

DISTRIBUTION OF CRITICALLY ENDANGERED SPECIES – *BURMANNIA INDICA* JONKER. (BURMANNIACEAE)

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Abstract: The present study identified the critically endangered species, *Burmattia indica* Jonker, Burmanniaceae in Southern Western Ghats of Tamil Nadu for the first time. It provides the detailed description, photographs of original habitat and associated plants for easy identification.

Keywords: *Burmattia indica*, Critically endangered, Southern Western Ghats, Tamil Nadu.

1. INTRODUCTION

Burmanniaceae is characterized as saprophytic with the life form is more accurately as mycotrophic or myco-heterotrophic [1]. Some photosynthetic species have been shown to be endomycorrhizal and also as hemi-saprophytic [2, 3, 4]. It is generally unbranched stems, some lacking leaves. This family occurs in tropics and subtropical distribution and number of species are threatened.

The genus *Burmattia* L. comprises about 59 species in world. In India, it records 4 species from Western Ghats of India, among them *Burmattia indica* being critically endemic to India. Jonker [5] was first described *Burmattia indica*, homogenous collection of Meebold's in 1909 from Peermade (Idukki, Kerala) in his monograph of Burmanniaceae. Hazra [6] in Fascicles of Flora of India and Sasidharan [7] mentioned the occurrence of species based on previous collection and as an endemic to Kerala. There was no subsequent collection of this species anywhere from south India after the original collection by Meebold in 1909 [8, 9, 10, 11, 12].

Dani Francis et al [13] reported *B.indica* from Meenuliyanpara, Idukki district, Kerala which was different of type locality of Meebold. During the field exploration in the Meghmalai Wildlife Sanctuary, Southern Western Ghats of Tamil Nadu and identified the species from the study area as a new distributional record to State flora of TamilNadu.

2. MATERIALS AND METHODS

During floristic survey in Megamalai Wildlife Sanctuary in the Southern Western Ghats of Theni district, Tamil Nadu plants were collected. Specimens prepared as Herbarium and deposited in Bharati Herbarium, Department of Botany, Bharathiar University, Coimbatore, Tamil Nadu. The distribution and abundance of the species were observed by frequent field trips to the study area. The identity of the species was confirmed in comparison with the types, protologues of related species and herbarium specimens deposited at K and MH. Provisional conservation status assessments were based on IUCN Red List Categories and Criteria [14].

TAXONOMIC TREATMENT

Burmattia indica Jonker, Meded. Bot. Mus. Herb. Rijks. Univ. Utrecht. 51: 161. 1938; Hajra in Nayar et al., Fasc. Fl. Ind. 19: 12. 1988. Mohanan and Henry. Fl. Thiruvananthapuram. 1994. Sasidharan. Flowering plants of Kerala. 2011.

Description

Herb, saprophytic stem 10-23 cm high, filiform, simple. Linear-lanceolate, acuminate at apex, Scales 1-4 mm long. Inflorescence 1-(2) flowered or 3-5-flowered, bifid-cincinnus. Flowers 8-9 mm long, subsessile, purplish, prominently 3-winged; bracts 1-2.5 mm long, lanceolate, acute. Outer perianth-lobes 1-2 mm long, erect, triangular, acute, without fleshy bags, with thick swollen margin not involute. Inner lobes 0.5-1 mm long, linear, acute, thick, swollen. Connective trapeziform with two divergent, obtuse, curved, apical crests and a basal obtuse spur. Ovary ca 7 mm long, obovoid or obconical; style 5-10 mm long; stigmas 3, sessile, curved, funnel-shaped, subbilabiate. Capsule obovoid or orbicular, dehiscing with transverse slits.

Habitat: Found in streaming rocky open wetland and slope, associated with *B.pusilla*, *B. coelestis*, *Utricularia sp.*, *Impatiens*, *Eriocolon*, *Murdannia*, *Exacum*, *Justicia* and *Fimbristylis sp.* at an elevation of \pm 1578 m, habitats of *B. indica* is chlorophyllous and not mycoheterotrophic indicates an autotrophic nature.

Flowering: December

Distribution: Kerala and Tamil Nadu.

Specimen examined: India, Tamil Nadu, Theni District, Megamalai Wildlife Sanctuary: Vattaparai 15/12.2019 (9.584428, 77.330088) and Maharajamettu 18/12/2019 (9.617419, 77.300497). Kanivalan I and Rajendran A (7881) Bharati.



ACKNOWLEDGEMENT

The authors are grateful to Professor and Head, Department of Botany, School of Life Sciences, Bharathiar University, Coimbatore, Tamil Nadu for providing necessary facilities and encouragement. We extend our sincere thanks to Department of Science and Technology – PURSE (II) and RUSA 2.0 for fund assistance and The Principal Chief Conservator of Forests, Chennai; Chief Conservator of Forest, Madurai Circle; Megamalai Wildlife Sanctuary for providing permission to field work.

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