

Integrated conservation of *Magnolia sinica*, a typical model for threatened Magnoliaceae species

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Plant species with extremely small populations (PSESP) represents a group that urgently needs intervention for rescue and protection, with the first task being to reduce its high extinction risk and alleviate its survival pressure. The family Magnoliaceae is one of the most highly threatened angiosperm groups in the world, with about 50% of species being threatened. Known as the “giant panda” of the plant kingdom, *Magnolia sinica* or *huagaimu*, a highly threatened flagship species of Magnoliaceae and a typical PSESP, is studied. In the past 30 years, various studies have been carried out on the species, especially from the Kunming Botanical Garden, in which extensive conservation research programmes mainly focus on comprehensive population surveys, seed collection and breeding, conservation actions (*in-situ* and *ex-situ* conservation, reintroduction, etc) in all aspects, and extensive research targeting reproductive and seed biology, genetic diversity, soil microorganism, chromosome-scale and chloroplast genome sequence, etc, were carried out. *Huagaimu* has provided us with a novel and comprehensive conservation strategy for rescuing and protecting PSESP, combining rescue protection and systematic research. At the 8th Global Botanic Gardens Congress, we highlight *Huagaimu* as a successful conservation story, and we hope that other potential PSESPs can receive such integrated conservation efforts.