallidum H.Dietrich | Cuba (Guantanamo) V | V | V | | C W U D |
| <u>AGAVACEAE</u> | | | | | |
| Agave acicularis Trel. | Cuba (Cienfuegos) E | E | E | | C W U D |
| Agave grisea Trel. | Cuba (Cienfuegos) E | E | E | | C W U D |
| Agave papyrocarpa Trel. | Cuba (Isla de la Juventud) E | E | E | | C W U D |
| <u>AIZOACEAE</u> | | | | | |
| Cypselea rubriflora Urban | Cuba (Matanzas; Cienfuegos) I | I | I | | C W U D |
| Mollugo brevipes Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Mollugo cubensis Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Mollugo deltoidea Leon | Cuba (Holguin) E | E | E | | C W U D |
| Mollugo enneandra C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Mollugo pinosia Urban | Cuba (I. Juventud) E | E | E | | C W U D |
| <u>AMARANTHACEAE</u> | | | | | |
| Alternanthera crassifolia (Standley) Alain | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| Goerziella minima (Standley) Urban | Cuba (Pinar del Rio) R | R | R | | C W U D |
| <u>ANACARDIACEAE</u> | | | | | |
| Euleria tetramera Urban | Cuba (Ci; VC; SS) R | R | R | | C W U D |
| <u>ANNONACEAE</u> | | | | | |
| Annona cristalensis (Alain) Borh. & Moncada | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| Annona ekmanii R.E.Fries | Cuba (Holguin) I | I | I | | C W U D |
| Annona elliptica R.E.Fries | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Annona havanensis R.E.Fries | Cuba (Ciud. Habana; Matanzas) E | E | E | | C W U D |
| Annona moaensis Leon & Alain | Cuba (Holguin) E | E | E | | C W U D |
| Annona oblongifolia R.E.Fries | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| Desmopsis neglecta (A.Rich.) R.E.Fries | Cuba (Pinar del Rio; Cienfuegos) I | I | I | | C W U D |
| Xylopia acunae Borh. & Risco | Cuba (Sancti Spiritus) I | I | I | | C W U D |

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 D - Duplicate material available.
 See end for contents of Fields labelled 1 to 3

RARE AND THREATENED PLANTS OF CUBA

| Plant name | Distribution (Cons. status) | 1 | 2 | 3 | Circle: |
|---|------------------------------------|----|----|---|---------|
| ANNONACEAE (Cont.) | | | | | |
| <i>Xylopia ekmanii</i> R.E.Fries | Cuba (Guantanamo) I | I | I | | C W U D |
| APOCYNACEAE | | | | | |
| <i>Cameraria microphylla</i> Britton | Cuba (Ciego de Avila; Camaguey) E | E | E | | C W U D |
| <i>Cameraria obovalis</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Neobraccia acunaiana</i> Lippold | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Neobraccia martiana</i> Borh. & Muniz | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Neobraccia susannina</i> Borh. | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Rauvolfia linearifolia</i> Britton & P.Wilson | Cuba (Santiago de Cuba; Holguin) V | V | V | | C W U D |
| <i>Tabernaemontana apoda</i> C.Wright | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| AQUIFOLIACEAE | | | | | |
| <i>Ilex moana</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Ilex nannophylla</i> Borh. & Muniz | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| ARACEAE | | | | | |
| <i>Anthurium cubense</i> Engler | Cuba (SC; Gu) I | I | I | | C W U D |
| <i>Anthurium gymnopus</i> Griseb. | Cuba (Pinar del Rio) R | R | R | | C W U D |
| <i>Philodendron clementis</i> C.Wright ex Griseb. | Cuba (PR; LV; LH) Ex | Ex | Ex | | C W U D |
| <i>Philodendron scaberulum</i> C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| ARALIACEAE | | | | | |
| <i>Megalopanax rex</i> Ekman | Cuba (H; VC; SS) E | E | E | | C W U D |
| ASCLEPIADACEAE | | | | | |
| <i>Cynanchum ekmanii</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Cynanchum wrightianum</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Matelea acuminata</i> (Griseb.) Woods. | Cuba E | E | E | | C W U D |
| <i>Matelea bayatensis</i> (Urban) Woods. | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Matelea grisebachiana</i> (Schltr.) Cuba E | Cuba E | E | E | | C W U D |
| <i>Matelea tigrina</i> (Griseb.) Woods. | Cuba E | E | E | | C W U D |
| BEGONIACEAE | | | | | |
| <i>Begonia bissei</i> J.Sierra | Cuba (Guantanamo) V | V | V | | C W U D |
| <i>Begonia cowellii</i> Nash | Cuba (Granma) Ex | Ex | Ex | | C W U D |
| <i>Begonia cubensis</i> Hassk. | Cuba (Santiago de Cuba) V | V | V | | C W U D |
| <i>Begonia leivae</i> J.Sierra | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Begonia libanensis</i> Urban | Cuba (Guantanamo) V | V | V | | C W U D |
| <i>Begonia lomensis</i> Britton & P.Wilson | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Begonia maestrensis</i> Urban | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Begonia wrightiana</i> A.DC | Cuba (Guantanamo) V | V | V | | C W U D |
| BIGNONIACEAE | | | | | |
| <i>Catalpa brevipes</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Crescentia mirabilis</i> Ekman | Cuba (Camaguey) E | E | E | | C W U D |
| <i>Synopsis ilicifolia</i> Griseb. | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Tabebuia acunana</i> Borh. & Muniz | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Tabebuia anafensis</i> Urban | Cuba (Ciud. Habana; Matanzas) I | I | I | | C W U D |
| <i>Tabebuia bibracteolata</i> (Griseb.) Britton | Cuba E | E | E | | C W U D |
| <i>Tabebuia capotei</i> Borh. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Tabebuia del-riscoi</i> Borh. | Cuba (Pinar del Rio; Holguin) I | I | I | | C W U D |
| <i>Tabebuia furfuracea</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Tabebuia geronensis</i> Britton | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Tabebuia jackiana</i> Ekman | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Tabebuia jojoana</i> Britton & P.Wilson | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Tabebuia leonis</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Tabebuia linearis</i> Alain | Cuba (Holguin) E | E | E | | C W U D |
| <i>Tabebuia oligolepis</i> Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| <i>Tabebuia pergracilis</i> Britton & P.Wilson | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Tabebuia picotensis</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Tabebuia pulverulenta</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Tabebuia sagraei</i> Urban | Cuba E | E | E | | C W U D |
| <i>Tabebuia saxicola</i> Britton | Cuba (Villa Clara) E | E | E | | C W U D |
| <i>Tabebuia zolyomiana</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|---|----------|----------|----------|----------------|
| BORAGINACEAE | | | | | |
| <i>Cordia acunae</i> (Mold.) Alain | Cuba (Holguin) E | E | E | | C W U D |
| <i>Cordia corallicola</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Cordia dumosa</i> Alain | Cuba (Las Tunas; Guantanamo) I | I | I | | C W U D |
| <i>Cordia iberica</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Cordia intricata</i> C.Wright | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| <i>Cordia suffruticosa</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Cordia valenzuelana</i> A.Rich. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Cordia van-hermannii</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Heliotropium myriophyllum</i> Urban | Cuba (Camaguey) I | I | I | | C W U D |
| <i>Heliotropium serpylloides</i> Griseb. | Cuba (SC; Gu) I | I | I | | C W U D |
| <i>Rochefortia oblongata</i> Urban & Ekman | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| BUXACEAE | | | | | |
| <i>Buxus acuminata</i> (Griseb.) Muell. Arg. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Buxus acunae</i> Borh. & Muniz | Cuba (Holguin) E | E | E | | C W U D |
| <i>Buxus baracoensis</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Buxus cubana</i> Baill. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Buxus heterophylla</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Buxus moana</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Buxus muelleriana</i> Urban | Cuba E | E | E | | C W U D |
| <i>Buxus revoluta</i> (Britton) Alain | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Buxus rotundifolia</i> (Britton) Mathou | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Buxus vaccinioides</i> (Britton) Urban | Cuba (SC; Ho; Gu) I | I | I | | C W U D |
| CACTACEAE | | | | | |
| <i>Cereus robinii</i> (Lemaire) L.Benson var. <i>robinii</i> | Cuba V Florida (5 populations remaining) E | V E | V | ? | C W U D |
| <i>Consolea macracantha</i> (Griseb.) Berg. | Cuba V | V | V | | C W U D |
| <i>Dendrocereus nudiflorus</i> (Engelm.) Britton & Rose | Cuba V | V | V | | C W U D |
| <i>Harrisia earlei</i> Britton & Rose | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Harrisia fernowii</i> Britton | Cuba R | R | R | | C W U D |
| <i>Harrisia taylori</i> Britton | Cuba V | V | V | | C W U D |
| <i>Leptocereus arboreus</i> Britton & Rose | Cuba (C; Ci; SS) V | V | V | | C W U D |
| <i>Leptocereus assurgens</i> (C.Wright) Britton & Rose | Cuba R | R | R | | C W U D |
| <i>Leptocereus ekmanii</i> (Werderm.) Knuth | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Leptocereus leonii</i> Britton & Rose | Cuba (Holguin) E | E | E | | C W U D |
| <i>Leptocereus maxonii</i> Britton & Rose | Cuba (SC; Gu) R | R | R | | C W U D |
| <i>Leptocereus prostratus</i> Britton & Rose | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Leptocereus sylvestris</i> Britton & Rose | Cuba (Granma) R | R | R | | C W U D |
| <i>Leptocereus wrightii</i> Leon | Cuba (Ciud. Habana; Prov. Habana) Ex | Ex | Ex | | C W U D |
| <i>Mammillaria prolifera</i> (Mill.) Haw. var. <i>prolifera</i> | Cuba V, Haiti ? | I | I | | C W U D |
| <i>Melocactus actinacanthus</i> Areces | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Melocactus borhidii</i> Meszaros | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Melocactus evae</i> Meszaros | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Melocactus guitarti</i> Leon | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Melocactus harlowii</i> (Britton & Rose) Vaupel | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Melocactus holguinensis</i> Areces | Cuba (Holguin) E | E | E | | C W U D |
| <i>Melocactus matanzanus</i> Leon | Cuba (Matanzas) E | E | E | | C W U D |
| <i>Melocactus nagyii</i> Meszaros | Cuba (Granma; Santiago de Cuba) E | E | E | | C W U D |
| <i>Melocactus radoczii</i> Meszaros | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Opuntia auberi</i> Pfeiffer | Cuba R | R | R | | C W U D |
| <i>Opuntia militaris</i> Britton & Rose | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Pereskia cubensis</i> Britton & Rose | Cuba (Or; Ca; LV) E | E | E | | C W U D |
| <i>Selenicereus brevispinus</i> Britton & Rose | Cuba (Camaguey) R | R | R | | C W U D |
| CAMPANULACEAE | | | | | |
| <i>Siphocampylus impressus</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Siphocampylus libanensis</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Siphocampylus undulatus</i> Urban | Cuba (G; SC; Ho) I | I | I | | C W U D |
| <i>Siphocampylus yumuriensis</i> Kirouac | Cuba (Guantanamo) E | E | E | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

