

## Record of *Barringtonia acutangula* (L.) Gaertn. (Lecythidaceae) from Nagpur District, Maharashtra, India

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### ABSTRACT

During a birdwatching along the Gorewada Lake shore, the authors observed an uncommon tree species not previously seen in the Vidarbha landscape. Subsequent study revealed that the species was uncommon in the entire Vidarbha region. This record contains the species with supporting documentation, including photographic evidence, a digital herbarium specimen, and details of the plant's habitat.

**Key words:** *Barringtonia acutangula*, Lecythidaceae, Morphological record, Gorewada Lake, Vidarbha, Wetland flora, Flora of Nagpur

### INTRODUCTION

Gorewada is a Reserve Forest situated in Nagpur outskirts with an area of 1914 hectares. This includes Balasaheb Thackeray Gorewada International Zoological Park, Gorewada Biodiversity Park, Jungle Drive and Wildlife Research and Training Centre and Gorewada Rescue Centre. Most of the area is covered with dry deciduous forest, some parts with grassland and has a large water reservoir, which is basically used as a source for fishing, drinking water and other household uses.

*Barringtonia acutangula* is commonly known as Indian Oak and popular as Samudraphal, which is a very important traditional medicinal plant (Kaur et al. 2013). *Barringtonia acutangula* has been recently assessed for the IUCN Red List of Threatened Species, in which *Barringtonia acutangula* is listed as Least Concern. (Barstow 2019). *B. acutangula* is a semi-aquatic tree species native to South and Southeast Asia, typically associated with riparian zones, floodplains, and freshwater wetlands (Parthasarathy et al. 2008; Ganesan & Sivakumar 2014). It is known for its long,

pendulous racemes of night-blooming flowers and pollination by Bat/Moth and their seeds are dispersed with water flow (Tomlinson 1986).

### MATERIALS AND METHODS

Three mature individuals were documented accidentally on the banks of Gorewada Lake (21.198°N, 79.039°E) within the Gorewada Reserved Forest during a birdwatching in June 2025.

The identification of the species was confirmed through expert validation by the Head of the Department of Botany, University of Nagpur, and the Department of Botany, Hislop College, Nagpur. Different parts of a tree were collected and digitized using a Canon ImageRunner C3326 Laserjet scanner for the preparation of a digital herbarium (Fig. 1). Concurrently, the development of a physical herbarium specimen is underway. High-resolution photographs were captured using a Samsung S20 FE smartphone, documenting key morphological features of the species and habitat (Figs. 2 & 3).

### RESULTS AND DISCUSSION

No previous morphological records of this species exist from Nagpur District in standard floras (Cooke 1903; Almeida 1996), Flora of Nagpur District (Ugemuge 1986), New addition of species in Nagpur's flora (Kamble et al. 2013a, b, c; Kamble et al. 2015) and Wetland Flora of Gorewada

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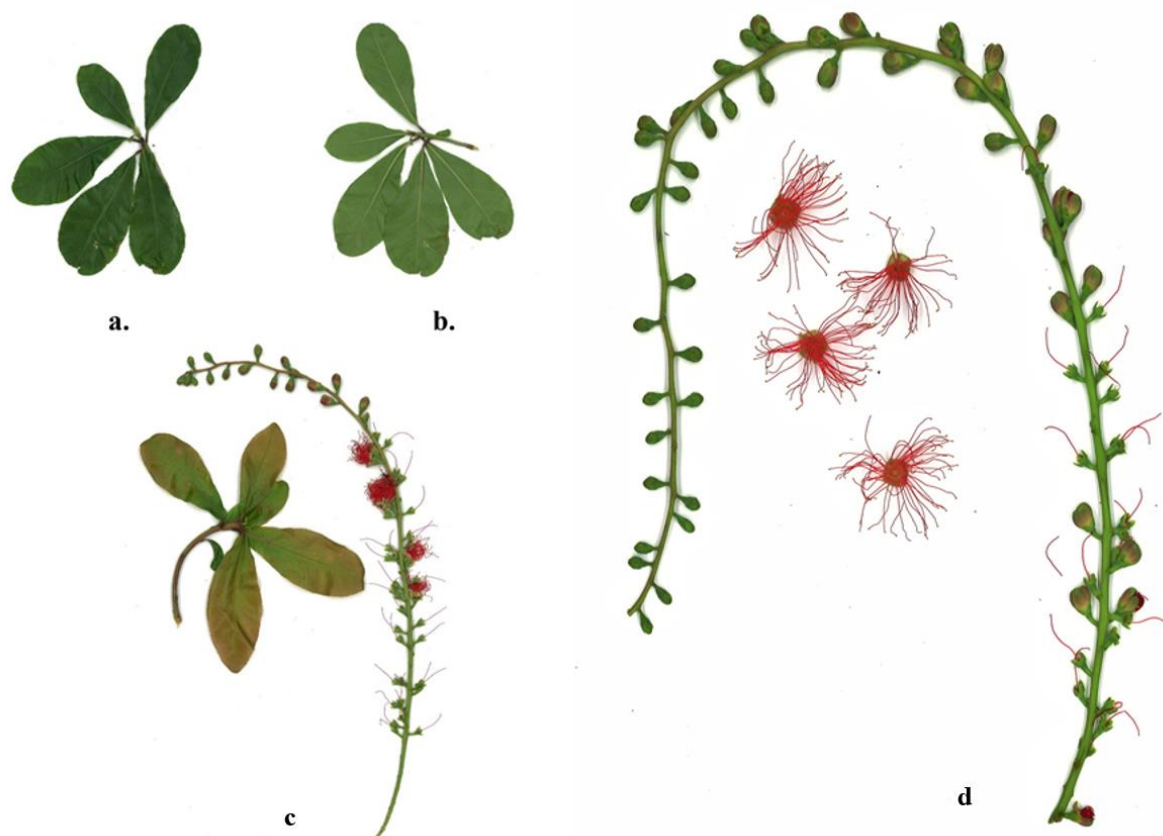
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International Biopark, Nagpur, India. (Kamble et al. 2021) but it is listed in Inventory List of Plant Diversity in Tropical Dry Deciduous Forest of Pench Tiger Reserve, Maharashtra, India (Kolagani et al. 2024).

We report the confirmed record of *Barringtonia acutangula* (L.) Gaertn. from Nagpur District, Maharashtra. The individuals were observed growing in close proximity to permanent water and appeared well-established, indicating natural colonization or persistence of a relict population. The presence of this species in an inland forested wetland

suggests the existence of localized hydric microhabitats favourable for its establishment.

This new locality represents a notable extension of the known distribution of *B. acutangula* in central India. It contributes to the floristic documentation of the Vidarbha region and highlights the ecological importance of Gorewada Lake's wetland ecosystem. Continued surveys are recommended to assess the extent of the local population, reproductive viability, and potential conservation significance. It also underscores the need of keen observation and daily monitoring to contribute in floral diversity of Vidarbha region.



**Fig. 1:** Parts of *Barringtonia acutangula* (L.) Gaertn.: a. Adaxial surface of leaves; b. Abaxial surface of leaves; c. Pendulous raceme flower cluster including buds and leaves; d. Raceme with flower stalk, young buds and flowers





**Fig. 2:** e. Bark texture; f. Flower buds started blooming; g. Raceme; h. Fruit

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**Fig. 3:** i. Shore of freshwater wetland; j. *Barringtonia acutangula* (L.) Gaertn. On the bank of Gorewada lake; k. Fallen flowers of *Barringtonia acutangula* (L.) Gaertn.; l. *Barringtonia acutangula* (L.) Gaertn. with Gorewada lake

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