Integrated conservation of threatened tree species—A case from *Magnolia* omeiensis

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Magnolia omeiensis is an evergreen tree species endemic to Southwest China. Currently, only 74 individuals are found in the wild, and the species is listed as Critically Endangered on the IUCN Red List. Magnolia omeiensis is severely threatened by the fragmentation of habitat, low fruit-set rate, and human and monkey disturbance. In an attempt to save this species from extinction, Botanic Gardens Conservation International (BGCI) has funded the integrated conservation of Magnolia omeiensis during 2016–2020, including further field surveys, propagation, ex situ conservation, in situ conservation, reintroduction, technical training and public education activities. Through a five-year implementation plan, we have achieved excellent results, which include (i) raising 2200 saplings by sowing and grafting with two authorized patented methods, (ii) conserving 211 saplings at eight botanical gardens in China, and (iii) planting of about 900 saplings in protected sites, of which 829 individuals survived. In addition, about 20 technicians and local villagers were trained, and about 400 students were involved in our educational activities. When the BGCI funding ended in 2020, we secured additional funding from the local government to continue with the conservation efforts that include further surveillance of wild populations to be carried out, propagation, cultivation, management and monitoring of plants in ex situ conservation areas and protected sites. Between 2021–2023, (i) two new populations with 16 individuals of this species in the wild were found, (ii) raised about 1000 additional saplings, and (iii) established seven new ex situ collections of the species at seven botanical gardens and institutes in China, adding 179 saplings with the survival rate reaching 85%. We have encountered numerous challenges and good experiences since the inception of this project, which will be shared in the poster presentation.

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