

¹Serviço Florestal Brasileiro, Brasília, Brazil. ²Instituto Interamericano de Cooperação para a Agricultura, Brasília, Brazil. ³Universidade de Brasília, Brasília, Brazil. ⁴Instituto de Desenvolvimento Sustentável Mamirauá, Amazonas, Brazil. ⁵Universidade Federal de Lavras, Lavras, Minas Gerais, Brazil. ⁶Universidade Federal de Goiás, Goiânia, Goiás, Brazil

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Conservation initiative launched for threatened wild plants in Xinjiang, China

On 2 September 2025, a conservation project focusing on ex situ protection of threatened wild plants in Xinjiang, China, was awarded to the Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences. It will be implemented at the Yili and Turpan Eremophytes Botanical Gardens, both under the Institute. Funded by the Xinjiang Uyghur Autonomous Region Forestry and Grassland Bureau, the project will run to June 2026.

Xinjiang, a globally significant arid region, hosts a unique and diverse flora, including numerous endemic and threatened species. This initiative aims to establish an ex situ conservation programme for over 50 key protected plant species, such as *Arnebia euchroma*, *Saussurea involucrata* and *Cynomorium songaricum*. The project will use the specialized facilities of the two botanical gardens to create simulated native habitats—including desert–montane transition zones, extreme stress resistance areas, and alpine climate simulators—to enhance plant survival and population stability.

Key technical components include seed banking, propagation through cutting and grafting, and tissue culture. The project will also establish a database to record the biogeographical distribution, key biological characteristics and ecological needs of protected species.

This project is an important step towards safeguarding the genetic diversity of Xinjiang's unique flora, which is threatened by habitat degradation and population decline. It is expected to provide vital germplasm resources and scientific support for future ecological restoration efforts and sustainable utilization initiatives in arid regions.

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JIANCHENG WANG^{1,2} , DAOYUAN ZHANG³ and WEI SHI¹ (shiwei@ms.xjb.ac.cn)

¹Turpan Eremophytes Botanical Garden, Chinese Academy of Sciences, Turpan, Xinjiang, China.

²Xinjiang Key Lab of Conservation and Utilization of Plant Gene Resources, Turpan, Xinjiang, China. ³Xinjiang Institute of Ecology and Geography, Turpan, Xinjiang, China

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Ex situ conservation of the Critically Endangered *Cycas orixensis*

Cycas orixensis (Haines) R. Singh & J.S. Khuraijam is a cycad endemic to the Indian state of Odisha. This arborescent cycad can reach a height of 6 m, has dark green leaves and thrives in the understorey of tropical moist deciduous forests. Our earlier observations revealed that the species is threatened by excessive harvesting of stems with the crown of leaves for religious and cultural rituals, leaves for decorations and seeds for food, and by habitat clearance. These unsustainable practices led to the categorization of *C. orixensis* as Critically Endangered on the IUCN Red List in 2023. The population is small and severely fragmented, with < 2,000 mature plants remaining.

In 2024, we collected seeds, saplings and bulbils of *C. orixensis* from Dhenkanal, Odisha, and transported them to the Botanic Garden of the CSIR-National Botanical Research Institute, Lucknow. The garden has a dedicated Cycad House and an Indian Cycas Garden. In September 2024, seeds of *C. orixensis*, after the removal of the sarcotesta, were planted in individual pots filled with sand, at ambient temperatures (25–37 °C). By early November 2024, signs of germination could be seen, with the emergence of the radicle, followed by the leaves in early March 2025. The process from the initial radicle and plumule emergence to the unfolding of



Well-established *Cycas orixensis* saplings raised from seeds. Photo: Anisiya Naorem.

leaves and transformation into a young sapling required c. 10 months. Saplings and collected bulbils showed new flushing of leaves in March–April and August–September 2025.

The plants raised from seeds are healthy and show signs of new growth. This successful cultivation offers an *ex situ* method for the conservation of *C. orixensis*. The saplings could potentially be used for reintroduction or reinforcement. Currently, we are exploring novel methods to safeguard this ancient plant through reproductive, molecular and evolutionary studies.

