Magnolia omeiensis

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Other Names: Parakmeria omeiensis
Family: Magnoliaceae
Natural Range: China

IUCN Conservation Status

Critically Endangered (CR)

With their porcelain-like flowers and attractive foliage, magnolias in many ways seem made for the well-manicured parks and landscaped gardens in which they've become so popular. So it might surprise you to learn that this magnolia lives out its life clinging to the edges of cliffs, halfway up a mountain.

Magnolia omeiensis is found on Mount Emei in China's Sichuan province, and like other *Magnolia* species, its foliage and striking flowers give it huge horticultural potential. However, at the moment this tree really is living life on the edge, with just 74 individuals remaining in a 1910 km2 of temperate forest on Mount Emei. That's an area about one-sixth of the size of Sichuan's capital city, Chengdu. Its forest range is intensively logged, and although *Magnolia omeiensis* is endemic to the region, there are currently no special protection measures in place to ensure that its population remains intact.

As well as the threats posed by logging, *Magnolia omeiensis* is showing signs of limited natural regeneration, partly as a result of its tiny population size. Research carried out by Emeishan Botanic Garden has also found that the remaining trees are producing inviable pollen, and male and female parts of flowers are not developing in synchrony. A decline in pollinating insects is also contributing to the species' reduced reproductive capacity.

In response to these threats, GTC and a host of in-country partners have recently begun a project to pull *Magnolia omeiensis* back from the edge of existence. 1,100 seedlings already exist in *ex situ* collections, and so efforts are currently focused on increasing the value of these collections for conservation and for reinforcing wild populations. Research carried out into

the species' genetic diversity will inform further development of the *ex situ* collections and selection of seedlings for wild population reinforcement programmes.

As well as reinforcing populations of *Magnolia omeiensis in situ* and *ex situ*, the project also aims to address the species' limited reproductive capacity – one of the root causes of its current decline. Botanists plan to carry out *in situ* artificial pollination trials, manually transferring pollen between wild trees in a bid to boost the species' seed production and germination rates. This approach has already proved successful in another GTC project focused on the Ziyuan fir (*Abies ziyuanensis*). With intensive efforts to build populations of *Magnolia omeiensis* both *in situ* and *ex situ*, GTC and its partners are laying the foundations that will enable this species to regain a foothold in its mountain habitat, and to continue to thrive living life out on the edge.

The Global Trees Campaign was a partnership between Fauna & Flora International and Botanic Gardens Conservation International.