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|---|-------------------------------------|----------|----------|----------|----------------|
| CANELLACEAE | | | | | |
| Cinnamodendron cubense Urban | Cuba (Oriente) R | R | R | | C W U D |
| CAPPARACEAE | | | | | |
| Cleome gamboensis Urban | Cuba (Las Tunas; Granma) E | E | E | | C W U D |
| Cleome tenuicaulis Urban | Cuba (Canaguey; Las Tunas) E | E | E | | C W U D |
| Forchhammeria polyandra (Griseb.) Alain | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| CARYOPHYLLACEAE | | | | | |
| Pinosia glandulosa Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| CELASTRACEAE | | | | | |
| Crossopetalum ekmanii (Urban) Alain | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| Crossopetalum rostratum (Urban) Rothm. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Gyminda orbicularis Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| Maytenus lineata C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Salacia wrightii Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| CHLORANTHACEAE | | | | | |
| Hedyosmum leonis Kirouac | Cuba (Holguin) I | I | I | | C W U D |
| Hedyosmum subintegrum Urban | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| CLUSIACEAE | | | | | |
| Clusia alainii Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| Clusia moensis Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| Garcinia clarensis Borh. | Cuba (Matanzas; Villa Clara) I | I | I | | C W U D |
| Rheedia aristata Griseb. | Cuba (LH; PR; IJ) R | R | R | | C W U D |
| COMBRETACEAE | | | | | |
| Bucida molineti (M.Gomez) Alwan ined. | Cuba R, Belize R, Guatemala R | R | R | Y | C W U D |
| Terminalia eriostachya A.Rich. | Cuba (Or; LV; LH; PR) R | R | R | | C W U D |
| Terminalia intermedia (A.Rich.) Urban | Cuba (Or; LV; LH; PR) R | R | R | | C W U D |
| Terminalia pachystyla Borh. | Cuba (Holguin) I | I | I | | C W U D |
| COMMELINACEAE | | | | | |
| Sauvallea blainii C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| COMPOSITAE | | | | | |
| Aster grisebachii Britton | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| Baccharis orientalis (Alain)Borh. | Cuba (Las Tunas) I | I | I | | C W U D |
| Chaptalia comptonioides Britton & P.Wilson | Cuba (Granma) I | I | I | | C W U D |
| Chaptalia ekmanii Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Chaptalia turquinensis Borh. & Muniz | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Ciceronia chaptalioides Urban | Cuba (Holguin) I | I | I | | C W U D |
| Ekmania lepidota (Griseb.) Gleas. | Cuba (Guantanamo) I | I | I | | C W U D |
| Elephantopus arenarius Britton & P.Wilson | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| Epaltes mattfeldii Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Erigeron libanensis Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| Erigeron paucilobus Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Erigeron taylori Britton & P.Wilson | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| Eupatorium atroglandulosum Alain | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| Eupatorium breviflorum Alain | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Eupatorium chalceorithales Robins. | Cuba E | E | E | | C W U D |
| Eupatorium imbricatum (Griseb.) Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| Eupatorium oligadenium Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| Feddea cubensis Urban | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| Gochnatia ekmanii (Urban) Jervis & Alain | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Gochnatia gomezii (Leon) Jervis & Alain | Cuba (Holguin) I | I | I | | C W U D |
| Gochnatia intertexta (C.Wright) Jervis & Alain | Cuba (Pinar del Rio) V | V | V | | C W U D |
| Gochnatia maisiana (Leon) Jervis & Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| Gochnatia mantuensis (C.Wright) Jervis & Alain | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Gochnatia montana (Britton) Jervis & Alain | Cuba (Pinar del Rio) I | I | I | | C W U D |

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See end for contents of Fields labelled 1 to 3

RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|-------------------------------------|----------|----------|----------|----------------|
| COMPOSITAE (Cont.) | | | | | |
| Gochnatia parvifolia (Britton) Jervis & Alain | Cuba (Holguin) I | I | I | | C W U D |
| Gochnatia wilsoni (Britton) Jervis & Alain | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| Helenium scaposum Britton | Cuba (I. Juventud) E | E | E | | C W U D |
| Heptanthus brevipes C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Heptanthus cochlearifolius Griseb. | Cuba (Pinar del Rio; I. Juventud) V | V | V | | C W U D |
| Heptanthus yumuriensis Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| Isocarpha glabrata Blake | Cuba (Camaguey) I | I | I | | C W U D |
| Koehneola repens (Griseb.) Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| Lantanopsis tomentosa Borh. & Moncada | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| Mikania hioramii Britton & Robins. | Cuba (Guantanamo) I | I | I | | C W U D |
| Pectis havanensis Urban | Cuba (Ciud. Habana) I | I | I | | C W U D |
| Pectis juniperina Rydb. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Pectis leonis Rydb. | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| Pectis pinosia Urban | Cuba (I. Juventud) E | E | E | | C W U D |
| Pectis ritlandii Howard & Briggs | Cuba (Cienfuegos) I | I | I | | C W U D |
| Rhodogeron coronopifolius Griseb. | Cuba (Villa Clara) I | I | I | | C W U D |
| Sachsia tricephala Griseb. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Salmea caleoides Griseb. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Salmea glaberrima C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Salmea umratilis Robins. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Senecio azulensis Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| Senecio carinatus Greenman | Cuba (Holguin) I | I | I | | C W U D |
| Senecio moaensis Alain | Cuba (Holguin) I | I | I | | C W U D |
| Senecio moldenkei Greenman | Cuba (Holguin) I | I | I | | C W U D |
| Senecio pachylepis Greenman | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| Senecio sauetii Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| Spaniopappus ekmanii Robins. | Cuba (Guantanamo) I | I | I | | C W U D |
| Tetraperone bellioides (Griseb.) Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Thymopsis polyantha (Urban) Borh. & Muniz | Cuba (Matanzas; Villa Clara) E | E | E | | C W U D |
| Verbesina angulata Urban | Cuba (Ciud. Habana; Prov. Habana) I | I | I | | C W U D |
| Vernonia aronifolia Gleas. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Vernonia cristalensis Alain | Cuba (Holguin) I | I | I | | C W U D |
| Vernonia leonis Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| Vernonia maestralis Ekman & Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| Vernonia reedii Ekman & Urban | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| Vernonia viminalis Gleas. | Cuba E | E | E | | C W U D |
| Vernonia yunquensis Gleas. | Cuba (Guantanamo) I | I | I | | C W U D |
| CONVOLVULACEAE | | | | | |
| Evolvulus siliceus Britton & P.Wilson | Cuba (I. Juventud) E | E | E | | C W U D |
| Ipomoea alterniflora Griseb. | Cuba (PR; ?G; ?SC;) I | I | I | | C W U D |
| Ipomoea erosa Urban | Cuba (Holguin) I | I | I | | C W U D |
| Ipomoea excisa Urban | Cuba (Prov. Habana) I | I | I | | C W U D |
| Ipomoea flavo-purpurea Urban | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| Turbina wrightii (House) Alain | Cuba E | E | E | | C W U D |
| CUCURBITACEAE | | | | | |
| Cayaponia excisa (Griseb.) Cogn. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| CYPERACEAE | | | | | |
| Carex cubensis Kuk. | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Cyperus pinetorum Britton | Cuba (Pinar del Rio; I. Juventud) I | I | I | | C W U D |
| Fimbristylis ophiticola Britton | Cuba (H; CH; C) I | I | I | | C W U D |
| Kyllinga urbanii Kuk. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Rhynchospora bucherorum Leon | Cuba (Holguin) E | E | E | | C W U D |
| Rhynchospora grisebachii Boeckl. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Rhynchospora joveroensis Britton | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Rhynchospora nuda Gale | Cuba (I. Juventud) E | E | E | | C W U D |
| Rhynchospora schmidtii Kuk. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Rhynchospora siguaneana Britton | Cuba (I. Juventud) I | I | I | | C W U D |
| Rhynchospora squamulosa Kuk. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Rhynchospora subimberbis Griseb. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Scleria motemboensis Britton | Cuba (Matanzas; Villa Clara) E | E | E | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| Plant name | Distribution (Cons. status) | 1 | 2 | 3 | Circle: |
|---|-------------------------------------|----|----|---|---------|
| CYRILLACEAE | | | | | |
| <i>Purdiaea ekmanii</i> Kirouac | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Purdiaea microphylla</i> Britton & P.Wilson | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| DICHAPETALACEAE | | | | | |
| <i>Tapura orbicularis</i> Ekman | Cuba (Holguin) I | I | I | | C W U D |
| DIOSCOREACEAE | | | | | |
| <i>Dioscorea ekmanii</i> Knuth | Cuba (H; CH; VC) E | E | E | | C W U D |
| <i>Dioscorea herradurensis</i> (Knuth) P.Wilson | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Rajania hermannii</i> Knuth | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Rajania prestoniensis</i> Knuth | Cuba (Holguin) Ex | Ex | Ex | | C W U D |
| <i>Rajania theresensis</i> Uline | Cuba E | E | E | | C W U D |
| ERICACEAE | | | | | |
| <i>Kalmiella aggregata</i> Small | Cuba (I. Juventud) V | V | V | | C W U D |
| <i>Kalmiella ericoides</i> C.Wright | Cuba (Pinal del Rio; I. Juventud) V | V | V | | C W U D |
| <i>Kalmiella simulata</i> Britton & P.Wilson | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Lyonia affinis</i> (A.Rich.) Urban | Cuba (Santiago de Cuba; Holguin) R | R | R | | C W U D |
| <i>Lyonia clementis</i> Acuna & Roig | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Lyonia ekmanii</i> Urban | Cuba (Pinal del Rio) V | V | V | | C W U D |
| <i>Lyonia glandulosa</i> (A.Rich.) Griseb. var. <i>toaensis</i> (Acuna & Roig) R.Berazain | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Lyonia latifolia</i> (A.Rich.) Griseb. ssp. <i>latifolia</i> | Cuba (SC; Gu) R | R | R | | C W U D |
| <i>Lyonia latifolia</i> (A.Rich.) Griseb. ssp. <i>calycosa</i> (Small) Borh. | Cuba (SC; Gu) R | R | R | | C W U D |
| <i>Lyonia leonis</i> Acuna & Roig | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Lyonia maestrensis</i> Acuna & Roig | Cuba (Granma) R | R | R | | C W U D |
| <i>Vaccinium shaveri</i> Acuna & Roig | Cuba (Holguin; Guantanamo) R | R | R | | C W U D |
| ERIOCAULACEAE | | | | | |
| <i>Eriocaulon arenicola</i> Britton & Small | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Eriocaulon cubense</i> Ruhl. | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Eriocaulon echinospermoideum</i> Ruhl. | Cuba (Villa Clara) Ex | Ex | Ex | | C W U D |
| <i>Eriocaulon ekmanii</i> Ruhl. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Eriocaulon fusiforme</i> Britton & Small | Cuba (I. Juventud) I | I | I | | C W U D |
| <i>Eriocaulon minutissimum</i> Ruhl. | Cuba (Pinar del Rio) Ex | Ex | Ex | | C W U D |
| <i>Eriocaulon miserrimum</i> Ruhl. | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Eriocaulon olivaceum</i> Mold. | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Eriocaulon ovoideum</i> Britton & Small | Cuba (I. Juventud) I | I | I | | C W U D |
| <i>Lachnocaulon cubense</i> Ruhl. | Cuba (Villa Clara) Ex | Ex | Ex | | C W U D |
| <i>Paepalanthus nipensis</i> L.Gonzalez Geigel | Cuba (Holguin) R | R | R | | C W U D |
| <i>Paepalanthus pungens</i> Griseb. | Cuba (Holguin) V | V | V | | C W U D |
| <i>Syngonanthus insularis</i> Mold. | Cuba (I. Juventud) V | V | V | | C W U D |
| ERYTHROXYLACEAE | | | | | |
| <i>Erythroxylum baracoense</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Erythroxylum clarensense</i> Borh. | Cuba (Ci; SS) I | I | I | | C W U D |
| <i>Erythroxylum dumosum</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Erythroxylum echinodendron</i> Ekman | Cuba (VC; SS) I | I | I | | C W U D |
| <i>Erythroxylum horridum</i> Borh. & Oviedo | Cuba (Holguin) I | I | I | | C W U D |
| EUPHORBIACEAE | | | | | |
| <i>Acalypha hutchinsonii</i> Britton | Cuba (Ci; SS) I | I | I | | C W U D |
| <i>Acalypha nana</i> Griseb. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Acidocroton acunae</i> Borh. & Muniz | Cuba (Villa Clara) I | I | I | | C W U D |
| <i>Acidocroton ekmanii</i> Urban | Cuba (G; SC; Ho) I | I | I | | C W U D |
| <i>Acidocroton trichophyllus</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Andrachne brittonii</i> Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Argythamnia microphylla</i> Pax | Cuba (Camaguey) I | I | I | | C W U D |
| <i>Bernardia venosa</i> Griseb. | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Bonania myrcifolia</i> (Griseb.) Benth. & Hook. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Chaetocarpus humilis</i> (Ekman) Borh. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Cnidioscolus fragrans</i> (H.B.K.) Pohl | Cuba (Ciud. Habana) Ex | Ex | Ex | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| Plant name | Distribution (Cons. status) | 1 | 2 | 3 | Circle: |
|--|-------------------------------------|---|---|---|---------|
| EUPHORBIACEAE (Cont.) | | | | | |
| <i>Cnidoscopus matosii</i> Leon | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Cnidoscopus quinquelobatus</i> (Mill.) Leon | Cuba (Prov. Habana, Ciud. Habana) I | I | I | | C W U D |
| <i>Cnidoscopus rangeli</i> (M.Gomez) McVaugh | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Croton acunae</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Croton clavuliger</i> Muell. Arg. | Cuba (G; SC; Gu) I | I | I | | C W U D |
| <i>Croton corallicola</i> Borh. | Cuba (Granma) I | I | I | | C W U D |
| <i>Croton cycloideus</i> Borh. & Muniz | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Croton excisus</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Croton jaucoensis</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Croton moanus</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Croton nipensis</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Croton pachyrachis</i> Alain | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Croton panduraeformis</i> Muell. Arg. | Cuba E | E | E | | C W U D |
| <i>Croton prostratus</i> Urban | Cuba (VC; SS; SC; Ho) I | I | I | | C W U D |
| <i>Croton subdecumbens</i> Borh. & Muniz | Cuba (Cienfuegos) I | I | I | | C W U D |
| <i>Croton yunquensis</i> Griseb. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Drypetes triplinervia</i> Muell. Arg. | Cuba E | E | E | | C W U D |
| <i>Euphorbia cubensis</i> Boiss. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Euphorbia munizii</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Hyeronima crassistipula</i> Urban | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Lasiocroton gracilis</i> Britton & P.Wilson | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Leucocroton bracteosus</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Leucocroton brittonii</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Leucocroton discolor</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Leucocroton moncadae</i> Borh. | Cuba (H; CH; VC; C) I | I | I | | C W U D |
| <i>Leucocroton pallidus</i> Britton | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Moacroton leonis</i> Croizat | Cuba (Holguin) I | I | I | | C W U D |
| <i>Moacroton revolutus</i> Alain | Cuba (Prov. Habana; Matanzas) V | V | V | | C W U D |
| <i>Moacroton tetramerus</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Pera ovalifolia</i> Urban | Cuba (C; T; Ho) I | I | I | | C W U D |
| <i>Phyllanthus apiculatus</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Phyllanthus cardiophyllus</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Phyllanthus chryseus</i> Howard | Cuba (Holguin) I | I | I | | C W U D |
| <i>Phyllanthus comosus</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Phyllanthus cristalensis</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Phyllanthus echinospermus</i> C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Phyllanthus nanus</i> Millsp. | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Phyllanthus pinosius</i> Urban | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Phyllanthus pulverulentus</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Platygyne leonis</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Victorinia regina</i> (Leon) Leon | Cuba (Guantanamo) R | R | R | | C W U D |
| FLACOURTIACEAE | | | | | |
| <i>Banara acunae</i> Borh. & Muniz | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Banara riscoi</i> Borh. & Muniz | Cuba (I. Juventud) I | I | I | | C W U D |
| <i>Banara wilsoni</i> Alain | Cuba (Las Tunas) I | I | I | | C W U D |
| <i>Lunania dodecandra</i> C.Wright | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Lunania elongata</i> Britton & P.Wilson | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| <i>Lunania sauvallii</i> Griseb. | Cuba (Pinar del Rio) R | R | R | | C W U D |
| <i>Samyda lunana</i> P.Wilson | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Xylosma roigiana</i> Borh. | Cuba (Las Tunas) I | I | I | | C W U D |
| GESNERIACEAE | | | | | |
| <i>Gesneria glandulosa</i> (Griseb.) Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Gesneria gloxinioides</i> (Griseb.) Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Gesneria lindmanii</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Gesneria wrightii</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Pheidonocarpa cubensis</i> (Morton) Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Phinaea pulchella</i> (Griseb.) Morton | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Rhytidophyllum minus</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Rhytidophyllum rhodocalyx</i> Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |

