

## Searching for two endemic plants on Nusakambangan Island (Indonesia) last collected more than a century ago

Nusakambangan is a small island of 210 km<sup>2</sup> on the southern coast of Cilacap Regency, Central Java Province, Indonesia, with high flora diversity and various types of forests from mangrove to limestone hill forests. There are > 750 plant species known from the island, including two endemic species *Lagerstroemia vanosii* W.J.de Wilde & Duyfjes (Lythraceae) and *Piper mucronulatum* Blume (Piperaceae). *Lagerstroemia vanosii* is a tree species known only from herbarium specimens, last collected by Koorders on 4 March 1902. *Piper mucronulatum* is a woody climber known from a single herbarium specimen collected before 1826. To our knowledge, these two endemic plants have not been observed for more than a century, are not known to be present in any ex situ conservation areas, and their conservation status has not been assessed.

In January 2022, we surveyed the only two protected areas in Nusakambangan Island, West and East Nusakambangan Nature Reserves, and one unprotected area between the Reserves. We attempted to survey a wide range of vegetation types, including mangrove, coastal, lowland and limestone hill forests across altitudes of 0–190 m. Despite intensive searches, we were unable to locate either species.

Habitat conversion and invasive plants are potentially the two main threats to these endemic species and the most likely reasons for our failure to relocate them. Many forested areas on the island have been converted into settlements, agriculture fields and limestone mines. The invasive palm, langkap *Arenga obtusifolia* Mart., is a serious threat to the island ecosystem in general. Once it dominates a forest stand, other plants struggle to survive because of both vertical and horizontal constraints related to canopy shade, roots and competition.

We recommend that both endemic species should be categorized as Critically Endangered on the IUCN Red List under criteria A2c; i.e. a population decline of > 80% in the last three generations (A2) based on a decline in area of occupancy, extent of occurrence, and habitat quality (c). We recommend additional surveys for these two species in other locations on Nusakambangan. Conservation interventions are required to halt the ongoing conversion of forest and the domination of the invasive palm.

ENGGAL PRIMANANDA ([orcid.org/0000-0002-1197-3815](https://orcid.org/0000-0002-1197-3815), [enggal.primananda@brin.go.id](mailto:enggal.primananda@brin.go.id)), DIPTA SUMERU

RINANDIO ([orcid.org/0000-0001-8938-9574](https://orcid.org/0000-0001-8938-9574)) and

IYAN ROBIANSYAH ([orcid.org/0000-0002-0503-458X](https://orcid.org/0000-0002-0503-458X))

Research Center for Plant Conservation, Botanic Gardens and Forestry, National Research and Innovation Agency, Bogor, Indonesia

This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/).

## GlobalTree Portal: visualizing the State of the World's trees

Simultaneously with the release of the State of the World's Trees report in September 2021 ([bgci.org/news-events/bgci-launches-the-state-of-the-worlds-trees-report](https://bgci.org/news-events/bgci-launches-the-state-of-the-worlds-trees-report)), Botanic Gardens Conservation International released the GlobalTree Portal ([bgci.org/resources/bgci-databases/globaltree-portal](https://bgci.org/resources/bgci-databases/globaltree-portal)), a hub for the data collected during the Global Tree Assessment. This is the first portal dedicated to tree conservation information and is a vital source of information for prioritization of action to prevent the extinction of any of the world's c. 60,000 tree species.

The initial results of the Global Tree Assessment, a project bringing together data from experts worldwide to assess the conservation status of the world's tree species, revealed that at least 30% are threatened with extinction. The GlobalTree Portal is a response to the need to help prioritize conservation action for those species at highest risk of extinction.

The GlobalTree Portal displays information on a species at both country and global levels. It covers conservation status, both on the IUCN Red List and BGCI's ThreatSearch database ([tools.bgci.org/threat\\_search.php](https://tools.bgci.org/threat_search.php)), and conservation action information, both in situ and ex situ. At the country level, checklists of native tree species, detailing endemism and IUCN Red List status, can be downloaded. The species-level search features the Conservation Action Tracker, showing information on conservation actions that are already in place. It also allows conservation practitioners to contribute and update information on conservation actions for any tree species.

The GlobalTree Portal is a global resource for tree conservation, providing data that have hitherto been unavailable. It can be used to identify gaps in conservation at various levels, facilitating policy change and direct action. This resource demonstrates that conservation action is not in place for many of the most threatened tree species, and these are therefore a priority for protection.

EMILY BEECH ([orcid.org/0000-0002-1107-254X](https://orcid.org/0000-0002-1107-254X), [emily.beech@bgci.org](mailto:emily.beech@bgci.org)), RYAN HILLS ([orcid.org/0000-0002-7192-7941](https://orcid.org/0000-0002-7192-7941)) and MALIN RIVERS ([orcid.org/0000-0001-9690-1353](https://orcid.org/0000-0001-9690-1353)) Botanic Gardens Conservation International, Richmond, Surrey, UK

This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/).

## Online trade threatens even inconspicuous wildlife

The option of selling online, and next-day deliveries, have made available specialized consumer markets that were previously not large enough to be profitable. This includes