

A NOTE ON THE EXTENDED DISTRIBUTION OF *NERVILIA INFUNDIBULIFOLIA* BLATT. & MCCANN (ORCHIDACEAE) IN MEGHALAYA, NORTHEAST INDIA

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Abstract

Nervilia infundibulifolia Blatt. & McCann (Orchidaceae) collected from East Khasi Hills is reported here as an addition to the orchid flora of Meghalaya. The detailed taxonomic description, photo plate, and other relevant notes are provided for easy identification of the species.

Introduction

THE GENUS *Nervilia* Comm. ex Gaudich. comprises of 83 accepted species (POWO, 2024) and is distributed from tropical, subtropical to warm temperate regions of Africa, Asia, Australia, and the South West Pacific islands (Govaerts *et al.*, 2017). The genus is represented by 15 species in India (Singh *et al.*, 2020), of which five species namely *Nervilia concolor* (Blume) Schltr., *N. hookeriana* (King & Pantl.) Schltr., *N. khasiana* (King & Pantl.) Schltr., *N. macroglossa* (Hook.f.) Schltr., and *N. plicata* (Andrews) Schltr. are reported from Meghalaya (Deori and Odyuo, 2019; Mao *et al.*, 2016; Pagag *et al.*, 2014). In Himachal Pradesh, the genus is represented so far by 3 species: *Nervilia concolor* (Blume) Schltr., *N. gammieana* (Hook.f.) Pfitzer, and *N. plicata* (Andrews) Schltr. (Vij *et al.*, 2013); two species of *Nervilia concolor* (*N. aragoana* Gaudich.) and *N. gammieana* (Hook.f.) Schltr. were reported as new records for Himachal Pradesh by Vij *et al.* in 2008. The members of this genus are terrestrial herbs, mostly growing under shady places developing flowers, and leaves at different times; all the above ground parts perish at the end of the growing season (Pridgeon *et al.*, 2005). During the recent survey in the month of March 2023, in the Botanical Garden of Botanical Survey of India, Eastern Regional Centre campus premises, Meghalaya, the authors collected a few specimens of this terrestrial orchid in flowering and later collected in vegetative condition for further study. After critical examination of dissected flowers under stereomicroscope (OLYMPUS-SZ61) and through literature consultation (Mao *et al.*, 2016; Singh *et al.*, 2020), the specimens were identified as *Nervilia infundibulifolia* Blatt. & McCann which is not as yet reported from Meghalaya (Mao *et al.*, 2016; Singh *et al.*, 2020). Hence, the present communication reports it as a new addition to the flora of Meghalaya and its herbarium specimens are deposited in the ASSAM Herbarium. The

description with identification characters of the species with colored photograph plate is provided (Fig. 1A-L).

Taxonomic Description

Nervilia infundibulifolia Blatt. & McCann, J. Bombay Nat. Hist. Soc. 35: 725. 1932; H.J. Chowdhery, Orch. Fl. Arunachal Pradesh 529, f. 329. 1998; H.J. Chowdhery, G.S. Giri & A. Pramanic, Materials for the flora of Arunachal Pradesh 3: 126. 2009; Singh & al. (ed. A.A. Mao & S.S. Dash) in Fl. Pl. India Annot. Checkl. Monocot.: 81. 2020.

Herb, small terrestrial; *tuber* 7.5-12 mm in diameter, ovoid-globose, warty on surface. *Leaves* spreading on ground, 2.2-5.5 × 3.0-6.0 cm, broadly cordate, acute to rounded at apex, cordate at base, margin entire, purple-maroon, many nerved, light green on both surfaces, purple-maroon streaks along nerves when young; *petioles* erect, succulent, 3-5 cm long, with white sheath at base. *Inflorescence* 1-flowered, 6.5-10 cm long, bearing 2-3 membranous sheathing cataphylls; *peduncle* purplish-brown. *Floral bracts* 3-4 × 1-2 mm, long pointed, oblong-lanceolate, enclosing the petiole at base, 3-veined, glabrous, acute-acuminate. *Flower* single on leafless stem, ca. 2.5 cm across, greenish-purple, *pedicel* 5-7 mm long. *Sepals* and *petals* purplish-brown, linear-lanceolate or oblanceolate, 3-veined, acute at apex. *Sepals* 13-15 × 2-4 mm long, linear-lanceolate or oblanceolate. *Petals* 13.5-16.0 × 1.6-2.0 mm, slightly falcate, acute. *Labellum* 13-15 × 3.8-5.0 mm, oblong-obovate, white with purple stripes on adaxial surface, slightly 3-lobed, acute at apex; mid-lobe ca. 10 × 6 mm, ovate, pink with dark patches. *Ovary* 5-7 mm long, oblong-ovoid. *Column* 7-10 mm long, with a patch of short hair below the stigma, white with purple spots, straight; *Operculum* 1.2-1.5 mm in diameter; *rostellum* protruding stigma shield-shaped; *pollinium* ca. 2 mm long.



Fig. 1A-L. *Nervilia infundibulifolia*: A, Plant growing in its natural habitat; B, Inflorescence with tuber and flower; C, Flower with pedicel; D, Pedicel and bract; E, Floral bract; F-G, Front and side views of flower; H, Floral perigon with lip; I, Lip with ovary pedicel; J, Dorsal view of lip; K, Operculum; L, Pollinium.

Flowering

March-June; in leaf during June-October.

Habitat

Terrestrial, growing in monsoon under shady places of forest at elevation of 1475 m altitude.

Distribution in World

Bhutan, China, India, Indonesia, Laos, Myanmar, Malaysia, and Thailand.

Distribution in India

Arunachal Pradesh, Andhra Pradesh, Jharkhand,

Karnataka, Kerala, Maharashtra, Meghalaya, Odisha, Tamil Nadu, and Uttarakhand.

Specimens Examined

India, Meghalaya, Shillong, altitude 1475 m, 13-06-2023, introduced from East Khasi hills district and grown in BSI, ERC Campus, Y Mahesh 143882 (ASSAM).

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