

Although releasing confiscated species into their natural habitats is potentially important for species conservation, releasing wild animals beyond their natural range is a complex undertaking that requires careful consideration and scientific support, without which release may not only fail to achieve the desired results but also harm the local ecosystem. In China *M. javanica* is native only in Menglian and Menghai counties, Yunnan Province (Wu et al., 2005, *Acta Zootaxonomica Sinica*, 30, 440–443). Most pangolins confiscated in China have been transported outside their range, from other regions or countries.

We believe that *M. javanica* should not be released into most regions of China, for the following reasons: (1) Most regions have a markedly different climate from that of the species' natural range, and pangolins have poor adaptability, impeding their survival outside their natural range (Wu et al., 2004, *Chinese Journal of Applied and Environmental Biology*, 10, 456–461). (2) *M. javanica* is a *K*-strategist, and thus the establishment of a sustainable population through the release of a few individuals outside their natural range is unlikely. (3) The species often carries multiple parasites or pathogens (Yang et al., 2010, *Journal of Economic Animal* [sic], 14, 22–25; Zhang et al., 2017, *Zoo Biology*, 36, 387–396) and therefore release into new areas carries the potential risk of introducing parasites or pathogens. (4) As an alien species *M. javanica* may have adverse effects on local ecosystems through predation of, or competition with, native species such as *Manis pentadactyla* (Wu et al., 2005, *Acta Zootaxonomica Sinica*, 30, 440–443). (5) As the original source of confiscated pangolins is generally unknown, individuals may be released outside their source area, with the potential for genetic contamination of native populations.

Several Chinese institutions have made progress in conservation breeding research using confiscated *M. javanica*. The species survives well in captivity, and dozens of individuals have successfully mated and reproduced (Zhang et al., 2015, *Folia Zoologica*, 64, 129–135; 2017, *Zoo Biology*, 36, 387–396). We recommend that the Chinese government establishes a pangolin rescue and breeding center for this rare species. Meanwhile, rescued individuals could be used to conduct conservation and biological research and to establish an ex situ population. In the future an ex situ population could be used for restoration of the wild population within its natural range.

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Discovery of a wild population of *Orchidantha yunnanensis* in south-east Yunnan, China

The plant *Orchidantha yunnanensis* P. Zou, C.F. Xiao & Škorničk of the family Lowiaceae was described based on living plants in Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, in 2017. The living plants were originally identified as *Orchidantha chinensis* T.L. Wu, collected from Malipo county in south-east Yunnan province in 2001. However, the authors recognized that the cultivated plants were not *O. chinensis* and they were therefore described as *O. yunnanensis* (P. Zou et al., 2017, *Phytotaxa*, 302, 181–187). *Orchidantha yunnanensis* was thought to be extinct in the wild because no living plants were discovered during resurveys in the location of the original collection. The species may have been overcollected for medicinal uses.

During April 2018–March 2019 surveys were carried out in south-east Yunnan with the joint support of China's National Science and Technology Basic Resources Investigation Programme for Surveys and Germplasm Conservation of Plant Species with Extremely Small Populations in South-west China (grant no. 2017FY100100). Fifteen clumps of *O. yunnanensis* were discovered in one locality in Hekou Yao Autonomous County, c. 200 km from the original collection site. With such a small population size and with poor natural regeneration, *O. yunnanensis* needs to be categorized as a Plant Species with an Extremely Small Population (W. Sun et al., 2019, *Trends in Plant Science*, 24, 4–6). In April 2018 we collected vegetative material for propagation and ex situ cultivation in Kunming Botanical Garden; several plants have been successfully propagated and are growing well in a greenhouse.

Our survey, and information obtained from local people, indicated that the main threats to this species are habitat degradation and poor fruiting. The single known location of *O. yunnanensis* is not within a protected area. As the population is facing a high risk of extinction, protection of the known individuals and their habitat is critical, and research is also required on the reproductive biology and poor fruiting of the species. Yunnan Key Laboratory for Integrative Conservation of Plant Species with Extremely Small Populations and South China Botanical Garden, Chinese Academy of Sciences, are now cooperating to study these matters. Further surveys for the species are also required in the karst region of south-east Yunnan and the adjacent area of northern Viet Nam.

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