(a) Female and (b) male flowers of *Garcinia gamblei*. Photos: Abinlal Kavungullachalil.

(1) the low number of reproductively active trees in the population, (2) the rarity of seedlings, indicating low recruitment, (3) strong winds during the monsoon season damaging the large branches of mature trees, (4) an increasing number of tourists and occasional forest fires, and (5) high seed predation.

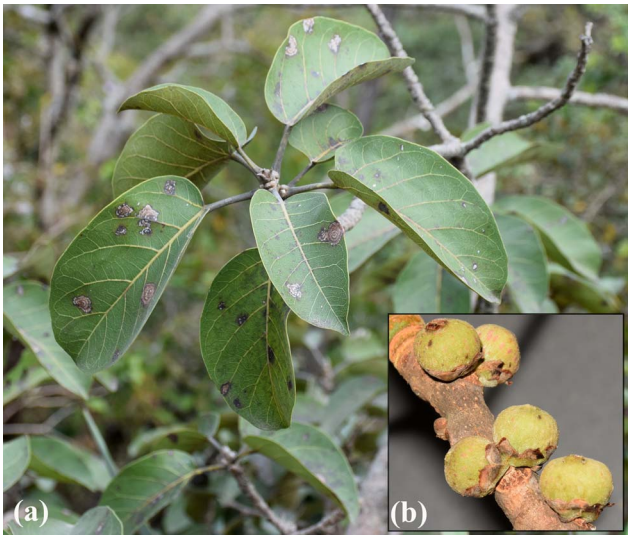
Measures are required to prevent the extinction of this rare tree species. Our preliminary studies indicate the seeds have high moisture content and delayed germination. At Jawaharlal Nehru Tropical Botanic Garden and Research Institute research is being carried out on propagation protocols (both sexual and asexual), population structure and ex situ conservation of *G. gamblei*. We are planning to collect seeds of *G. gamblei* for ex situ propagation and potential translocation of the species to the Botanical Garden and its natural habitat.

Abinlal Kavungullachalil, Anurag Dhyani (orcid.org/0000-0003-0852-6237, anuragdhyani@gmail.com), Suresh Sivankunju, Shareef Sainudeen Muhammed and Santhosh Kumar Ettickal Sukumaran Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Thiruvananthapuram, Kerala, India

Conservation assessment of *Ficus cupulata*: a narrow range endemic species of Central India

Ficus cupulata Haines is a rare, endemic tree species of Central India. It was first described by Haines in 1914 based on his collections from Panchmarhi hills of Madhya Pradesh. It was recollected 86 years, in 2002, later by Khanna & Kumar from Rorighat near Panchmarhi. This species was considered endemic to Madhya Pradesh until Khanna & Kumar also reported it from Orchha forest division in Jhansi, Uttar Pradesh, in 2009. The species is allied to *Ficus benghalensis* L. and *Ficus mollis* Vahl in its growth form, habitat, and morphological appearance, but is distinct from both in having cupulate bracts in the fruits.

Ficus cupulata came to our attention when we were working on the traded forest flora of Madhya Pradesh, a project funded by Madhya Pradesh Biodiversity Board, Bhopal (Grant no. MPSBB/AMS (PRJ)/2020/2100). We



Ficus cupulata Haines: (a) habit, (b) fruits. Photos: Amber Srivastava.

subsequently undertook field surveys, during 1 October–20 December 2021, in various parts of Madhya Pradesh to locate the species. We found *F. cupulata* in 15 locations in Panchmarhi Biosphere Reserve and the Tamia region of Hoshangabad and Chhindwara districts, respectively, but despite several surveys we could not locate the species in the Orchha forest division.

We recorded a total of 585 mature individuals in a total surveyed area of 1,500 km², and estimated area of occupancy and extent of occurrence to be 64 km² and 409 km², respectively. Based on these findings, we recommend that *F. cupulata* should be categorized as Endangered on the IUCN Red List based on criteria B1b(iii)c(iv)+2bc(iii); C2b. The species' restricted distribution range and small population size, and existing threats, warrant immediate conservation action. As the species was not under ex situ conservation in any botanical garden, we collected planting material (stem cuttings and saplings) of the species from Panchmarhi and introduced it to the botanical garden of the Council of Scientific and Industrial Research–National Botanical Research Institute, Lucknow. Plantlets raised in the botanical garden will provide propagation and research material for future studies of this species.

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Amber Srivastava (orcid.org/0000-0003-3018-5176), Dibyendu Adhikari (orcid.org/0000-0002-5057-0541) and Vijay V. Wagh (orcid.org/0000-0002-6890-8862, vijay.wagh@nbri.res.in) Council of Scientific and Industrial Research–National Botanical Research Institute, Lucknow, Uttar Pradesh, India

Status of the Endangered *Canarium kipella* and its lack of regeneration in ex situ cultivation

Canarium kipella (Burseraceae) is a tree endemic to West Java, Indonesia. According to herbarium specimens collected in 1899 and 1904, the tree occurs only in Pelabuhan Ratu and Mount Salak, respectively. Currently, it is known only from two mature individuals planted at the Bogor Botanic Gardens 106 and 62 years ago. The two collections came from seedlings collected from Mount Salak in 1916 and 1960. As a result of threats from habitat conversion into human settlements and agricultural fields, the species is categorized as Endangered on the IUCN Red List.

In 2018, I. Robiansyah and S.U. Rakhmawati surveyed Mount Salak but despite intensive exploration they were unable to locate the species. During 23–26 March 2022 we surveyed the second known location of the species, in Pelabuhan Ratu. We searched for the tree using line

The fruits of *Canarium kipella*: (a) fruiting in ex situ cultivation, (b) young and ripe fruits, (c) cross-section showing seed with three locules, two with undeveloped ovules and one with a fully-developed kernel. Photos: Enggal Primananda.