

CHINESE MAGNOLIA

COMMON NAME

Magnolia sinica

SCIENTIFIC NAME

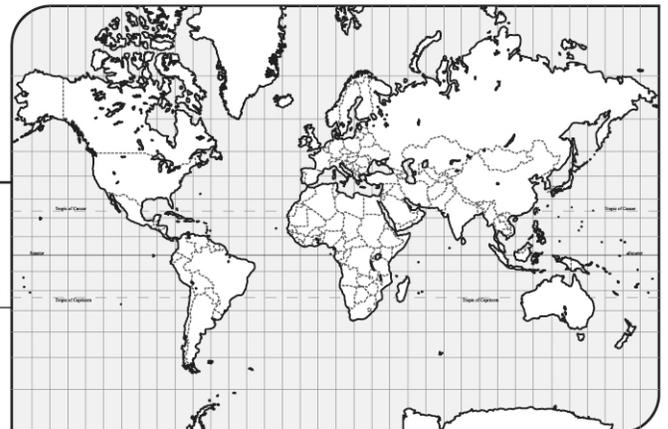


Photo Credit: Jackson Xu, Flora & Fauna International

Importance

What does critically endangered mean? For the Chinese magnolia, it means fewer than 100 mature trees. All of them grow in southeast China, making this one of the world's most endangered magnolias. Also known as *Manglietia sinica* and *Manglietiastrum sinicum*, and commonly called *hua gai mu* in China, this tree is an important ornamental due to its fragrant, showy flowers and shiny, attractive leaves.

Magnolias such as *Magnolia sinica* are among the oldest flowering trees in existence, so ancient they evolved before bees. Southern China is a major center of diversity for magnolias, and *M. sinica* is just one of 31 critically endangered species from China listed as threatened. Understanding and preserving the diversity of magnolias could provide important insights into the evolution of flowering plants.



Magnolia Family (*Magnoliaceae*)

FAMILY

Critically Endangered

RED LIST CATEGORY

Description

Form: *M. sinica* trees have been found up to 130 feet (40 m) tall on a notably straight. The trunk is somewhat buttressed at the base and can grow up to 4 feet (1.2 m) in diameter.

Leaf: Leaves are narrow and oval shaped, with a pointed tip. They are a deep, shining green above, and pale green beneath.

Flower: One of the chief diagnostic characteristics of this tree is the terminal flowers with 9 tepals arranged in three whorls. (The term “tepals” describes the structure or outer perianth of the flower, which is not differentiated into petals and sepals. Similar to the structure found in tulips, flowers composed of tepals rather than petals and sepals are characteristic of magnolias.) The flowers of this species have approximately 65 stamens and 13 to 16 carpels, with more than two ovules in each carpel; another distinguishing characteristic of the species.

Fruit: The fruits proceed through green to slightly flushed to a dry brown capsule. They are oval shaped and tend to be 2 to 3.5 inches (5 to 8.5 cm) long and 1 to 2.5 inches (3.5 to 6.5 cm) wide, with 1 to 3 seeds in each carpel or chamber in the fruit.

Bark & Twigs: The bark of *M. sinica* is gray and has fine longitudinal fissures.

Habitat and Ecology

This magnificent tree is confined to a small area in southeastern Yunnan Province of Southern China. In the wild, the species is known only from Wenshan Xiaoqiaogou National Nature Reserve, and the surrounding area in Yunnan. Surveys in 2005

found only 10 wild trees on slopes of evergreen broadleaf rainforest between 4200 to 5000 feet (1300 to 1550 meters) elevation in southeast Yunnan. Further searching has revealed only an additional 91 trees – all of which are found in the Wenshan Xiaoqiaogou National Nature Reserve and in the area around the reserve. Fortunately, this tree is also present in cultivation.

Threats

Why is the Chinese magnolia so heavily endangered? Logging and over-harvesting of this tree have decimated populations and forest clearing for agriculture has reduced the available places for this tree to grow. The tree has poor natural regeneration, and no effective protective measures are in place to preserve its only known native range. With such a tiny natural population, any changes to the habitat or climate, or a new pest threat, could wipe out the existing population. Unless action is taken to protect this species, the future survival of the Chinese magnolia does not look promising.

Conservation Action

Currently, there is an intensive scientific effort to grow this tree in nurseries and replant wild populations. Several thousand saplings growing in nurseries could offer a chance to decrease this beautiful tree’s chances of extinction. Kunming Institute of Botany in China is currently leading conservation initiatives to protect this tree. Protection of the Wenshan Forestry reserve, which is home to the last remaining trees, will also be of key importance in reestablishment of this species. If you’d like to take action to protect this critically endangered species, you can help support the Global Trees Campaign, which has been working to plant nursery-grown

Chinese magnolias in the wild and to protect Wenshan Forestry Reserve.

References

Chen, B.L. and H.P. Nootboom. 1993. *Manglietia sinica* (Y.W. Law) B.L. Chen & Noot. Annals of the Missouri Botanical Garden 80(4): 1051.

Global Trees Campaign. 2008. Global Trees Campaign – *Magnolia sinica* tree profile. (http://www.globaltrees.org/tp_magnolia_sini_ca.htm, 30 March 2011).

Fauna & Flora International. 2011. Key Species. About: *Magnolia sinica*. (<http://www.fauna-flora.org/species/magnolia-sinica/>, 30 March 2011).

Missouri Botanical Garden. 2011. *Magnolia sinica*. In: Tropicos. (<http://www.tropicos.org/Name/19300429>, 31 Mar 2011).