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BULBOPHYLLUM STOCKSII (BENTH. EX HOOK.F.) J.J.VERM., SCHUIT. & DE VOGEL (ORCHIDACEAE): A NEW RECORD TO NORTH EAST INDIA

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ABSTRACT

Bulbophyllum stocksii (Benth. ex Hook.f.) J.J.Verm., Schuit. & de Vogel (Orchidaceae) is reported here as a new distributional record for North East India from Meghalaya. Detailed description, photo plate and other relevant information are provided here for its easy identification.

Key words : Distribution, Endemic, Garo Hills, Meghalaya.

Introduction

Orchidaceae represents the mega-diverse family of angiosperms in India (Adit *et al.*, 2021) comprises about 1239 species belonging to 155 genera (Singh *et al.*, 2020). Most orchid species in India are confined to the North East India and Western Ghats, attributed to the region's diverse terrain, favorable climate, and varying altitudes, which collectively create an ideal environment for orchid growth (Deka *et al.*, 2017). Northeastern India, part of Himalaya and Indo-Burma Biodiversity Hotspot (Mittermeier *et al.*, 2004), is home to around 876 orchid species within 151 genera, accounting for 70% of the country's orchid wealth (Meitei *et al.*, 2019; Pal *et al.*, 2022). *Bulbophyllum* Thouars is the most species rich genus in Orchidaceae (Kottaimuthu, 2024; Moonlight *et al.*, 2024) and distributed worldwide in tropical and subtropical regions (Pridgeon *et al.*, 2014), with 2197 accepted species globally (POWO, 2025). In India, Singh *et al.* (2020) reported 136 species of *Bulbophyllum*. Since then, new species and new records of *Bulbophyllum* have been discovered (Gogoi and Rinya, 2020; Gogoi and Hondiqui, 2021; Nayak *et al.*, 2024; Sâwmliana *et al.*, 2024; Tsering and Prasad 2020; Tsering *et al.*, 2024).

The National Orchidarium of BSI, ERC, Shillong was established in 1959 with the modest objective of consolidating the orchid wealth of North-Eastern region under cultivation and initiating research on it (Jain and

Kataki, 1976). During phenological studies on orchids at the National Orchidarium in Shillong, the authors came across a remarkable epiphytic orchid with dark brown pseudobulbs and triangular shaped flower, originally collected from Garo Hills in Meghalaya. Through critical study and consideration of literature it was identified as *Bulbophyllum stocksii* (Benth. ex Hook.f.) J.J.Verm., Schuit. & de Vogel, it is currently considered as a strict endemic orchid of Western Ghats (Jalal and Jayanthi, 2012; Nayar *et al.*, 2014; Singh *et al.*, 2015). A detailed description, photographic illustration and other relevant information are provided to facilitate easy and correct identification of this orchid in the field.

Nomenclature and Taxonomy

Bulbophyllum stocksii (Benth. ex Hook.f.) J.J.Verm., Schuit. & de Vogel, Phytotaxa 166(2): 111. 2014; S.K.Singh in S.S.Dash & A.A.Mao, Fl. Pl. India Annot. Checkl. Dicot. 3: 23. 2020; Karupp. & al., Orchids Tamil Nadu: 57. 2022. *Trias stocksii* Benth. ex Hook.f., Fl. Brit. India 5(16): 781. 1890; Lakshmin. in B.D. Sharma & al., Fl. Maharashtra: Monocot.: 62. 1996; M.R. Almeida, Fl. Maharashtra 5A: 89. 2009; Jalal, Orchids Maharashtra: 49: 2018 (Fig. 1).

Epiphytic herbs; rhizomes slender, terete, creeping, dirty brown. Pseudobulbs depressed globose to ovoid, dark olive green, faintly grooved. Leaves 2–4.5 × 0.9–2 cm, oblong or elliptic-oblong, coriaceous, dark olive green above, brown purple below; petiole 3–5 mm long.

