

# Conservation News

## Finding *Staphylea shweliensis*, a long-lost Critically Endangered plant species of China

*Staphylea shweliensis* W.W. Smith, a tree species of the family Staphyleaceae, is endemic to the southern Hengduan Mountains in south-west China. It was categorized as Critically Endangered on the Red List of China's Higher Plants in 2020. This species had only been collected once, in 1917, by George Forrest and was described by William Wright Smith in 1921. According to the single type collection (George Forrest 15800) stored at the herbaria of the Royal Botanic Garden Edinburgh (E, holotype, barcode 00120662; E, isotype, barcode 00120663), this species is only known from the Shweli–Salween divide, an area of c. 400,000 ha in western Yunnan. Surveys close to the type locations and adjacent areas (the Qinghai–Tibet Plateau Expedition in 1982, Gaoligongshan Biodiversity Survey in 1998–2007, and Biluoxueshan Biodiversity Survey in 2010–2019) were not able to relocate the species.

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individuals in fruit were discovered in two sites in evergreen broad-leaved forests at 2,380 m altitude. The total area of occupancy of the species is c. 3 km<sup>2</sup>, indicating it should be categorized as Critically Endangered on the IUCN Red List on the basis of criterion B2ab(i,ii,iii,v). Because of its restricted distribution, small population size and degradation of its habitat, the species should be included in the list of Plant Species with Extremely Small Populations in China. Our survey and information obtained from interviews with people local to the area indicated that the main threats to this species are its small population size, destruction by people and road construction (and hence habitat loss). Urgent measures need to be taken to protect this species.

The Kunming Institute of Botany is now carrying out studies on the population genetics of *S. shweliensis* and its genetic relationships with other Chinese *Staphylea* species. In collaboration with staff of nature reserves, we are also planning to collect seeds of *S. shweliensis* for propagation and future restoration. Using species distribution models, we plan to identify and explore other sites where the species could potentially grow.

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