



## *Bulbophyllum cherrapunjeensis* (Orchidaceae), a new species from Meghalaya, India

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*Bulbophyllum* Petit-Thouars (1822: tab. 3) is the largest orchid genus, comprising about 1900 species, largely distributed in tropical areas of both New and Old Worlds (Chen & Vermeulen 2009). There are about 100 species in India and about 63 in northeastern India (Augustine *et al* 2001, Misra 2007). Katak (1986) reported 28 species of *Bulbophyllum* from the state of Meghalaya. During our botanical exploration to Cherrapunjee, Meghalaya, in July 2013, we found a new species described below.

### *Bulbophyllum cherrapunjeensis* Barbhuiya & D.Verma, *sp. nov.* (Fig. 1)

This species differs from *B. sarcophylloides* Garay, Hamer & Siegerist in having a sheathed-rhizome, larger spatulate leaves, 10–11-flowered umbels, peduncles with bracts at the base as well as on the middle and comparatively larger greenish-yellow flowers.

Type:—INDIA. Meghalaya: East Khasi Hills District, Cherrapunjee, 25°17'52.71"N & 91°42'06.40"E, ca. 1460 m, 7 July 2013, Barbhuiya & Verma 112212 (holotype: ASSAM).

Epiphytic herbs. Rhizome completely enclosed by distichously imbricating sheathes, 3–5 mm thick. Pseudobulbs appressed to rhizome, discoid, compressed, 2–5 × 4–6 mm, covered with sheathes, which later becomes fibrous, inserted at intervals of 3–6 cm along rhizome. Leaves spatulate, 10.0–14.5 × 2.0–3.6 cm, apex rounded or sometimes retuse, contracted at the base to a thick cylindrical petiole 1.5–2.0 cm long. Inflorescence erect, 6–7 cm long, umbellate, 10–11 flowered. Peduncle glabrous, reddish, sheathed at base and middle; sheaths 3, brown, 2 basal, ovate to ovate-oblong, 6–12 × 5–6 mm, overlapping, 1 at the middle ovate-lanceolate, ca. 8 × 4 mm. Floral bracts lanceolate, light-green, 3.5–4.0 × 1.0–1.5 mm, apex acute. Pedicel and ovary greenish, 4–5 × ca. 1 mm. Flowers greenish-yellow, 1.2–1.3 cm long, glabrous. Dorsal sepal ovate, incurved, concave, weakly 4-nerved, 5.0–5.3 × ca. 4 mm, inner surface cardinal-red tinged basally and spotted at the middle, apex mucronulate, margin entire, greenish-yellow. Lateral sepals subfalcate, 6–7 nerved, 8.5–9.0 × 3.5–4.0 mm, base whitish, tinged with red, apex greenish, sub-acute. Petals ovate-triangular, white, trinerved, 3.5–4.0 × 2.0–2.2 mm, apex acute with a cardinal-red spot. Lip deltoid, incurved, 1.5–1.6 × ca. 1 mm, abaxially white, minutely grooved, adaxially mottled with cardinal-red spots, apex sub-acute. Column stout, 1.8–2.0 mm long; stelidia 2, filiform, ca. 0.8 mm long; foot curved 3.5–4.0 mm long, with red-blotches at the centre, truncate at apex. Anther-cap oblong, ca. 1.0 × 0.7 mm. Pollinia 4, subpyriform, light yellow, ca. 0.7 × 0.5 mm. Fruit not seen.

**Distribution and habitat:**—Currently known only from the type locality. The species was found growing on tree trunks in a coniferous forest at ca. 1460 m.

**Etymology:**—The specific epithet refers to the type locality, Cherrapunjee.

**Phenology:**—Flowering June through July.

**Conservation Status:**—Known from a single collection, hence its conservation status remains Data Deficient (DD).

**Notes:**—*Bulbophyllum cherrapunjeensis* has a small disc-like pseudobulb, pseudombellate inflorescence, lateral sepals from a divergent base converging apically and linear sharply pointed stelidia. It is similar to *B. sarcophylloides* Garay, Hamer & Siegerist (1994: 624) in having shorter scapes and entire dorsal sepal and petals. However, the latter is clearly distinct in having sheath-less rhizome, smaller ovate-elliptic or elliptic leaves, 5–6 flowered umbels and peduncle with bracts only at the base (Pearce & Cribb, 2002), whereas *B. cherrapunjeensis* is characterized by distichously imbricating sheathes on rhizomes, larger spatulate leaves, 10–11 flowered umbels,

peduncles with bracts at the base and as well as on the middle, greenish-yellow flowers and white petals with cardinal-red spot at the tip. It is also similar to *B. sarcophyllum* (King & Pantling 1898: 91) Smith (1912: 27), but the latter can be distinguished by the following: sheath-less rhizomes, oblong-lanceolate leaves, 3–7 flowered scapes equalling or longer than leaves and reddish-brown sepals and petals mottled with yellow (Pearce & Cribb, 2002).

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### References

- Augustine, J., Kumar, Y. & Sharma, J. (2001) *Orchids of India-II: Biodiversity and status of Bulbophyllum Thou.* Daya, Delhi, 113 pp.
- Chen, X. & Vermeulen, J.J. (2009) *Bulbophyllum*. In: Wu, Z.-G., Raven, P. & Hong, D.-Y. (eds.) *Flora of China*, vol. 25. Science Press, Beijing & Missouri Botanic Garden Press, St. Louis, USA, pp. 404–440.
- Garay, L.A., Hamer, F. & Siegerist, E.S. (1994) The genus *Cirrhopetalum* and the genera of the *Bulbophyllum* alliance. *Nordic Journal of Botany* 14: 609–646.  
<http://dx.doi.org/10.1111/j.1756-1051.1994.tb01080.x>
- Kataki, S.K. (1986) *Orchids of Meghalaya*. Government of Meghalaya, Shillong, 258 pp.
- King, G. & Pantling, R. (1898) The Orchids of the Sikkim-Himalaya. *Annals of the Royal Botanic Garden, Calcutta* 8: 1–342.
- Misra, S. (2007) *Orchids of India: A glimpse*. Bishen Singh Mahendra Pal Singh, Dehra Dun, 402 pp.
- Pearce, N.R. & Cribb, P.J. (2002) *The Orchids of Bhutan*. Royal Botanic Garden Edinburgh & Royal Government of Bhutan, 643 pp.
- Petit-Thouars & Du, A.A. (1822) *Histoire particuliere des plantes orchidees recueillies sur les trois îles australes d'Afrique, de France, de Bourbon et de Madagascar*. Petit-Thouars, Paris, 110 pp.  
<http://dx.doi.org/10.5962/bhl.title.492>
- Smith, J.J. (1912) *Bulbophyllum* Thou. sect. *Cirrhopetalum*. *Bulletin du Jardin Botanique de Buitenzorg, sér. 2*, 8: 19–29.