

As anthropogenic disturbance and habitat degradation are the main threats to this camellia, one of the most urgent conservation actions is to protect the three populations from collection and habitat destruction. In addition, further ex situ conservation, population reinforcement and population restoration programmes are needed.

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First recorded bloom of the Critically Endangered ironwood *Ostrya rehderiana* in Kunming Botanical Garden



In March 2024, the Critically Endangered ironwood tree *Ostrya rehderiana* (family Betulaceae) blossomed for the first time in Kunming Botanical Garden, China. This tree was originally transplanted from the Hangzhou Botanical Garden in 1990. Its natural habitat is Tianmu Mountain, Hangzhou City, Zhejiang Province. Since its description in 1927, only a single remaining wild population of five mature individuals is known, a consequence of extensive and long-term anthropogenic disturbance. It is designated as a Class I Protected Wild Plant Species in China and is included in the national conservation initiative for Plant Species with Extremely Small Populations.

Comparative research of *O. rehderiana* and its more widely distributed relative, *Ostrya chinensis*, indicates that the effective population size of *O. rehderiana* has declined over the past 10,000 years, with an accumulation of deleterious mutations. On the brink of extinction, the remaining wild population is safeguarded within a nature reserve. Conservation efforts, including pollination management, seed collection, germination, ex situ conservation and in vitro cultivation, have been implemented for over 4 decades. More than 3,000 seedlings have been propagated, and eight ex situ conservation sites have been established across China.

In Kunming Botanical Garden, *O. rehderiana*, influenced by Kunming's cold climate and high altitude, has a slow growth rate. The tree is 8.42 m tall and has a diameter at breast height of 9.8 cm. Its crown measures 7.5 × 4.8 m. Despite the tree taking approximately 30 years to bloom—a significantly delayed development—the event is unprecedented and is significant for botanical records.



The Critically Endangered ironwood tree *Ostrya rehderiana* blossoming for the first time in Kunming Botanical Garden, China, in March 2024. Photo: Lian Tao.

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Potential evidence of the Critically Endangered Arabian leopard in southern Saudi Arabia

The Critically Endangered Arabian leopard subspecies *Panthera pardus nimr* is endemic to the Arabian Peninsula. Until the early 20th century, leopards were widespread across the north-western and south-western mountains of Saudi Arabia. However, in the last 100 years the subspecies has been driven to the verge of



Possible Arabian leopard scrape mark found on 23 October 2023 in southern Saudi Arabia. Photo: Hadi Al Hikmani.

extinction in the country as a result of persecution, habitat fragmentation and loss of prey species.

The national action plan for the Arabian leopard considered the population to number 50 individuals, in the Sarawat and Hijaz mountains (Islam et al., 2017, *Cat News*, 66, 14–17), but a 2020–2022 camera trap study across most of the leopard's historical range in Saudi Arabia found no evidence of its occurrence (Dunford et al., 2023, *Oryx*, 58, 351–362). However, this study did not include the mountainous areas along the Saudi–Yemen border. In October 2023, we installed 14 camera traps in 200 km² of the mountainous border area. The camera traps did not detect the leopard, but we found four potential leopard scrape markings 4–8 km from the border. Three of the scrapes were along a wadi trail in soft soil at 1,380 m elevation and the fourth was in a cave at 1,525 m. Leopards are known to scrape the ground with their hind paws to mark their territories. In Oman, leopards commonly leave their signs in soft substrates, including in caves and overhangs. The length and width of the four scrapes were 18–28 and 10–24 cm, respectively, similar to records of leopard scrapes in Iran and Oman (Ghoddousi et al., 2008, *Zoology in the Middle East*, 44, 101–103).

These scrapes are potential evidence of current Arabian leopard occurrence in southern Saudi Arabia. There are recent unconfirmed reports of leopards along the border area, and the mountains where we found the scrapes extend into the mountains of Yemen. Thus, it is likely that the scrapes were from dispersing leopards. We recommend extensive camera-trap surveys along the border area to ascertain whether the leopard is extant in the region, and thus help conservation authorities in Saudi Arabia plan for the protection of any remaining leopards in the country.

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23rd Sharjah International Conservation Forum for Arabia's biodiversity

The 23rd Annual Sharjah International Conservation Forum for Arabia's Biodiversity was held at Sharjah Safari, United Arab Emirates (UAE), during 5–8 February 2024. This Forum brought together over 200 participants regionally from Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, UAE, Yemen and internationally from Australia, France, Germany, Greece, New Zealand, Russia, South Africa, the UK and the USA. The Sharjah workshops are hosted by the Environment and Protected Areas Authority, Government of Sharjah, under the patronage of H.H. Sheikh Dr Sultan bin Mohammed al Qasimi, Member of the Supreme Council and Ruler of Sharjah. The 23rd meeting had multiple themes: species prioritization for conservation, rewilding and multi-species translocations, conservation genetics and marine strandings.

In the prioritization theme, using general overview presentations and international and regional case studies, participants were introduced to approaches to species prioritization through scoring species against selected criteria, including classification of extinction risk by applying Red List assessments derived in previous forum meetings. Working groups applied criteria to a subset of Arabian species to rank their importance for conservation action.

The rewilding theme focused on trophic rewilding and the use of conservation translocations to restore trophic interactions to promote self-regulating biodiverse ecosystems, and looked at case studies involving seagrasses, marine and freshwater fishes, and terrestrial Arabian fauna, including the restoration of predator–prey systems.

The conservation genetics theme was led by the Royal Zoological Society of Scotland's WildGenes laboratory, extending the 2023 meeting's theme by introducing the application of genetic scorecards to assess risk to wildlife genetic diversity. Genetic scorecards are an assessment tool recommended by the Global Species Action Plan to support monitoring of genetic diversity under Target 4 of the Kunming–Montreal Global Biodiversity Framework. Working groups used Regional Red Listing outputs from previous Forum workshops, and conservation genetics literature, to make draft assessments of key threatened species.

The marine stranding theme focused on marine turtles and sea snakes and worked towards the formation of a marine stranding response network. The first session was devoted to organizations already active in marine animal strandings. Speakers shared research on risks and pollutants affecting marine animals, including oil spills, boat strikes, micro/macroplastics and pesticide toxins. Lectures on the anatomy and pathology of sea snakes and turtles complimented autopsies performed on several species. Standardized sample and data collecting protocols were developed.