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ANISIYA NAOREM^{1,2}  and JIBANKUMAR SINGH KHURAIJAM^{1,2} 
(khurajam.js.nbri@csir.res.in)

¹Botanic Garden, CSIR–National Botanical Research Institute, Lucknow, India. ²Academy of Scientific and Innovative Research, Ghaziabad, India

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Limestone mining threatens endemic herb: conservation actions are urgent

Anthurium cachoeirens is a perennial herb endemic to limestone outcrops in Espírito Santo state, Brazil. It has not been assessed for the IUCN Red List, but is categorized as Data Deficient on the Espírito Santo Red List. The only known population occurs in seasonally dry forests at altitudes of 150–300 m. Information on the species is scarce because it was discovered in 2019 on a private property intended for mining and only two voucher specimens were collected.

In 2024, the mining company requested permission to expand its activities in Cachoeiro de Itapemirim municipality, removing c. 52 ha of the forest where the species grows. As mitigation, the company proposed rescuing individual plants and moving them to nearby areas. However, the proposed monitoring plan is limited to the legal minimum: assessing short-term survival, growth and reproduction rates.

In August 2025 (case 40183173), the relevant state environmental authority (Instituto Estadual de Meio Ambiente e Recursos Hídricos, IEMA) requested further information to supplement the environmental licensing application from the mining company because of the superficial mitigation proposal. We have proposed to IEMA the implementation of a conservation programme for the species, comprising the following measures: (1) assessing the species' role in the plant community; (2) distribution of individual plants to germplasm banks in national botanical gardens, to preserve the species' genetic diversity; and

(3) long-term monitoring of the transplanted specimens for at least 5 years, to assess pollination success and seed viability. More widely, such actions need to be included in the Brazilian government's Territorial Action Plans for threatened species, a tool widely applied for plant conservation in the country.

Additionally, *A. cachoeirens* needs to be assessed for both the national and IUCN Red Lists. Given there are no data on the ecology of this species and that access to the only known population is restricted, it is essential to implement long-term conservation initiatives. Espírito Santo state has already lost c. 85% of its forest cover, and the species' habitat of limestone outcrops is rare in the state. This greatly reduces the likelihood of discovering any additional populations of *A. cachoeirens*, and thus reinforces the need to protect the existing population. Furthermore, it is likely that other species endemic to these limestone formations would benefit from the establishment of a public policy for their conservation.

RODRIGO VALADARES¹  (rodrigotheofilo@yahoo.com.br),
ALINE PITOL CHAGAS² , LUANA CALAZANS¹  and VALQUÍRIA
DUTRA¹ 

¹Universidade Federal do Espírito Santo, Vitória, Brazil.

²Instituto Estadual de Meio Ambiente e Recursos Hídricos, Cariacica, Brazil

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Ants in the pet trade: an urgent call to CITES Parties to protect global ant diversity from emerging trade threats

The international trade in ants made headlines around the world when a gang was sentenced for smuggling 5,000 queen ants in Kenya (*BBC News*, 7 May 2025, [bbc.co.uk/news/articles/cyoxo7pr8dno](https://www.bbc.com/news/articles/cyoxo7pr8dno)). Long regarded as innocuous childhood pastimes, ant farms have increasingly become part of a global trade network. Recent developments, reflected in confiscation records, customs seizures, scientific literature and the widespread popularity of ant trading on online platforms, underscore the emergence of a significant and expanding international market for ants within the exotic pet industry.

Many of the ant species involved in this trade possess high invasive potential. Once introduced outside their native ranges, invasive ants can have profound negative conservation impacts, and cause ecological disruption and economic harm. In addition, international trade also poses a threat to the species being traded.

Despite growing concerns, no ant species are currently listed under CITES. This regulatory gap exposes a critical weakness in the global effort to protect invertebrate species