



Rediscovery of *Pinalia mysorensis* (Lindl.) Kuntze after a gap of 125 years from Maharashtra, Northern Western Ghats

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Abstract

This paper reports the rediscovery of *Pinalia mysorensis* after 125 years from Maharashtra in the Northern Western Ghats. A brief description, distributional notes, photographic documentation, and an IUCN-based threat assessment are provided.

Keywords: Endemic orchid, India, Mahabaleshwar, satara, Western Ghats

Introduction

The genus *Pinalia* Lindl., belongs to the subtribe Eriinae (Pridgeon *et al.* 2005) [10]. It comprises about 174 species distributed from the Himalayas to Myanmar, China, Vietnam, Laos, Thailand, the Malay Archipelago, Australia, and the Pacific islands (POWO, 2025). In India, the genus is represented by 19 species (POWO, 2025) [9], of which two species *viz.*, *Pinalia mysorensis* (Lindl.) Kuntze and *Pinalia polystachya* (A. Rich.) Kuntze were reported from Western Ghats of India. During a recent field survey by nature enthusiasts in and around the Mahabaleshwar area, a small population of an epiphytic orchid was reported in the vegetative stage near Wada Kumbhroshi, Mahabaleshwar, Satara district of Maharashtra state. On a subsequent visit to the site, the plant was found in the flowering stage, and specimens were collected for identification. The specimens were later sent to the senior author for confirmation. A thorough examination of morphological characters, combined with a critical review of the relevant taxonomic literature (Cook, 1907 [3]; Santapau & Kapadia, 1966 [11]; Jalal, 2018 [7]), confirmed the identity of the specimens as *Pinalia mysorensis* (Lindl.) Kuntze. Historical herbarium records indicate that this species was last collected in the Mahabaleshwar region by J. M. Woodrow in 1883 and later by James in 1900. Since then, despite numerous botanical surveys in the Western Ghats, no further collections have been reported from Maharashtra. Consequently, the species was considered Possibly Extinct in the region due to its prolonged absence (Jalal & Singh, 2015 [12]). The present record, therefore, represents the first confirmed occurrence of *P. mysorensis* in Maharashtra after a gap of 125 years. The voucher specimens have been deposited in the Central National Herbarium (CAL) for future reference. The present paper provides a brief taxonomic description, distributional records, habitat and ecological notes, and an IUCN Red List assessment as per IUCN guidelines (IUCN, 2024) [4].

Taxonomic Treatment

Pinalia mysorensis (Lindl.) Kuntze in Revis. Gen. Pl. 2: 679. 1891. *Eria mysorensis* Lindl. in J. Proc. Linn. Soc.,

Bot. 3: 54. 1858; Hook.f., Fl. Brit. India 5: 793. 1890; Woodrow in J. Bombay Nat. Hist. Soc. 12: 518. 1899; T. Cooke, Fl. Bombay 2: 690. 1908; Santapau & Kapadia, Orch. Bombay 149. 1966; Bole & M.R.Almeida in J. Bombay Nat. Hist. Soc. 83: 580. 1986; Lakshmin. in B.D.Sharma *et al.*, Fl. Maharashtra: Monocot. 26. 1996; M.R. Almeida, Fl. Maharashtra 5A: 44. 2009; Jalal, Orch. Maharashtra 90. 2018. Plate 1

Epiphytes, up to 17 cm tall. Pseudobulbs caespitose, covered by sheathing scales, oblong-ovate to lanceolate, reddish-brown in colour, wrinkled on maturity. Leaves 5, apical on the developing shoot, 5–13 x 2–2.5 cm, elliptic-lanceolate, acute, prominently veined, base sheathing, articulate, narrowed in to a short, channeled petiole; lowermost leaf reduced, uppermost one is longest. Inflorescence 1 or 2, arises between leaves, up to 10 cm long, curved, lax to sub-densely 10- many flowered. Floral bracts ovate-lanceolate, reflexed, entire, acuminate, 3-veined. Flowers white, ca. 1.2 cm across, creamy white, fragrant, labellum with purple blotches at base, yellow at apical portion. Pedicel and ovary pubescent, ca. 8 mm long. Dorsal sepal oblong-lanceolate, entire. Lateral sepals lanceolate, falcate, entire, acuminate; mentum saccate, obtuse. Petals narrowly elliptic, falcate, entire, acute. Labellum ca. 8 mm long, with a short claw, 3-lobed; side-lobes narrowly lanceolate, falcate, entire, obtuse; midlobe sub-cordate, reflexed, irregularly crenulate to undulate, obtuse-apiculate. Column short; foot long, incurved.

Flowering & fruiting: August–September.

Habitat & ecology: *Pinalia mysorensis* observed growing under semi-evergreen forests on a *Mangifera indica* tree along with other epiphytic orchids *Bulbophyllum fimbriatum* and *Oberonia* sp.

Distribution: India (Maharashtra, Karnataka, Kerala and Tamil Nadu). Endemic.

Specimens examined: Maharashtra: Satara district, Khumbhroshi, 1197m, 15.08.2025, S.D.Kulkarni & party 103701 (CAL); Mahabaleswar, 600m, 16.08.1883, J. M. Woodrow s.n. (CAL acc. no. 453115); Mahabaleshwar,

31.08.1900, James s.n. (CAL acc. no.453114); Konia Valley, Anonymous s.n. (BLAT acc. no. 72417, 72418).