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|---|-------------------------------------|----|----|---|---------|
| GRAMINEAE | | | | | |
| <i>Aristida brittonorum</i> Hitchc. | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| <i>Aristida laevigata</i> Hitchc. & Ekman | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Chloris arenaria</i> Hitchc. & Ekman | Cuba (Pinar del Rio; Cienfuegos) E | E | E | | C W U D |
| <i>Digitaria pinetorum</i> Hitchc. | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| <i>Eragrostis ekmanii</i> Hitchc. | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Lepturidium insulare</i> Hitchc. & Ekman | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Panicum beyeri</i> Hitchc. & Ekman | Cuba (SC; PR; Ho) I | I | I | | C W U D |
| <i>Panicum lacustre</i> Hitchc. & Ekman | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Paspalum acutifolium</i> Leon | Cuba (M; VC; LH) I | I | I | | C W U D |
| <i>Paspalum ampicarpum</i> Ekman | Cuba (Prov. Habana) Ex | Ex | Ex | | C W U D |
| <i>Paspalum edmondi</i> Leon | Cuba (Matanzas; Villa Clara) I | I | I | | C W U D |
| <i>Paspalum insulare</i> Ekman | Cuba (IJ; PR) I | I | I | | C W U D |
| <i>Paspalum wrightii</i> Hitchc. & Chase | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Saugetia pleiostachya</i> Hitchc. & Ekman | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Schizachyrium parvifolium</i> (Hitchc.) Borh. & Catusus | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Triscenia ovina</i> Griseb. | Cuba (Ho; GR; GT) I | I | I | | C W U D |
| HALORAGACEAE | | | | | |
| <i>Myriophyllum sparsiflorum</i> C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| HERNANDIACEAE | | | | | |
| <i>Hernandia cubensis</i> Griseb. | Cuba (Guantanamo) E | E | E | | C W U D |
| HYDROPHYLLACEAE | | | | | |
| <i>Hydrolea cubana</i> (P.Wilson) Alain | Cuba (Camaguey) I | I | I | | C W U D |
| LABIATAE | | | | | |
| <i>Eriope trichopes</i> Epling | Cuba (I. Juventud) I | I | I | | C W U D |
| <i>Hyptis cubensis</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Hyptis pedalis</i> Griseb. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Hyptis rivularis</i> Britton | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Hyptis shafeti</i> Britton | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Micromeria bucheri</i> P.Wilson | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Micromeria suborbicularis</i> (Alain) Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Salvia nigrescens</i> Alain | Cuba (SC; Gu) I | I | I | | C W U D |
| <i>Salvia scabrata</i> Britton & P.Wilson | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Salvia strobilanthes</i> C.Wright | Cuba (Guantanamo) I | I | I | | C W U D |
| LAURACEAE | | | | | |
| <i>Persea acunae</i> Borh. & Imkhan. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Persea nummularia</i> Trel. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Persea shaferi</i> P.Wilson | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| LEGUMINOSAE | | | | | |
| <i>Acacia belairioides</i> Urban | Cuba (Holguin) E | E | E | | C W U D |
| <i>Acacia bucheri</i> Marie-Vict. | Cuba (Holguin; Guantanamo) R | R | R | | C W U D |
| <i>Acacia cowellii</i> (Britton & Rose) Leon | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Acacia cupeyensis</i> Leon | Cuba (Las Tunas; Holguin) E | E | E | | C W U D |
| <i>Acacia curbeloi</i> Leon | Cuba (Las Tunas) E | E | E | | C W U D |
| <i>Acacia daemon</i> Ekman & Urban | Cuba (Ca; LV; Ma; LH) R | R | R | | C W U D |
| <i>Acacia polypyrgigenes</i> Greenman | Cuba (Cienfuegos) I | I | I | | C W U D |
| <i>Acacia roigii</i> Leon | Cuba (Las Tunas) E | E | E | | C W U D |
| <i>Acacia seifriziana</i> Leon | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Acacia zapatensis</i> Urban & Ekman | Cuba (Matanzas) I | I | I | | C W U D |
| <i>Ateleia gummifera</i> D.Dietr. | Cuba (Oriente; Matanzas) R | R | R | | C W U D |
| <i>Ateleia salicifolia</i> Mohl. | Cuba (Ci; VC; SS) I | I | I | | C W U D |
| <i>Behaimia cubensis</i> Griseb. | Cuba (Or; LV; Ma; LH; PR; IJ) R | R | R | | C W U D |
| <i>Behaimia roigii</i> Borh. | Cuba (Matanzas) I | I | I | | C W U D |
| <i>Belairia nipensis</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Belairia parvifolia</i> Britton | Cuba (Granma) I | I | I | | C W U D |
| <i>Bembicidium cubense</i> Rydb. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Caesalpinia guanensis</i> (Britton) Leon | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Caesalpinia hermeliae</i> Leon | Cuba (Holguin) E | E | E | | C W U D |
| <i>Caesalpinia hornei</i> Britton | Cuba (Ciego de Avila) E | E | E | | C W U D |
| <i>Canavalia microserma</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Cassia acunae</i> Borh. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Cassia bucheri</i> (Mold.) Leon | Cuba (Holguin) I | I | I | | C W U D |

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See end for contents of Fields labelled 1 to 3

RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|-------------------------------------|----------|----------|----------|----------------|
| LEGUMINOSAE (Cont.) | | | | | |
| <i>Cassia diffusissima</i> Britton Leon | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Cassia esmeraldensis</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Cassia niqueroensis</i> Urban & Ekman | Cuba (Granma) I | I | I | | C W U D |
| <i>Cassia roigii</i> (Britton) Leon | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Cassia scleroxyla</i> Britton | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Cassia turquinae</i> (Britton) Leon | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| <i>Crotalaria urbaniana</i> Senn | Cuba (Granma) EX | EX | EX | | C W U D |
| <i>Cynometra cubensis</i> A.Rich. | Cuba (Pinar del Rio) R | R | R | | C W U D |
| <i>Erythrina acunae</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Erythrina elenae</i> Howard & Briggs | Cuba (Cienfuegos) I | I | I | | C W U D |
| <i>Galactia acunana</i> Borh. & Muniz | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Galactia heradurensis</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Galactia isopoda</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Galactia jenningsii</i> Britton | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| <i>Harpalyce acunae</i> Borh. & Muniz | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Harpalyce angustiflora</i> Leon & Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Harpalyce baracoensis</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Harpalyce borhidii</i> Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Harpalyce ekmanii</i> Urban | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Harpalyce flexuosa</i> Leon & Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Harpalyce foliosa</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Harpalyce maisiana</i> Leon & Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Harpalyce moana</i> Borh. & Muniz | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Harpalyce toaensis</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Hymenaea torrei</i> Leon | Cuba (Oriente; Camaguey) V | V | V | | C W U D |
| <i>Indigofera cubensis</i> Urban | Cuba (Ciud. Habana; Matanzas) E | E | E | | C W U D |
| <i>Mimosa apleura</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Mimosa catalinae</i> Leon | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Mimosa moaensis</i> Britton & P.Wilson | Cuba (Holguin) I | I | I | | C W U D |
| <i>Notodon cayensis</i> Britton & Wilson | Cuba (Camaguey) I | I | I | | C W U D |
| <i>Pithecellobium savannarum</i> Britton | Cuba (Holguin) I | I | I | | C W U D |
| <i>Sauvallella imarginata</i> (C.Wright) Rydb. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Sophora polyphylla</i> Urban | Cuba (Holguin) V | V | V | | C W U D |
| LOGANIACEAE | | | | | |
| <i>Spigelia ambigua</i> C.Wright | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| LORANTHACEAE | | | | | |
| <i>Dendropemon acutifolius</i> Urban | Cuba (Santiago de Cuba) R | R | R | | C W U D |
| <i>Dendrophthora amoebandra</i> C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Dendrophthora lanceifolia</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Dendrophthora mancinellae</i> (C.Wright) Eichl. | Cuba (Pinar del Rio) V | V | V | | C W U D |
| <i>Dendrophthora picotensis</i> Urban | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Dendrophthora sessilifolia</i> (Griseb.) Krug & Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Phoradendron lapatanum</i> Trel. | Cuba (Matanzas) I | I | I | | C W U D |
| LYTHRACEAE | | | | | |
| <i>Ginoria koehneana</i> Urban | Cuba (Las Tunas; Holguin) I | I | I | | C W U D |
| <i>Ginoria thomasiana</i> Alain | Cuba (Pinar del Rio) I | I | I | | C W U D |
| MAGNOLIACEAE | | | | | |
| <i>Magnolia cacuminicola</i> Bisse | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Magnolia cubensis</i> Urban ssp. <i>acunae</i> Imkhanitskaya | Cuba (Las Villas) E | E | E | | C W U D |
| <i>Talauma orbiculata</i> Britton & P.Wilson | Cuba (Oriente) R | R | R | | C W U D |
| MALPIGHIACEAE | | | | | |
| <i>Bunchosia linearifolia</i> P.Wilson | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Byrsonima moensis</i> Acuna & Roig | Cuba (Holguin) I | I | I | | C W U D |
| <i>Malpighia acunana</i> Borh. & Muniz | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Malpighia wrightiana</i> Acuna & Roig | Cuba (Pinar del Rio) I | I | I | | C W U D |
| MALVACEAE | | | | | |
| <i>Hibiscus eggersii</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Hibiscus urbanii</i> Helwig | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Pavonia callicola</i> (Britton) Ekman | Cuba (Ci; SS) I | I | I | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| Plant name | Distribution (Cons. status) | 1 | 2 | 3 | Circle: |
|---|---------------------------------------|----|----|---|---------|
| MARANTACEAE | | | | | |
| <i>Thalia angustifolia</i> C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| MELASTOMATACEAE | | | | | |
| <i>Calycogonium acunatum</i> Borh. & Muniz | Cuba (Holguin) E | E | E | | C W U D |
| <i>Calycogonium ellipticum</i> C.Wright | Cuba E | E | E | | C W U D |
| <i>Calycogonium microphyllum</i> C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Calycogonium plicatum</i> Griseb. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Calycogonium rubens</i> Borh. | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Calycogonium saxicola</i> Britton & P.Wilson | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Calycogonium susannae</i> Borh. | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Clidemia macrandra</i> (C.Wright) Cogn. | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Henriettea punctata</i> (Griseb.) M.Gomez | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Henriettea squamata</i> (Alain) Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Henriettella granularis</i> Urban | Cuba (Pinar del Rio) R | R | R | | C W U D |
| <i>Miconia acunae</i> Borh. | Cuba (Granma; Santiago de Cuba) E | E | E | | C W U D |
| <i>Miconia cordifolia</i> (Alain) Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Miconia lenticellata</i> Alain | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Miconia perelegans</i> Urban | Cuba (I. Juventud) I | I | I | | C W U D |
| <i>Miconia petersonii</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Miconia remotiflora</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Miconia uninervis</i> Alain | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Mouriri maestralis</i> Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| <i>Ossaea baracoensis</i> Borh. & Muniz | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Ossaea costata</i> Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Ossaea cubana</i> Alain | Cuba E | E | E | | C W U D |
| <i>Ossaea elliptica</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Ossaea filisepala</i> Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Ossaea heterotricha</i> (Griseb.) C.Wright | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Ossaea hypoglauca</i> (C.Wright) M.Gomez | Cuba E | E | E | | C W U D |
| <i>Ossaea micarensis</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Ossaea neurotricha</i> C.Wright | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Ossaea pulchra</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Ossaea wilsoni</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Pachyanthus clementis</i> P.Wilson | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Pachyanthus lunanus</i> Britton & P.Wilson | Cuba (Ci; VC; SS) E | E | E | | C W U D |
| <i>Pachyanthus oleifolius</i> Griseb. | Cuba (SC; Ho; Gu) I | I | I | | C W U D |
| <i>Pachyanthus pedicellatus</i> Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| <i>Pachyanthus tetramerus</i> Urban & Ekman | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Tetrazygia aurea</i> Howard & Briggs | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| <i>Tetrazygia elegans</i> Urban | Cuba (SC; Gu) I | I | I | | C W U D |
| <i>Tetrazygiopsis ekmanii</i> (Urban) Borh. | Cuba (Granma) I | I | I | | C W U D |
| MELIACEAE | | | | | |
| <i>Trichilia pungens</i> Urban | Cuba (Camaguey, Las Tunas, Holguin) V | V | V | | C W U D |
| <i>Trichilia trachyantha</i> (Griseb.) C.DC. | Cuba (Oriente; Las Villas) V | V | V | | C W U D |
| MENISPERMACEAE | | | | | |
| <i>Cissampelos reticulata</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Hyperbaena acutifolia</i> Britton | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Hyperbaena macrophylla</i> Ekman | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Hyperbaena obovata</i> Urban | Cuba (Holguin; Guantanamo) Ex | Ex | Ex | | C W U D |
| <i>Hyperbaena ovata</i> Urban | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| <i>Hyperbaena paucinervis</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| MENYANTHACEAE | | | | | |
| <i>Nymphoides ekmanii</i> (Urban) Alain | Cuba (I. Juventud) E | E | E | | C W U D |
| MORACEAE | | | | | |
| <i>Dorstenia crenulata</i> C.Wright | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Dorstenia ekmanii</i> Urban | Cuba (Cienfuegos; Villa Clara) E | E | E | | C W U D |
| <i>Dorstenia erythrandra</i> C.Wright | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Dorstenia nipensia</i> Urban & Ekman | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Dorstenia nummularia</i> Urban & Ekman | Cuba (Cienfuegos; Villa Clara) E | E | E | | C W U D |
| <i>Dorstenia rocana</i> Britton | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Dorstenia roigii</i> Britton | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Dorstenia tuberosa</i> C.Wright | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Ficus ekmanii</i> Rossb. | Cuba (Santiago de Cuba) I | I | I | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|--------------------------------------|----------|----------|----------|----------------|
| MORACEAE (Cont.) | | | | | |
| <i>Ficus meizonochlamys</i> Rossb. | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| MYRTACEAE | | | | | |
| <i>Calycolpus exisus</i> (Urban) Bisse | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Calycorectes moana</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes acunae</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes albicans</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes anacletoi</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Calyptranthes arenicola</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Calyptranthes baracoensis</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Calyptranthes clementis</i> Britton & Wilson | Cuba (Ci; VC; SS) E | E | E | | C W U D |
| <i>Calyptranthes cristalensis</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes ermitensis</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Calyptranthes exasperata</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes flavo-viridis</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Calyptranthes leonis</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Calyptranthes linearis</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes mayarensis</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes minutiflora</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes munizii</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes pocsiana</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Calyptranthes polyneura</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Calyptranthes pozasiana</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Calyptranthes pseudomoaensis</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Calyptranthes rostrata</i> Griseb. | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Calyptranthes toaensis</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Eugenia acecilillo</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Eugenia acunai</i> Alain | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Eugenia acutissima</i> Urban & Ekman | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Eugenia amblyophylla</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Eugenia anafensis</i> Britton & P.Wilson | Cuba (Prov. Habana) E | E | E | | C W U D |
| <i>Eugenia atricha</i> Urban | Cuba (Prov. Habana; Ciud. Habana) I | I | I | | C W U D |
| <i>Eugenia bayatensis</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Eugenia ceibana</i> Urban | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Eugenia duplicata</i> Britton & P.Wilson | Cuba (Prov. Habana) E | E | E | | C W U D |
| <i>Eugenia eriantha</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Eugenia grifensis</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Eugenia guanensis</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Eugenia ignota</i> Britton & P.Wilson | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Eugenia iteophylla</i> Krug & Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Eugenia libanensis</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Eugenia moensis</i> Britton & P.Wilson | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Eugenia mollifolia</i> Urban | Cuba (Ciud. Habana) I | I | I | | C W U D |
| <i>Eugenia naguana</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Eugenia oligadenia</i> Urban | Cuba (Granma) E | E | E | | C W U D |
| <i>Eugenia peninsularis</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Eugenia petrophila</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Eugenia phyllocardia</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Eugenia pinariensis</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Eugenia pozasia</i> Urban & Ekman | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Eugenia psiloclada</i> Urban | Cuba (Holguin) E | E | E | | C W U D |
| <i>Eugenia pteroclada</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Eugenia rocana</i> Britton & P.Wilson | Cuba (Pinar del Rio; Prov. Habana) I | I | I | | C W U D |
| <i>Eugenia roigii</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Eugenia sebastiani</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Eugenia serrei</i> Urban | Cuba (Prov. Habana; Ciud. Habana) I | I | I | | C W U D |
| <i>Eugenia shaferi</i> Urban | Cuba (Camaguey) I | I | I | | C W U D |
| <i>Eugenia stenoptera</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Eugenia victorini</i> Alain | Cuba (I. Juventud) I | I | I | | C W U D |
| <i>Eugenia woodfrediana</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Krokia cainitoides</i> (Urban) Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| <i>Krokia leonis</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Krokia moaensis</i> (Areces) Borh. & Muniz | Cuba (Holguin) E | E | E | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|-------------------------------------|----------|----------|----------|----------------|
| MYRTACEAE (Cont.) | | | | | |
| <i>Krokiá nipensis</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Krokiá pilotoana</i> (Urban) Borh. | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Mosiera flavicans</i> (Urban & Ekman) | Cuba E | E | E | | C W U D |
| <i>Bisse ssp. pastelillensis</i> (Urban) Bisse | | | | | |
| <i>Mozartia emarginata</i> Mold. | Cuba (Holguin) E | E | E | | C W U D |
| <i>Mozartia maestrensis</i> Urban | Cuba (Oriente) R | R | R | | C W U D |
| <i>Mozartia manacalensis</i> (Urban) Urban | Cuba (Granma; Santiago de Cuba) V | V | V | | C W U D |
| <i>Mozartia oligostemon</i> Urban | Cuba (Cienfuegos; Villa Clara) E | E | E | | C W U D |
| <i>Myrcia borhidii</i> Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Myrtus claraensis</i> (Urban) Bisse | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Myrtus crenulata</i> (Urban & Ekman) Bisse | Cuba (IJ; SS) E | E | E | | C W U D |
| <i>Myrtus del-riscoi</i> Borh. & Muniz | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Myrtus muniziana</i> (Borh.) Borh. | Cuba (Prov. Habana) E | E | E | | C W U D |
| <i>Myrtus nummularioides</i> (Britton & P.Wilson) Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Plinia acunae</i> Borh. & Muniz | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Plinia dermatodes</i> Urban | Cuba (Pinar del Rio) V | V | V | | C W U D |
| <i>Plinia formosa</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Plinia moaensis</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Plinia orthoclada</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Plinia ramosissima</i> (Urban) Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Plinia rubrinervis</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Plinia rupestris</i> Ekman & Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Plinia stenophylla</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Plinia toscanosia</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Psidium celastroides</i> Urban | Cuba (Cienfuegos; Villa Clara) E | E | E | | C W U D |
| <i>Psidium havanense</i> Urban | Cuba (Prov. Habana; Ciud. Habana) E | E | E | | C W U D |
| NYCTAGINACEAE | | | | | |
| <i>Caribea littoralis</i> Alain | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Guapira clarensis</i> Borh. | Cuba (Las Villas) R | R | R | | C W U D |
| <i>Guapira leonis</i> (Standley) Lundell | Cuba (Prov. Habana) E | E | E | | C W U D |
| <i>Neea ekmanii</i> Heimerl | Cuba (Cienfuegos; Villa Clara) E | E | E | | C W U D |
| <i>Pisonia ekmani</i> Heimerl | Cuba (Las Tunas; Holguin) R | R | R | | C W U D |
| OCHNACEAE | | | | | |
| <i>Ouratea alternifolia</i> (A.Rich.) M.Gomez | Cuba (Prov. Habana) Ex | Ex | Ex | | C W U D |
| OLACACEAE | | | | | |
| <i>Schoepfia cubensis</i> Britton & P.Wilson | Cuba (Holguin) I | I | I | | C W U D |
| <i>Schoepfia stenophylla</i> Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| <i>Ximenia roigii</i> Leon | Cuba (Las Tunas) E | E | E | | C W U D |
| OLEACEAE | | | | | |
| <i>Chionanthus acunae</i> (Borh. & Muniz) Borh. | Cuba (Camaguey) I | I | I | | C W U D |
| <i>Chionanthus moncadae</i> (Borh. & Muniz) Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Forestiera ekmanii</i> Borh. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Haenianthus grandifolius</i> Urban | Cuba (G; SC; Gu) I | I | I | | C W U D |
| ONAGRACEAE | | | | | |
| <i>Ludwigia stricta</i> (C.Wright) C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| ORCHIDACEAE | | | | | |
| <i>Dilomilis bissei</i> H.Dietrich | Cuba (Guantanamo) V | V | V | | C W U D |
| <i>Harrisiella uniflora</i> H.Dietrich | Cuba (Santiago de Cuba) V | V | V | | C W U D |
| <i>Lepanthes trichodactyla</i> Lindley | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Lepanthopsis microlepanthes</i> (Griseb.) Ames | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Oncidium usneoides</i> Lindley | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Physinga polygonata</i> (Lindl.) H.Dietrich | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Pleurothallis brachyglottis</i> Reichb. f. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Pleurothallis hymenantha</i> Lindley | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Pleurothallis mucronata</i> Lindley | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Pleurothallis rhomboglossa</i> Reichb. f. | Cuba (Guantanamo) E | E | E | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|---|----------|----------|----------|----------------|
| ORCHIDACEAE (Cont.) | | | | | |
| <i>Pteroglossaspis cristata</i> (Fernald) Rolfe | Cuba (Pinar del Rio) I, Florida I, Georgia (US) I, Louisiana I, Mississippi I, N. Carolina I, S. Carolina I | I | I | ? | C W U D |
| <i>Triphora gentianoides</i> (Sw.) Ames & Schlechter | Cuba (Las Villas) R | R | R | | C W U D |
| OXALIDACEAE | | | | | |
| <i>Oxalis cajalbanensis</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| PALMAE | | | | | |
| <i>Acrocomia pilosa</i> Leon | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Acrocomia subinermis</i> Leon ex L.H.Bailey | Cuba (Ciud. Habana) I | I | I | | C W U D |
| <i>Calyptronoma microcarpa</i> (Leon) A.D.Hawkes | Cuba (Ci; VC; SS) R | R | R | | C W U D |
| <i>Coccothrinax baracoensis</i> Borhidi & Muniz | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Coccothrinax borhidiana</i> Muniz | Cuba (Matanzas) E | E | E | | C W U D |
| <i>Coccothrinax camagueyana</i> Borhidi & Muniz | Cuba (Camaguey) R | R | R | | C W U D |
| <i>Coccothrinax clarensis</i> Leon ssp. <i>brevifolia</i> (Leon) Borhidi & Muniz | Cuba (Sancti Spiritus) R | R | R | | C W U D |
| <i>Coccothrinax crinita</i> Becc. ssp. <i>crinita</i> | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Coccothrinax crinita</i> Becc. ssp. <i>brevicrinis</i> Borhidi & Muniz | Cuba (Cienfuegos; S. Spiritus) R | R | R | | C W U D |
| <i>Coccothrinax fagildei</i> Borhidi & Muniz | Cuba (Santiago de Cuba) R | R | R | | C W U D |
| <i>Coccothrinax nipensis</i> Borhidi & Muniz | Cuba (Holguin) R | R | R | | C W U D |
| <i>Coccothrinax pauciramosa</i> Burret | Cuba (Santiago de Cuba; Oriente) E | E | E | | C W U D |
| <i>Coccothrinax pseudorigida</i> Leon | Cuba (Camaguey) R | R | R | | C W U D |
| <i>Coccothrinax savannarum</i> (Leon) Borhidi & Muniz | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Coccothrinax victorini</i> Leon | Cuba (Granma) E | E | E | | C W U D |
| <i>Coccothrinax yunquensis</i> Borhidi & Muniz | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Colpotherinx wrightii</i> Griseb. & H.Wendl. | Cuba (Pinar del Rio; I. de Pines) V | V | V | | C W U D |
| <i>Copernicia brittonorum</i> Leon | Cuba (PR; M; Ci) R | R | R | | C W U D |
| <i>Copernicia curbeloi</i> Leon | Cuba (Camaguey; Tunas; Holguin) R | R | R | | C W U D |
| <i>Copernicia fallaensis</i> Leon | Cuba (VC; SS; CA; C) R | R | R | | C W U D |
| <i>Copernicia gigas</i> E.L.Ekman ex Burret | Cuba (SS; CA; C; T; G; Ho) R | R | R | | C W U D |
| <i>Copernicia humicola</i> Leon | Cuba (Granma) E | E | E | | C W U D |
| <i>Copernicia longiglossa</i> Leon | Cuba (Las Tunas; Granma) I | I | I | | C W U D |
| <i>Copernicia oxycalyx</i> Burret | Cuba (C; T; G; Ho) I | I | I | | C W U D |
| <i>Copernicia roigii</i> Leon | Cuba (M; T; SC) R | R | R | | C W U D |
| <i>Roystonea regia</i> (H.B. & K.) O.F.Cook var. <i>pinguis</i> L.H.Bailey | Cuba (Guantanamo) R | R | R | | C W U D |
| <i>Roystonea stellata</i> Leon | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Roystonea violacea</i> Leon | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Thrinax compacta</i> (H.Wendl.) Borhidi & Muniz | Cuba (Santiago de Cuba, Holguin) I | I | I | | C W U D |
| <i>Thrinax ekmaniana</i> (Burret) Borhidi & Muniz | Cuba (Vila Clara) E | E | E | | C W U D |
| <i>Thrinax rivularis</i> (Leon) Borhidi & Muniz var. <i>rivularis</i> | Cuba (Guantanamo; Holguin) V | V | V | | C W U D |
| <i>Thrinax rivularis</i> (Leon) Borhidi & Muniz var. <i>savannarum</i> (Leon) Borhidi & Muniz | Cuba (Guantanamo; Holguin) V | V | V | | C W U D |
| PASSIFLORACEAE | | | | | |
| <i>Passiflora dasyadenia</i> Urban | Cuba (La Habana) E | E | E | | C W U D |
| PIPERACEAE | | | | | |
| <i>Peperomia acaulis</i> Alain | Cuba (Ci; SS) R | R | R | | C W U D |
| <i>Peperomia guanensis</i> Trel. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Peperomia mutilata</i> Trel. | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Piper brittonorum</i> Trel. | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Piper cojimaranum</i> Trel. | Cuba (Ciud. Habana) E | E | E | | C W U D |

