

# MAGNOLIA

COMMON NAME



## *Magnolia officinalis*

SCIENTIFIC NAME

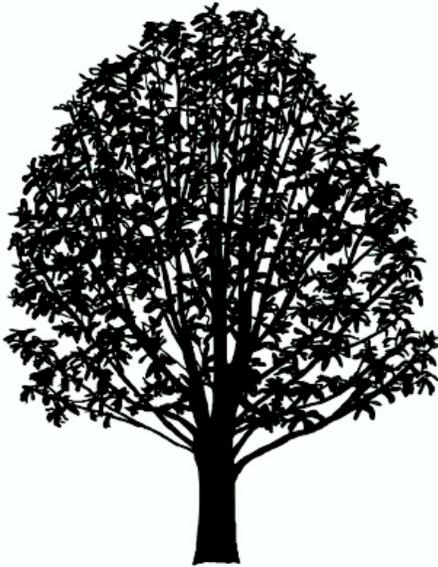
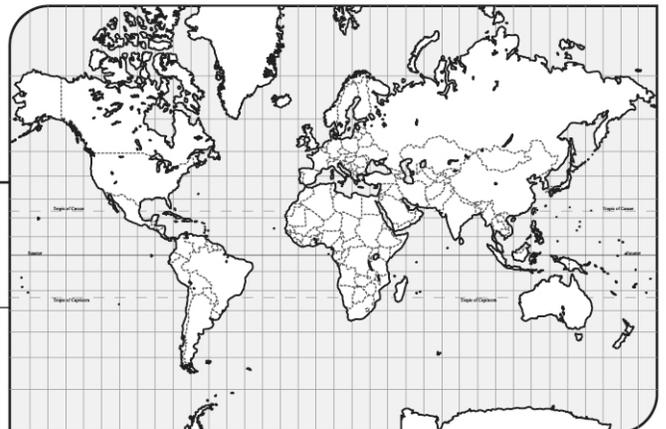


Photo Credit: Wendy L. Cutler

### Importance

While people all over the world enjoy the beautiful flowers of cultivated magnolias in spring, 131 of all 245 known magnolia tree species are under threat of disappearing. That's more than half of all magnolia species.

In one species, *Magnolia officinalis*, demand for the bark in traditional Chinese medicine is so high that most of its wild population has been wiped out. The tree is sometimes called the Houpa magnolia, based on the medicinal name for the bark, which is sometimes known as "Hou Po" or "houpo." Active ingredients extracted from bark are reputed to have anti-tumour and anti-inflammatory properties. In use since 100 A.D., this drug also exhibits antidepressant-like effects, has been used to control stress and anxiety, treat coughs and colds, and reduce allergy symptoms. Harvard botanist Lily Perry described the drug extracted from the bark as "bitter, pungent, and warming" (qtd in Forrest, 1995). Herbal practitioners may also prescribe magnolia flower buds to improve digestion and ease menstrual cramps.



### Magnolia Family (*Magnoliaceae*)

FAMILY

### Near Threatened

RED LIST CATEGORY

Harvesting of *M. officinalis* bark is extremely destructive. In May, harvesters cut down twenty year old trees, and strip the bark from the roots, trunks, and branches. They dry the bark first in the shade and then in sun, then steam it, roll it into tubes, and sort it according to the part of the trunk from which it comes. Houpo is toxic in large quantities, and is nearly always prescribed with other herbs.

## Description

**Form:** This is an erect or spreading tree with an oval form and a high canopy. It has a growth rate of 24 inches per season, and will reach a height of 45 to 50 feet (12 to 15 m) in full sun and well drained soil.

**Leaf:** This deciduous tree has medium green leaves that are oblong and broader at the tip, up to 18 inches (45 cm) long and 4 to 8 inches (11 to 20 cm) broad. The foliage turns bronze or gold in the fall.

**Flower:** The cream or white flowers appear in the spring and are showy and fragrant. They can be as large as 12 inches in diameter and have 9 to 12 (rarely to 17) tepals. The flowers will litter the ground around the tree as the petals fall.

**Fruit:** The fruit is a very large and rounded red follicle (over 3 inches or 7 cm), appearing in fall.

**Bark & Twigs:** Thick, smooth, grey-brown bark, may fissure at the base of the tree.

## Habitat and Ecology

While this tree may look tropical, *M. officinalis* is actually found in the temperate mountains and valleys of China. This tree is endemic to China, and is widely distributed in Anhui, Fujian, Gansu, Guangdong, Guangxi,

Guizhou, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, and Zhejiang provinces. It generally occurs in broadleaved deciduous forest in elevations from 900 up to 6,500 feet (274 to 2,000 m). This tree takes some time to establish, and generally blooms at approximately 15 years of age.

*M. officinalis* grows best in USDA hardiness zones 5 through 7, and prefers moist, well drained soil in full sun to partial shade environments. It can grow in clay, loam, or sandy soils that are highly acidic to neutral. The tree is susceptible to aphids, scales, and spider mites, and has a natural lifespan of 50 to 150 years.

This species has been plagued by taxonomic confusion since its original collection in Hubei province by Augustine Henry in 1885. It is nearly identical to the closely related Japanese species, *Magnolia hypoleuca*, and was identified as such until 1913 when E.H. Wilson and Alfred Rehder examined specimens they had collected in Hubei six years earlier. They gave the plant its specific epithet *officinalis*, latin for “of the shops,” signifying its medical importance. While they identified a variety, *Magnolia officinalis* var. *biloba*, which is distinguished from the type variety by the deep notches at the leaf apices and slight variations in native range, the differences between the two forms are not thought to be sufficient for taxonomic distinction.

## Threats

The rate of decline and deforestation in China’s forests and the intense levels of bark-stripping of this tree for medicinal purposes have led to the species becoming rare outside cultivation. Most of the wild population has been destroyed by overharvesting of the valuable bark.

## Conservation action:

We are only beginning to understand the magnolia's medical potential. Losing magnolia species will impact global medicine—and beauty. Conservation of this species will depend on acquiring germplasm - collecting seeds and plants for cultivation *ex-situ* or outside of the tree's natural habitat - from the documented wild populations of *M. officinalis*. To help protect this tree for the future, you could support the Global Trees Campaign, a project working to boost conservation efforts for threatened magnolias.

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## References

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