Red List assessment as per IUCN guideline

Pinalia mysorensis is endemic to Western Ghats of India (Jalal & Jayanthi, 2012) [6]. It is distributed in Maharashtra, Karnataka, Kerala and Tamil Nadu (Singh *et al.* 2019) [12]. Occurrence records were gathered based on the personal observations, herbarium records and literature. The EOO and AOO were calculated by using the online software GeoCAT (Bachman *et al.* 2011) [2] based on a grid cell of 2 x 2 km (Figure 1). The extent of occurrence (EOO) is calculated as 87,043.783 km² (far exceeding the upper limit of Vulnerable status under the criterion B1), whereas the area of occupancy (AOO) is estimated to be 88 km² (which falls within the limits for Endangered status under the criterion B2). Although its AOO is small, the species is widely distributed across the Western Ghats and is recorded

from at least 22 locations, including four protected areas *viz.*, Bhadra Wildlife Sanctuary, Sharavathi Valley Lion-tailed Macaque Wildlife Sanctuary, Anamalai Tiger Reserve and Kalakad Mundanthurai Tiger Reserve, where it currently does not face direct anthropogenic threats, although the possibility of indirect habitat disturbance cannot be ruled out. The species is not considered to be severely fragmented, and although habitat quality is affected by urbanization, forest fragmentation, and developmental activities, it remains common in many localities. Field surveys in Maharashtra reported more than 50 mature individuals with good fruit set, suggesting healthy reproductive success. The overall population size is not precisely known but is inferred to be stable, and ongoing habitat loss is not projected to cause a continuous decline in mature individuals in the near future. Based on this evidence, the species does not qualify for any threatened category and is therefore assessed as Least Concern (LC).



Plate 1: A. Habitat of *Pinalia mysorensis*, B. Habit in flowering, C. Inflorescence

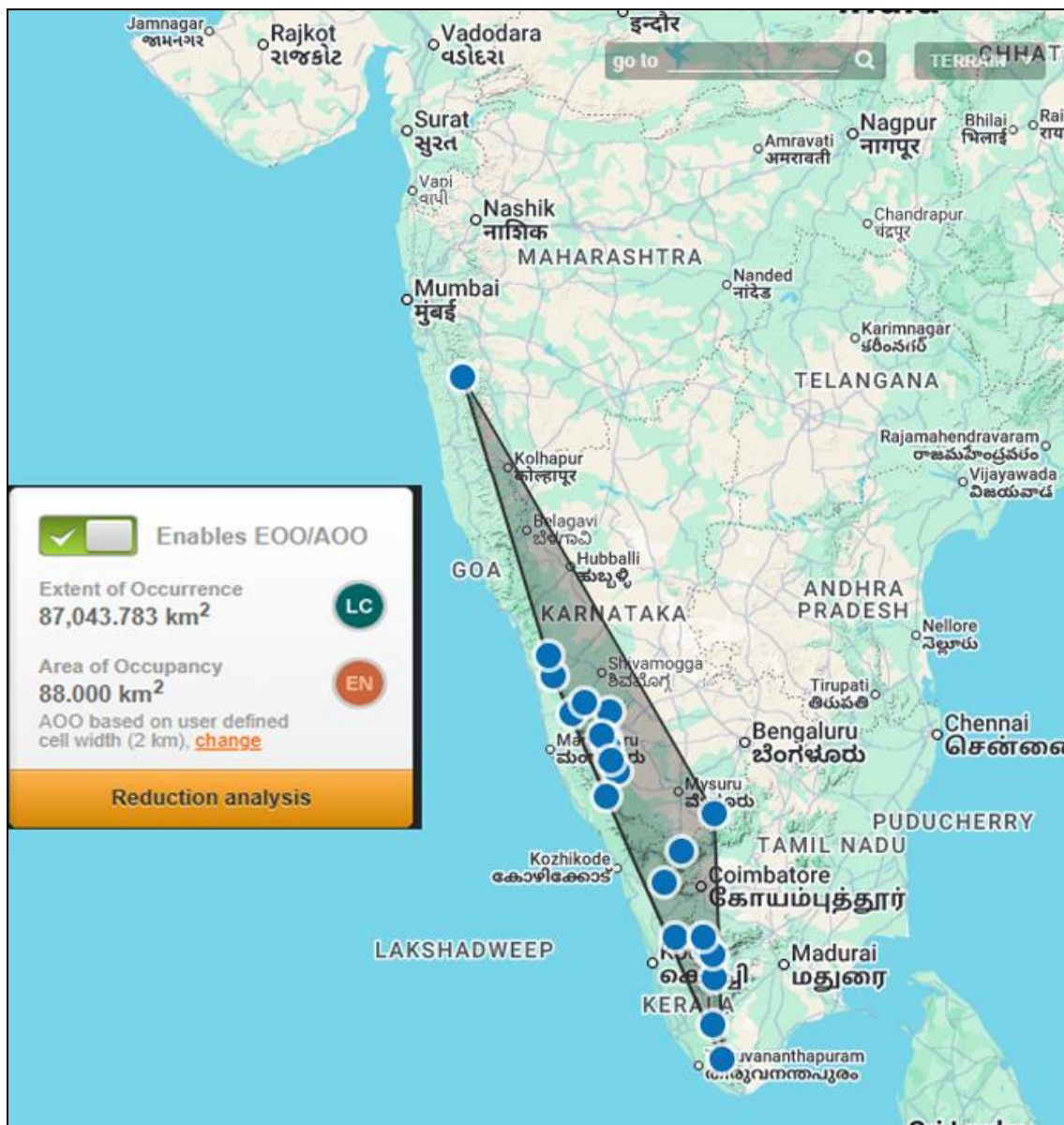


Fig 1: Range map of *Pinalia mysorensis* created by using GeoCAT online software

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