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|--|-------------------------------------|---|---|---|---------|
| PIPERACEAE (Cont.) | | | | | |
| <i>Piper perditum</i> Trel. | Cuba (Pinar del Rio) R | R | R | | C W U D |
| PODOSTEMACEAE | | | | | |
| <i>Marathrum cubanum</i> C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| POLYGALACEAE | | | | | |
| <i>Polygala brachyptera</i> Griseb. | Cuba E | E | E | | C W U D |
| <i>Polygala rhynchosperma</i> Blake | Cuba (Guantanamo) I | I | I | | C W U D |
| POLYGONACEAE | | | | | |
| <i>Coccoloba acuna</i> Howard | Cuba (Holguin) E | E | E | | C W U D |
| <i>Coccoloba clementis</i> Howard | Cuba (Holguin) E | E | E | | C W U D |
| <i>Coccoloba coriacea</i> A.Rich. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Coccoloba munizii</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Coccoloba retirensis</i> Howard | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Coccoloba toensis</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| PORTULACACEAE | | | | | |
| <i>Portulaca tuberculata</i> Leon | Cuba (Granma) I | I | I | | C W U D |
| QUINACEAE | | | | | |
| <i>Quina ternatiflora</i> C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| RHAMNACEAE | | | | | |
| <i>Auerodendron acunae</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Auerodendron glaucescens</i> Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Auerodendron martii</i> Alain | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Doerpfeldia cubensis</i> (Britton) Urban | Cuba (Oriente; Las Villas) E | E | E | | C W U D |
| <i>Gouania ekmanii</i> Alain | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Reynosia microphylla</i> Urban | Cuba (La Habana) R | R | R | | C W U D |
| <i>Reynosia moaensis</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Rhamnidium brevifolium</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Rhamnidium potrerilloanum</i> Borh. & Muniz | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| <i>Sarcophalus havanensis</i> (Kunth) Griseb. | Cuba (Or; LV; Ma; LH; PR) R | R | R | | C W U D |
| <i>Ziziphus bidens</i> (Urban) M.C.Johnston | Cuba (Guantanamo) I | I | I | | C W U D |
| RUBIACEAE | | | | | |
| <i>Antirhea nipensis</i> Borh. & Muniz | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Antirhea orbicularis</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Antirhea pedicellaris</i> Borh. & Bisse | Cuba (Holguin) I | I | I | | C W U D |
| <i>Casasia acunae</i> Borh. & Fernandez | Cuba (Holguin) E | E | E | | C W U D |
| <i>Catesbaea gamboana</i> Urban | Cuba (Las Tunas; Granma) I | I | I | | C W U D |
| <i>Catesbaea macracantha</i> C.Wright | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Exostema lancifolium</i> Borh. & Acuna | Cuba (Holguin) I | I | I | | C W U D |
| <i>Guettarda amblyophylla</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Guettarda cobrensis</i> Standl. | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Guettarda nervosa</i> Urban & Ekman | Cuba (Ci; SS) E | E | E | | C W U D |
| <i>Guettarda organosia</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Guettarda retusa</i> C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Guettarda roigiana</i> Borh. & Muniz | Cuba (Villa Clara) E | E | E | | C W U D |
| <i>Isidorea elliptica</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Isidorea leonis</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Isidorea microphylla</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Isidorea polyneura</i> (Urban) Aiello | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Isidorea rheediioides</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Machaonia acunae</i> Borh. & Fernandez | Cuba (I. Juventud) I | I | I | | C W U D |
| <i>Machaonia dumosa</i> Borh. & Fernandez | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Machaonia pubescens</i> Borh. & Fernandez | Cuba (Cienfuegos) I | I | I | | C W U D |
| <i>Machaonia tiffina</i> Urban & Ekman | Cuba (SS; CA; C) I | I | I | | C W U D |
| <i>Machaonia urbaniana</i> Standl. | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Machaonia urbinoi</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Mitracarpus acunae</i> Alain | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Mitracarpus depauperatus</i> Britton & P.Wilson | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Mitracarpus scaberulus</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Nodocarpaea radicans</i> A.Gray | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| <i>Phialanthus linearis</i> Alain | Cuba (Holguin) I | I | I | | C W U D |
| <i>Phyllacanthus grisebachianus</i> Hook. f. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Psychotria banaona</i> Urban | Cuba (Sancti Spiritus) E | E | E | | C W U D |

