Additions to the orchid flora of Andaman and Nicobar Islands, India

Joju P. Alappatt
Department of Environment and Forests, Forest Training Institute, Wimberlygunj, Andaman and Nicobar Islands – 744206, India.
E-mail: jojualappatt@yahoo.com

Abstract

*Bulbophyllum odoratissimum* (Sm.) Lindl. and *Dendrobium spatella* Rchb.f. (Orchidaceae), so far known from Eastern Himalaya and northeast India are reported here as additions to the flora of Andaman and Nicobar Islands for the first time. Brief descriptions with illustration and photographs are provided for correct identification.

Keywords: *Bulbophyllum odoratissimum, Dendrobium spatella*, New Record, Orchidaceae

Introduction

*Bulbophyllum* Thouars and *Dendrobium* Sw., the two largest genera of the family Orchidaceae are represented by c. 1900 (Chen & Vermeulen, 2009) and c. 1580 species (Schuiteman, 2011), respectively. *Bulbophyllum* is distributed mainly in tropical regions of both Old and New Worlds, whereas *Dendrobium* is distributed from India across to Japan, south to Malaysia and Indonesia and east to Australia, New Guinea and the Pacific Islands. So far, 14 species of *Bulbophyllum* and 19 species of *Dendrobium* have been recorded in Andaman and Nicobar Islands (Pandey & Diwakar, 2008; Alappatt, 2013; Karthigeyan et al., 2014).

During the floristic explorations in South Andaman Island, a few specimens belonging to the genera *Bulbophyllum* and *Dendrobium* were collected, which after critical study identified as *Bulbophyllum odoratissimum* (Sm.) Lindl. and *Dendrobium spatella* Rchb.f., respectively. A thorough scrutiny of literature (Misra, 2007; Pandey & Diwakar, 2008; Karthigeyan et al., 2014) revealed that these species are hitherto not reported from Andaman and Nicobar Islands. Hence, in the present paper these species are reported as additions to the orchid flora of Andaman and Nicobar Islands. Brief descriptions along with illustrations and photographs are provided to facilitate easy recognition of these species.


Herb, epiphytic, to 15 cm long; rhizomes creeping, branched, c. 2 mm thick. Pseudobulbs 5.5–6.5 cm apart, subcylindric, 3–4 × c. 0.8 cm, slightly oblique, grooved at one side. Leaves sessile, oblong, to 8 × 2 cm, obtuse and slightly emarginate at apex, leathery. Racemes shortened, umbellate, arising from rhizome near base of pseudobulb, stout, to 7 cm, densely 7–10-flowered; peduncles c. 1.5 mm in diam., with 3 or 4 tubular sheaths of c. 6.5 mm long; floral bracts ovate-lanceolate, c. 5 mm long, acuminate at apex, membranous, whitish. Flowers c. 7 mm long, white, slightly fragrant; pedicel with ovary shorter than floral bracts, c. 5.5 mm long. Sepals and petals white, turning yellowish orange later in apical half. Sepals free, thick; dorsal sepal ovate or ovate-lanceolate, c. 5 × 1.5 mm; lateral sepals lanceolate, c. 6 × 2 mm, margins incurved from middle to apex and pubescent or subulate in shape, obtuse or subacute at apex. Petals subovate or elliptic, c. 1.5 × 1 mm, subobtuse at apex, thin. Lip slightly recurved, ligulate, c. 1.5 × 0.8 mm, fleshy, orange, with 2 densely minutely glandular-hairy ridges back and white-glandular hairs at margins, base of lip with a short claw attached to end of column foot, obtuse at apex. Column stout,
c. 1 mm, orange; foot c. 1 mm, with free part c. 0.5 mm; stelidia 2, c. 0.2 mm long. Anther cap nearly subglobose or cordate, finely papillate; pollinia 4. Capsules oblongoid, c. 10 mm long, ribbed.

Flowering: July–October.

Habitat: Occasional in mangroves and inland semi-evergreen and mixed deciduous forests, growing on the branches of Rhizophora apiculata Blume, Terminalia procera Roxb., Pterocarpus dalbergioides DC. and Lagerstroemia hypoleuca Kurz along with Dendrobium crumenatum Sw., D. anceps Sw., D. tenuicaule Hook.f., D. polyanthum Wall. ex Lindl. and Oberonia ensiformis (Sm.) Lindl. at elevation up to 25 m.
Distribution: Bhutan, Cambodia, China, India (Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and West Bengal), Laos, Myanmar, Nepal, Thailand and Vietnam.


Fig. 3. *Dendrobium spatella* Rchb.f.: a. Habit; b. Flower; c. Flower split opened; d. Floral bract; e. Dorsal sepal; f. Petals; g. Lip; h. Capsule. Drawn from *Joju P. Alappatt* JPA 483, PBL.
Herb, epiphytic, to 30 cm long. Stems tufted, erect, unbranched, upper part leafless, lower part compressed, trilateral with leaf sheaths, c. 5 mm in diam., base contracted with many nodes; internodes c. 1.4 cm long. Leaves distichous, ensiform, 2.5–3 × 0.7–1 cm, imbricating and with equitant sheaths, acute at apex, laterally compressed, fleshy or coriaceous, veinless, persistent. Inflorescence lateral, 1 or 2-flowered, leafless pseudoraceme; floral bracts c. 3 mm long. Flowers c. 1 cm long, creamy white; pedicels with ovary 1–1.5 cm long. Dorsal sepal ovate-oblong, c. 5 × 3 mm, acute at apex, 3-veined; lateral sepals obliquely ovate-triangular, c. 4 mm long, oblique at base, margins

Fig. 4. *Dendrobium spatella* Rchb.f.: a. Habit; b. Flowers; c. Flower close-up; d. Capsule; e. Voucher specimen (Joju P. Alappatt JPA 483, PBL).
close to column, acute at apex; mentum narrow, c. 1 cm long. Petals rhombic-elliptic, c. 5 × 1 mm, acute at apex, 1-veined. Lip rhomboid, recurved, c. 10 × 7 mm, white with yellowish tinge, adnate to apex of column foot; epichile fan-shaped, 7–8 mm wide, edges undulate with a narrow split at apex; callus subapical. Column c. 1 mm. Anther cap slightly toothed along apical margin; pollinia 4. Capsules ellipsoid, 8–10 mm long.

Flowering & fruiting: December–January.

Habitat: Rare in inland semi-evergreen and mixed deciduous forests, growing on the branches of *Terminalia procera* Roxb. along with *Dendrobium crumenatum* Sw., *D. tenuicaule* Hook.f. and *Oberonia ensiformis* (Sm.) Lindl. at an elevation of about 10 m.

Distribution: Bhutan, Cambodia, China, India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Nagaland), Laos, Malaysia, Myanmar, Thailand and Vietnam.

Specimens examined: INDIA, Andaman and Nicobar Islands, Middle Andaman Island, Dhaninallah, Betapur, 7.1.2013, Joju P. Alappatt JPA 478 (Herbarium Forest Training Institute, Wimberlygunj); South Andaman Island, Wrightmyo, 12.1.2013, Joju P. Alappatt JPA 483 (PBL). THAILAND, Ban Mek Zah, Lampun, A.F.G. Kerr 249 (L1506965, image!)

Notes: This species has been misidentified as *Dendrobium acinaciforme* Roxb. as it is often called so in the earlier literature (Hooker, 1890; Fl. Reipubl. Popularis Sin. 19: 142. 1999), when it was not realised that the real *D. acinaciforme* Roxb. is a different species from the Maluku Islands (the Moluccas), Indonesia (Yukawa & Ohba, 1999).

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Literature Cited


