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New record of the Endangered *Nymphaea candida* discovered in Xinjiang, China

Nymphaea candida J. Presl & C. Presl is a perennial aquatic plant of the Nymphaeaceae family. It is predominantly found in still or slow-flowing freshwater across Eurasia, including Central and Eastern Europe, north-west Asia, and Central Asia. Although it is widely distributed and categorized as Least Concern in Europe on the IUCN Red List, it faces significant threats in China, where it is classified as a wild plant under second-class state protection and is categorized as Endangered on the China Biodiversity Red List–Higher Plants. In China it is currently only recorded in the wild in Bosten Lake, Ili Valley Wetland and Irtysh River. The species is threatened by climate change, intensified eutrophication and habitat fragmentation. The wild population of *N. candida* in Gongliu County has decreased by 50% in the past 5 years.

With the support of the third Xinjiang comprehensive scientific expedition project, we surveyed for *N. candida* in August 2023 and August 2024, and identified a new population in Yining County, Xinjiang. We recorded the new population in the reeds of Kashgar Town in August 2024. It consists of c. 150 plants, distributed sparsely across the area. The main accompanying species include *Phragmites australis* and *Typha orientalis*. *Phragmites australis* is the dominant species in this community, with a coverage of $>75\%$, negatively affecting the growth and reproduction of *N. candida*. Additionally, human activities have caused significant damage to native plants in the area. The seed-set rate of this *N. candida* population is extremely low, and there is a risk of local extinction.

Given the conservation status of this species in China, we collected DNA samples to protect its genetic diversity. We collected tubers from 20 plants for ex situ conservation at the Yili Botanical Garden, and fruits for breeding experiments in the laboratory. Local authorities also need to develop in situ conservation strategies for the species. We will continue to investigate the wild distribution of *N. candida*, explore its conservation status and propose appropriate protection strategies.

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Saving *Ulmus elongata*: an Endangered tree endemic to China

Ulmus elongata is a deciduous tree in the family Ulmaceae. It is classified as a second-level National Key Protected Wild Plant and is one of the 120 species of Plant Species with Extremely Small Populations in China. The species is endemic to China, growing in broadleaf forests at 700–900 m, in valleys, along stream banks or on lower slopes. Because of its fragmented population, the harsh growing environment and small winged seeds that are wind dispersed and eaten by birds, seed collection can be difficult. Furthermore, moth larvae feed on its young leaves, leading to significant consumption of seedlings after germination, hindering survival. The combination of these factors contributes to the poor reproductive capability of *U. elongata* in the wild, with <100 mature trees remaining. It is categorized as Endangered on the China Biodiversity Red List, necessitating artificial propagation efforts to increase the number of seedlings and improve its conservation status.

During March 2022–November 2024 we successfully bred $>2{,}000$ seedlings, developing a seed propagation and seedling cultivation plan that includes the optimal timings for harvesting and sowing. We collected mature fruits from Zhenping County and Ankang City, Shaanxi Province, and conducted sowing experiments in the seedling nursery of the Qinling National Botanical Garden. The successfully propagated seedlings are preserved in semi-natural habitats for reintroduction into the wild.

We determined the optimal harvesting period for *U. elongata* seeds to be early April, and timely sowing after collection is needed to ensure seed vitality. We selected well-drained, loose and fertile sandy loam as the seedbed, maintaining a temperature of 18–25 °C. Germination occurs c. 15 days after sowing, and when the average plant height reaches c. 150 cm, the seedlings can be transplanted. During 2022–2024 we introduced 400 seedlings to four locations with conditions similar