

# Conservation news

## Conserving *Firmiana major*, a tree species endemic to China

*Firmiana major* is a deciduous tree endemic to the hot arid valley of the Jinsha River in Yunnan and Sichuan Provinces, China, where the climate supports few trees species and environmental degradation is severe. Of the seven *Firmiana* species in China five are endemic, and *F. major* was recognized as a class II protected species in the first edition of the National Key Protected Wild Plants List of China (1984). The China Plant Red Data Book (1991) reported that as a result of habitat destruction caused by development, wild individuals of *F. major* were difficult to find, although c. 30 individuals were conserved at Kunming Botanical Garden, Kunming Black Dragon Pond Park, and two temples around Kunming in Yunnan province. In 1998 the IUCN Red List categorized *F. major* as Extinct in the Wild. The species was omitted in the second, current edition of the National Key Protected Wild Plants List of China (1999).

In 2004, however, 200 individuals were found in the National Nature Reserve of *Cycas panzhihuaensis* in Sichuan Province. Zhixiang Yu managed to grow *F. major* seedlings, and expanded the natural population by reintroduction. In 2012 China launched an emergency rescue plan for 120 Plant Species with Extremely Small Populations, including *Firmiana kwangsiensis* and *Firmiana danxiaensis*, and Yunnan and Sichuan provinces introduced provincial lists of Species with Extremely Small Populations, but *F. major* was not included on these lists.

In July 2017, funded by the National Key Programme Survey and Germplasm Conservation of Plant Species with Extremely Small Populations in South-west China (grant number 2017FY100100), we found two fruiting populations of *F. major* in Yunnan province, growing on the cliffs of the Jinsha River valley. We found c. 1,000 individuals in Lijiang City and < 50 individuals in Yuanmou County. The cliffs have protected these populations from logging, farming, and grazing but there is still human disturbance, including the construction of a rural road through the Lijiang population and frequent use of the seeds from the Yuanmou population, for edible oil.

The rediscovery of these populations is significant because this species has potential for use in restoration projects of arid river valleys. Shortly after the rediscovery the story was picked up by Chinese media outlets (including China Central Television), leading to the resurveying of the population by the Forestry Department of Yunnan Province and local forestry bureaus, who discussed protection plans. We recommend that this species should now be included in the national and provincial level lists of Plant Species with Extremely Small Populations, to help promote

conservation of the species. We continue our investigation of *F. major* and have successfully cultured the seed embryos in Kunming Botanical Garden.

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## Urgent action required to conserve the Critically Endangered Asiatic cheetah *Acinonyx jubatus venaticus*

The Critically Endangered Asiatic cheetah *Acinonyx jubatus venaticus* is now restricted to Iran, where fewer than 50 remain (*Proceedings of the National Academy of Sciences of the United States of America*, 2017, 114, 528–533). This could be the next felid to go extinct (*Cat News*, 2017, 66, 3). Since 2001 efforts to conserve the Asiatic cheetah have been spearheaded by the Conservation of the Asiatic Cheetah Project, managed by Iran's Department of the Environment in conjunction with the United Nations Development Programme (UNDP) and other organizations. The future of this project is now, however, in doubt.

The UNDP recently indicated it was withdrawing from the Conservation of the Asiatic Cheetah Project, leaving it with the Department of the Environment (*Nature*, 2017, 552, 31). The new head of the Department, however, announced in his first press conference that the Asiatic cheetah is doomed to extinction because of its declining population, and that cheetah conservation is no longer a priority for the Department. This does not bode well for this subspecies, and it is extraordinary that the agency entrusted with its protection appears to have accepted the likelihood of its demise so readily.

A new issue that could contribute to further decline of the Asiatic cheetah is trafficking. On 25 December 2017, in a joint operation between the Iranian Police and the Department of the Environment, an 8-month old female Asiatic cheetah cub was discovered in a house in Tehran (<https://www.mehrnews.com/news/4182638/>; in Farsi). To prevent future trafficking of the Asiatic cheetah we suggest the Department takes the following steps to improve the security of the protected areas inhabited by cheetahs: (1) increase the number of wildlife rangers (<http://www.icana.ir/Fa/News/309266/>; in Farsi); (2) establish ranger stations in each of the districts inhabited by the Asiatic cheetah; (3) ensure that rangers have the equipment, fuel and training they need to work effectively (<http://www.donya-e-eqtesad.com/>