



About the GCC for Ebenaceae

The Global Conservation Consortium for Ebenaceae works to bring together the world's ebony experts, conservationists, and the botanic garden community to ensure that no wild ebony species becomes extinct.

The Global Conservation Consortium (GCC) for Ebenaceae is led by the Missouri Botanical Garden, in collaboration with BGCI and other partners from across the world. The objective of the GCC is to address the conservation needs of this important group. This network of experts seeks to develop and implement a comprehensive conservation strategy, using both ex situ and in situ approaches, supported by a sound taxonomic framework and detailed scientific investigation, to prevent the extinction of the world's ebonies.

The Global Conservation Consortia are coordinated by BGCI. Contact us ggc@bgci.org.





About Ebenaceae

The family Ebenaceae consists of the genera Diospyros, Euclea, Lissocarpa, and Royena, found predominantly throughout the world's tropics and stretching to the temperate regions. The genus Diospyros is by far the most diverse in the family with over 800 species, and is a source of ebony wood, edible persimmons, and medicines.



Many tropical members of the group are heavily exploited for their precious timber, used in high quality furniture and musical instruments. Although many ebonies are listed by CITES a large number of species are poorly known, presenting challenges for sustainable management, regulation, and enforcement of protection measures.



Ebenaceae

Lead Institution

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Ebenaceae

Uses

Diospyros is a source of ebony wood, persimmons, and medicines. The hard, black timber found in tropical members of the genus is used in high quality furniture and musical instruments.

Many of the temperate and subtropical species have been cultivated for their edible fruits, most notably Asian persimmon, *D. kaki*, which is a global commodity worth more than \$2.5 billion USD annually.

Nevertheless, the wild progenitors of these important fruit crops remain understudied and largely unknown.



Threats



Ebenaceae face a variety of threats, including habitat loss, illegal logging, and over-exploitation. There is, however, little information available about the extent of the extinction risk each species is facing, with only a small portion of the species assessed using the Red List criteria of the International Union for Conservation of Nature (IUCN). Among the 477 published assessments, 33 species are Critically Endangered and 16 Data Deficient. Ongoing research has already identified a further 18 Critically Endangered and 17 Data Deficient taxa.



Ebenaceae

Conservation

To address the conservation needs of the genus, the Global Conservation Consortium for Ebenaceae is working to ensure that no wild ebony species becomes extinct. Many species remain poorly known and under-documented, undermining informed conservation actions. It is now vital to gain a more comprehensive understanding of these species and coordinate appropriate ex situ and in situ conservation programs for the most threatened members of the <u>family</u>.



Ebenaceae

Operational

Africa and Madagascar

This region is the second largest centre of diversity for the family, with 338 species, of which c. 262 are in the genus Diospyros. Madagascar alone harbors an estimated 285 species of Diospyros, of which 145 have been published. Illegal logging and habitat loss are the main threats to species in Africa and Madagascar, highlighting the critical need to understand and conserve them, and in particular those species commonly exploited as sources of high-quality ebony wood.

Asia

Two genera are found in Asia: Diospyros, has its main centre of diversity in Asia, with over 360 species, mostly in Southeast Asia; and Euclea, a predominantly African genus that just reaches the Arabian Peninsula at the eastern edge of one species' distribution. The main threats faced by species in Asia are mining, forest clearing for plantations (oil palms, coffee, tea, and other cash crops), and climate change. Taxonomic and floristic research programs are ongoing.

North and Central America

Diversity of Ebenaceae is lower in North and Central America than the other regions, with only 24 species of Diospyros documented, although these regions are home to two of the species known for their edible fruits (D. virginiana and D. digyna). Diospyros virginiana in particular is of interest for breeders and crop development, thus predicating the need for genetically informed ex situ collections to support its conservation and development of new cultivars.

South America

Currently, 100-150 species of Diospyros are known to occur in South America, the region with the greatest species diversity in the western hemisphere. In addition, the regionally endemic genus Lissocarpa, with eight species. The rapid and expanding conversion of forest to agricultural and grazing lands in South America represents a major threat to many of these species, and it is thus critical to study and protect wild populations as well as develop in-country ex situ populations of priority species.

Pacific

Around 60 species are reported in the Pacific region, whose center of diversity lies on New Caledonia. Important threats include habitat fragmentation, bush fires, and invasive plant and animal species. Climate change probably affects this area more than elsewhere, with entire islands facing the prospect of succumbing to sea level rise and the consequent loss or displacement of entire communities. A comprehensive ex situ program is necessary to preserve the biological heritage of the Pacific nations.