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See end for contents of Fields labelled 1 to 3

RARE AND THREATENED PLANTS OF CUBA

| Plant name | Distribution (Cons. status) | 1 | 2 | 3 | Circle: |
|---|--------------------------------------|----|----|---|---------|
| RUBIACEAE (Cont.) | | | | | |
| <i>Psychotria cathetoneura</i> Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Psychotria ekmanii</i> Urban | Cuba (Granma) E | E | E | | C W U D |
| <i>Psychotria geronensis</i> Urban | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Psychotria greeneana</i> Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Psychotria martii</i> Acuna & Roig | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| <i>Psychotria rivularis</i> Urban | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Psychotria subvelutina</i> Ekman & Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Psychotria torrei</i> Acuna & Roig | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Randia acunae</i> Borh. | Cuba (Camaguey) I | I | I | | C W U D |
| <i>Richardia arenicola</i> (B. & W.) W.Lewis & R.Oliver | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| <i>Richardia ciliata</i> (B. & W.) W.Lewis & R.Oliver | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Rondeletia apiculata</i> Urban | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| <i>Rondeletia bicolor</i> Britton | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Rondeletia diplocalyx</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Rondeletia ekmanii</i> Britton & Standl. | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| <i>Rondeletia gamboana</i> Urban | Cuba (Las Tunas; Granma) E | E | E | | C W U D |
| <i>Rondeletia leonis</i> Britton | Cuba (Ci; SS) E | E | E | | C W U D |
| <i>Rondeletia micarensis</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Rondeletia monantha</i> Urban & Ekman | Cuba (Sancti Spiritus) E | E | E | | C W U D |
| <i>Rondeletia paucinervis</i> Urban & Ekman | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Rondeletia pycnophylla</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Rondeletia rugelii</i> Urban | Cuba (Matanzas) E | E | E | | C W U D |
| <i>Rondeletia ternifolia</i> Urban | Cuba (Ciud. Habana) Ex | Ex | Ex | | C W U D |
| <i>Schmidtottia cucullata</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Schmidtottia marmorata</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Schmidtottia monticola</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Schmidtottia parvifolia</i> Alain | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Schmidtottia scabra</i> Borh. & Acuna | Cuba (Holguin) I | I | I | | C W U D |
| <i>Schmidtottia sessilifolia</i> (Britton) Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Scolosanthus acunae</i> Borh. & Muniz | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Scolosanthus granulatus</i> Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Scolosanthus hirsutus</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Scolosanthus hispidus</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Scolosanthus moanus</i> Borh. & Muniz | Cuba (Holguin) E | E | E | | C W U D |
| <i>Scolosanthus reticulatus</i> Borh. | Cuba (Holguin) I | I | I | | C W U D |
| <i>Scolosanthus strictus</i> Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Scolosanthus wrightianus</i> (Griseb.) C.Wright | Cuba E | E | E | | C W U D |
| <i>Shaferocharis cubensis</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Shaferocharis multiflora</i> Bohr. & Muniz | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Shaferocharis villosa</i> Bohr. & Bisse | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Spermacoce exasperata</i> Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| <i>Spermacoce oligantha</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| RUTACEAE | | | | | |
| <i>Amyris polymorpha</i> Urban | Cuba (Granma) I | I | I | | C W U D |
| <i>Fagara curbeloi</i> (Alain) Kereszty | Cuba (Las Tunas) I | I | I | | C W U D |
| <i>Fagara duplicipunctata</i> (C.Wright) Krug & Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| <i>Fagara leonis</i> (Alain) Kereszty | Cuba (Prov. Habana; Matanzas) Ex | Ex | Ex | | C W U D |
| <i>Galipea ossana</i> DC. | Cuba (Pinar del Rio; Prov.Habana) Ex | Ex | Ex | | C W U D |
| <i>Helietta glaucescens</i> Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Kodalyodendron cubensis</i> Borh. & Acuna | Cuba (Holguin) I | I | I | | C W U D |
| <i>Pilocarpus cubensis</i> (Borh. & Muniz) Lippold | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| <i>Ravenia baracoensis</i> Borh. & Muniz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Ravenia carabiai</i> Kirouac | Cuba (Holguin) I | I | I | | C W U D |
| <i>Spathelia lobulata</i> Urban | Cuba (Santiago de Cuba; Holguin) I | I | I | | C W U D |
| <i>Spathelia splendens</i> Urban | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |

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See end for contents of Fields labelled 1 to 3

RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|--|-------------------------------------|----------|----------|----------|----------------|
| SAPINDACEAE | | | | | |
| <i>Allophylus roigii</i> Lippold | Cuba (Pinar del Rio; I. Juventud) I | I | I | | C W U D |
| <i>Euchorium cubense</i> Ekman & Radlk. | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Sapindus grandifolius</i> Lippold | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Serjania linearifolia</i> Lippold | Cuba (Granma) I | I | I | | C W U D |
| <i>Thouinia acunae</i> Borh. & Muniz | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| SAPOTACEAE | | | | | |
| <i>Bumelia acunae</i> Borh. | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Bumelia revoluta</i> Urban | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| <i>Chrysophyllum claraense</i> Urban | Cuba (Sancti Spiritus) I | I | I | | C W U D |
| SCROPHULARIACEAE | | | | | |
| <i>Amphiolanthus longipes</i> Urban | Cuba (M; Ci; VC) E | E | E | | C W U D |
| <i>Bacopa longipes</i> (Pennell) Standl. | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| <i>Bacopa minuta</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Cheilophyllum dentatum</i> Urban | Cuba (Matanzas; Villa Clara) E | E | E | | C W U D |
| <i>Cheilophyllum micranthum</i> Urban | Cuba (Ciego de Avila; Camaguey) E | E | E | | C W U D |
| <i>Cheilophyllum microphyllum</i> Pennell | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Cheilophyllum sphaerocarpum</i> Urban | Cuba (Villa Clara) I | I | I | | C W U D |
| <i>Hemianthus reflexus</i> C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Lendneria ageratifolia</i> (C.Wright) Pennell | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Lindernia alterniflora</i> (C.Wright) Alain | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| <i>Lindernia multicaulis</i> (Urban) Alain | Cuba (Matanzas; Cienfuegos) I | I | I | | C W U D |
| <i>Micranthemum rotundatum</i> C.Wright | Cuba (Pinar del Rio; I. Juventud) E | E | E | | C W U D |
| SIMAROUBACEAE | | | | | |
| <i>Castela victorinii</i> Acuna & Roig | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Picrasma cubensis</i> Radlk. & Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| SOLANACEAE | | | | | |
| <i>Brunfelsia acunae</i> Hadac | Cuba (Holguin) I | I | I | | C W U D |
| <i>Brunfelsia clarensis</i> Britton & P.Wilson | Cuba (Villa Clara) E | E | E | | C W U D |
| <i>Brunfelsia linearis</i> Ekman | Cuba (SC; Ho; Gu) I | I | I | | C W U D |
| <i>Brunfelsia pluriflora</i> Urban | Cuba (Holguin) I | I | I | | C W U D |
| <i>Cestrum ekmanii</i> Urban & Schulz | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Cestrum moaense</i> Borh. & Muniz | Cuba (Holguin) I | I | I | | C W U D |
| <i>Lycium acnistoides</i> Griseb. | Cuba E | E | E | | C W U D |
| <i>Solanum sagraeanum</i> A.Rich. | Cuba E | E | E | | C W U D |
| STERCULIACEAE | | | | | |
| <i>Ayenia cajalbanensis</i> Alain | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Byttneria microphylla</i> Jacq. | Cuba (Oriente; Pinar del Rio) E | E | E | | C W U D |
| <i>Byttneria scopiura</i> C.Wright | Cuba (PR; SC; Gu) I | I | I | | C W U D |
| <i>Helicteres calcicola</i> Alain | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Melochia manducata</i> C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| <i>Waltheria nipensis</i> (Britton) Alain | Cuba (Holguin) E | E | E | | C W U D |
| SYMPLOCACEAE | | | | | |
| <i>Symplocos cipunimoides</i> Griseb. | Cuba E | E | E | | C W U D |
| <i>Symplocos moaensis</i> Borh. | Cuba (Guantanamo) I | I | I | | C W U D |
| <i>Symplocos ovalis</i> C.Wright | Cuba (Pinar del Rio) I | I | I | | C W U D |
| THEACEAE | | | | | |
| <i>Laplacea curtyana</i> A.Rich | Cuba (PR; IJ) E | E | E | | C W U D |
| THEOPHRASTACEAE | | | | | |
| <i>Jacquinia aciphylla</i> L.Lepper | Cuba (Camaguey) V | V | V | | C W U D |
| <i>Jacquinia acunana</i> Borh. & Muniz | Cuba (Holguin; Guantanamo) R | R | R | | C W U D |
| <i>Jacquinia bissei</i> L.Lepper | Cuba (Santiago de Cuba) V | V | V | | C W U D |
| <i>Jacquinia cristalensis</i> L.Lepper | Cuba (Holguin) R | R | R | | C W U D |
| <i>Jacquinia curtissii</i> Britton | Cuba (I. Juventud) E | E | E | | C W U D |
| <i>Jacquinia juniperifolia</i> L.Lepper | Cuba (Camaguey) V | V | V | | C W U D |
| <i>Jacquinia lippoldii</i> L.Lepper | Cuba (Guantanamo) V | V | V | | C W U D |
| <i>Jacquinia oligantha</i> Borh. | Cuba (Santiago de Cuba, Holguin) E | E | E | | C W U D |
| <i>Jacquinia sessiliflora</i> Alain | Cuba (Santiago de Cuba; Holguin) R | R | R | | C W U D |
| <i>Jacquinia verticillaris</i> Urban | Cuba (Santiago de Cuba) E | E | E | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

| <u>Plant name</u> | <u>Distribution (Cons. status)</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>Circle:</u> |
|---|-------------------------------------|----------|----------|----------|----------------|
| THYMELAEACEAE | | | | | |
| Daphnopsis angustifolia C.Wright | Cuba (Holguin) I | I | I | | C W U D |
| Daphnopsis calcicola Ekman | Cuba (Pinar del Rio) I | I | I | | C W U D |
| TILIACEAE | | | | | |
| Carpodiptera mirabilis Bisse | Cuba (Guantanamo) V | V | V | | C W U D |
| Carpodiptera ophitica Bisse | Cuba (Prov. Habana) I | I | I | | C W U D |
| ULMACEAE | | | | | |
| Trema cubensis Urban | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| UMBELLIFERAE | | | | | |
| Asciadium coronopifolium Griseb. | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Hydrocotyle oligantha Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Hydrocotyle pygmaea C.Wright | Cuba (Pinar del Rio) E | E | E | | C W U D |
| URTICACEAE | | | | | |
| Phenax microphyllus Urban | Cuba E | E | E | | C W U D |
| Pilea ambecarpa Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| Pilea carnosae Britton | Cuba (Granma; Guantanamo) I | I | I | | C W U D |
| Pilea filipes (Griseb.) Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| Pilea gnidioides Griseb. | Cuba (Guantanamo) I | I | I | | C W U D |
| Pilea laciniata Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| Pilea libanensis Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| Pilea loeseneri Urban & Ekman | Cuba (Guantanamo) I | I | I | | C W U D |
| Pilea obtusangula Urban | Cuba (SC; Gu) I | I | I | | C W U D |
| Pilea phaecocarpa Urban | Cuba (Guantanamo) I | I | I | | C W U D |
| Pilea shaferi Britton & P.Wilson | Cuba (Guantanamo) I | I | I | | C W U D |
| Pilea sumideroensis Britton | Cuba (Pinar del Rio) I | I | I | | C W U D |
| VERBENACEAE | | | | | |
| Callicarpa crassinervis Urban | Cuba (Guantanamo) E | E | E | | C W U D |
| Callicarpa floccosa Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Callicarpa leonis Mold. | Cuba (Holguin; Guantanamo) I | I | I | | C W U D |
| Citharexylum ekmanii Mold. | Cuba (Cienfuegos; Villa Clara) I | I | I | | C W U D |
| Citharexylum ternatum Mold. | Cuba (Granma) I | I | I | | C W U D |
| Clerodendrum denticulatum Mold. | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Clerodendrum tuberculatum A.Rich. | Cuba (Cienfuegos) I | I | I | | C W U D |
| Duranta arida Britton & P.Wilson | Cuba (Guantanamo) I | I | I | | C W U D |
| Duranta parviflora Turcz. | Cuba (Santiago de Cuba) E | E | E | | C W U D |
| Duranta wrightii Mold. | Cuba E | E | E | | C W U D |
| Lippia acuminata C.Wright | Cuba (Ci; VC; SS) E | E | E | | C W U D |
| Nashia armata (Urban) Mold. | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Nashia cayensis Britton | Cuba (Camaguey) I | I | I | | C W U D |
| Nashia myrtifolia (Griseb.) Mold. | Cuba E | E | E | | C W U D |
| Nashia nipensis (Urban) Mold. | Cuba (Holguin) I | I | I | | C W U D |
| Nashia variifolia (Urban) Mold. | Cuba (C; LT; Ho) I | I | I | | C W U D |
| Pseudocarpidium shaferi Britton | Cuba (Guantanamo) I | I | I | | C W U D |
| Stachytarpheta subincisa Turcz. | Cuba (?Granma; ?Santiago de Cuba) E | E | E | | C W U D |
| Vitex acunae Borh. & Muniz | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Vitex clementis Britton & P.Wilson | Cuba (Granma; Santiago de Cuba) I | I | I | | C W U D |
| Vitex praetervisa Borh. | Cuba (Granma) I | I | I | | C W U D |
| VITACEAE | | | | | |
| Cissus corallicola Urban | Cuba (Santiago de Cuba) I | I | I | | C W U D |
| Cissus rupicola Urban | Cuba (Pinar del Rio) I | I | I | | C W U D |
| XYRIDACEAE | | | | | |
| Xyris ekmanii Malme | Cuba (Pinar del Rio) E | E | E | | C W U D |
| Xyris intermedia Malme | Cuba (Pinar del Rio) I | I | I | | C W U D |
| Xyris longibracteata Britton & P.Wilson | Cuba (I. Juventud) E | E | E | | C W U D |

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RARE AND THREATENED PLANTS OF CUBA

EXPLANATION OF FIELDS LABELLED 1 TO 3

1. Regional (Caribbean) IUCN Red Data Book category for the degree of threat. Ex: Extinct; E: Endangered; V: Vulnerable; R: Rare; I: Indeterminate; K: Insufficiently known; C: Candidate; ?: no data; nt: neither rare nor threatened.
2. World IUCN Red Data Book category for the degree of threat. Ex: Extinct; E: Endangered; V: Vulnerable; R: Rare; I: Indeterminate; K: Insufficiently known; C: Candidate; ?: no data; nt: neither rare nor threatened.
3. Distribution completeness code. Y: Distribution complete; N: Distribution incomplete; ?: Not known whether distribution complete; Space: Taxon confined to one WCMC area.