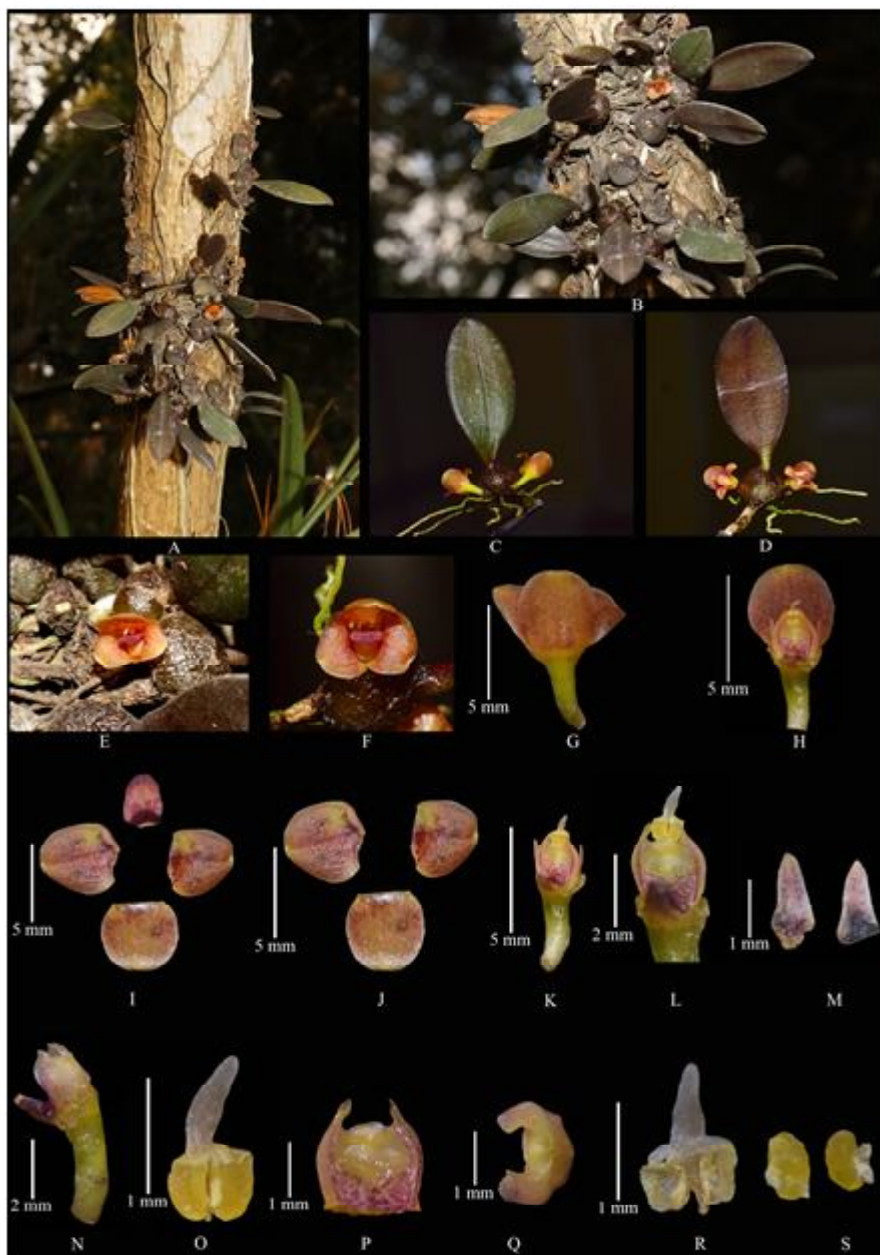


Fig. 1 : A & B: Habit; C & D: Inflorescence; E-I: Flower close up; I-J: Sepals dorsal and ventral view; K-L: Column; M: Petals; N: Column half side view; O: Anther; P & Q: Anther cap; S: Pollinium. <https://www.iplant.cn/info/Bulbophyllum%20oblongum?t=p>.

Racemes up to 1 cm long, 1-2-flowered. Flowers 1 cm across, purple-chrome yellow. Dorsal sepal ovate or broadly ovate-oblong, 7–9 × 5–6 mm, 7-veined; lateral sepals obliquely ovate, 3–4 mm long, sub-saccate, concave at base, adnate to foot of column. Petals oblong or narrowly linear-oblong, 2 × 0.75 mm, acute, with a broad base. Lip 4 mm, fleshy, mobile, chocolate colored, red punctate; the upper two third portion of the lip deflexed with tuberculate upper surface; lateral lobes of lip represented by 2-minute, apiculate, erect auricles; midlobe column 7–9 mm long, broadly 2-winged, produced below in to a distinct flat foot. Operculum 2–2.5 mm long,

papillose; Pollinia 4. Capsules ovoid-orbicular, 10–14 mm long, strongly ribbed.

Phenology : Flowering: January–February; Fruiting: April.

Distribution : India (Karnataka, Kerala, Maharashtra, Meghalaya (present report) & Tamil Nadu). Endemic.

Specimen examined : INDIA: Meghalaya, East Khasi Hills District, Botanical Garden, Wood land campus, 25.3443N, 91.5355E, 1484 m, 31 January 2025, R. Kottaimuthu & Y. Mahesh 143353 (ASSAM!).

Results and Discussion

According to Vermeulen *et al.* (2014), *Bulbophyllum stocksii* belongs to *Bulbophyllum* sect. *Trias*, it is characterized by the triangular shape of the flower and the prolonged operculum (Wonnapijit and Sriboonlert, 2015). Six species of *Bulbophyllum* sect. *Trias* viz., *B. bonaccordense* (C.S.Kumar) J.J.Verm., Schuit. & de Vogel, *B. disciflorum* Rolfe, *B. jejeosephii* J.J.Verm., Schuit. & de Vogel, *B. nasutum* Rchb.f., *B. oblongum* (Lindl.) Rchb.f. and *B. stocksii* (Benth. ex Hook.f.), J.J.Verm. were previously known from India (Singh *et al.*, 2020; Schuiteman *et al.*, 2022). Hegde and Rao (1987) documented *Trias stocksii* (= *Bulbophyllum stocksii*) based on the specimens collected from Koilajuli, West Kameng District, Arunachal Pradesh. Subsequently, Rao and Hegde (1988) admitted that the previously reported occurrence of this species in Arunachal Pradesh was a result of erroneous identification of *Trias nasuta* (a "*Bulbophyllum nasutum*"). Nevertheless, with the exception of Chowdhery (1998), this species has not been referenced in any literature concerning the orchids of Arunachal Pradesh or North East India (Sinha *et al.*, 2017; Singh *et al.*, 2020; Schuiteman *et al.*, 2022; Nyorak, 2023; Chowlu *et al.*, 2025). Therefore, the present collection from the Garo Hills in Meghalaya constitutes a new record for North East India and deserves significant phytogeographical importance.

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