

TWO NEW RECORDS OF THE FAMILY ORCHIDACEAE FROM BANGLADESH

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ABSTRACT

A critical examination and identification of the specimens of the family Orchidaceae collected from south-eastern part of Bangladesh resulted in two new records, viz. *Aerides roseum* Loddiges. ex. Lindl. and *Bulbophyllum cylindraceum* Wall. ex. Lindl. for Bangladesh. In the present communication detailed description with photographs, flowering time, ecology and geographical distribution of the species have been provided.

Key words: *Aerides roseum* and *Bulbophyllum cylindraceum*, Orchids, New record, Bangladesh.

INTRODUCTION

Aerides Lour. is an important genus of the family Orchidaceae. The genus *Aerides* was recognized in 1790 by Joao de Loureiro in his *Flora Cochinchinensis*. It is represented by more than 40 species, mostly epiphytic in nature (Hunt, 1973). The genus comprises 19 species distributed in Sri Lanka, India, Nepal, Bhutan, Myanmar, China, Thailand, Indo-China and Malaysia. Hooker (1890) reported 15 species from British India and one species, *A. odorata* Lour. from Sylhet and Chittagong. Prain (1903) reported only one species, *A. multiflora* Roxb. from North Bengal. Grant (1895) mentioned that *A. odorata* Lour. is a common species in Bengal. In all, 12 species are now found in India (Bose and Bhattacharjee, 1890). On the other hand, 10 species and 3 varieties of the genus have been reported from Burma (Grant, 1895). Ahmed *et al.*, (1989) have reported four species including two new records viz. *A. crispum* Lindl., *A. multiflora* Roxb., *A. odorata* Lour. and *A. suavissima* Lindl. of the genus *Aerides* from Bangladesh. These four species are also reported to occur in the updated checklist of the family Orchidaceae of Bangladesh by Huda (2008).

The largest genus *Bulbophyllum* Thou. of the family Orchidaceae with about 2000 species widely distributed throughout the tropics and sub tropics of the globe, particularly in Asia and Africa. According to Hooker (1890), there are about 79 species under the genus in India. Later Grant (1895) reported 41 species from the region of Burma, adjacent to Bangladesh. Holttum (1964) recorded 127 species from Malaya and Jayaweera (1981) reported only 11 species from Sri Lanka and 62 species of the genus have been reported

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from India by Pradhan (1979). Only two species *B. lilacinum* Ridl. and *B. lobbiai* Lindl. have been reported from Bangladesh by Hooker (1890) and Khan and Halim (1987) from Cox's Bazar and Chittagong. Ahmed *et al.* (1993) reported four species from Bangladesh viz. *B. lilacinum* Ridl., *B. lobbiai* Lindl., *B. neilgherrense* Wight. and *B. sessile* (Koen.) J.J.S. Ten species and one variety have also been reported to occur in Bangladesh by Huda (2008).

But *Aerides roseum* Loddiges *ex* Lindl and *Bulbophyllum cylindraceum* Wall. *ex* Lindl. have never been reported to occur in Bangladesh and therefore, in this study these two species are reported here as new angiospermic record for Bangladesh flora. Specimens of these two species were collected from Bandarban and Sylhet districts. The collected living plants of these species were grown at the orchidarium. After flowering, the flower was dissected and critically examined under the microscope and then identified with the consultation of the relevant literatures (Prain, 1903; Heinig, 1925; Cowan, 1926; Datta and Mitra, 1953; Sinclair, 1955; Pearce and Cribb, 2002). The voucher specimens of each species have been deposited at the Herbarium of Chittagong University (HCU). The detailed taxonomic description of these species have been provided below.

1. *Aerides roseum* Loddiges *ex* Lindl. and Paxton in Paxton, s Fl Gard. 2: 109 t. 60 (1852).

Aerides trigonum Klotzsch in Allg. Gartenzeitung 23: 177(1855); *A. fieldingii* B. S. Williams, Orch. Grow. Man. Ed. 2: 39 (1862); *A. williamsii* Warner, Select Orchid. Pl. 1: t. 21 (1862); *A. affine* var. *rosea* (Loddiges *ex* Lindl. and Paxton) Parish in Mason, Burmah 2: 198 (1883). *A. fieldingii* var. *williamsii* (Warner) Veitch, Man. Orchid. Pl. 7: 69 (1891).

Description: Epiphytic robust plant. Stem stout, covered with leaf sheaths, 10-25cm long. Leaves oblong, 2-lobed, deeply channeled above, keeled beneath, curved, jointed, 15-35 x 2.5-4.3 cm. Inflorescence arising from peduncle sheath, racemose or paniculate, densely many flowered; peduncles sheathed, 11-20 cm long; sheaths distant, tubular, broadly ovate, 6-9 mm long; rachis 25-35 cm long; floral bracts triangular, 3-6 mm long. Flowers 1.5-3.7 cm across; pedicels 1.1-1.9 cm long; dorsal sepals obovate, obtuse, 1.2-1.8 x 0.5-0.6 cm amethyst purple, suffused with white; lateral sepals broadly elliptic, decurrent on the column foot, 1.2-1.9 x 0.6-0.7 cm; white with a pale apical spot, lip amethyst-purple mottled with white. Petals obovate, obtuse, 1.2-1.8 x 0.6-0.7 cm; amethyst purple suffused with white; lip 3-lobed, deltoid to trowel-shaped, acute, slightly laterally compressed, spurred 1.4-1.6 x 0.8-1.1 cm; lateral lobes small, incurved; mid-lobe hastate, acute; spur funnel shaped, 4 mm long whitish. Column 5 mm long; anther cap beaked. Ovary 1.1-1.9 cm long. Fruit shortly stalked, ovoid, ridged, 1.5-1.8 x 0.6-0.7 cm. Flowering time: May to June (Plate 1 and Fig. 1).

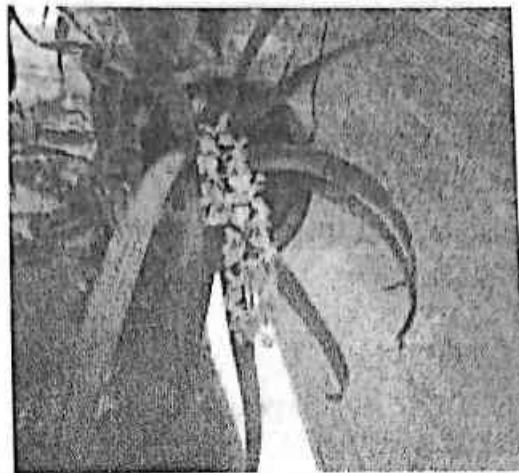


PLATE 1. *AERIDES ROSEUM* LODDIGES EX. LINDL.

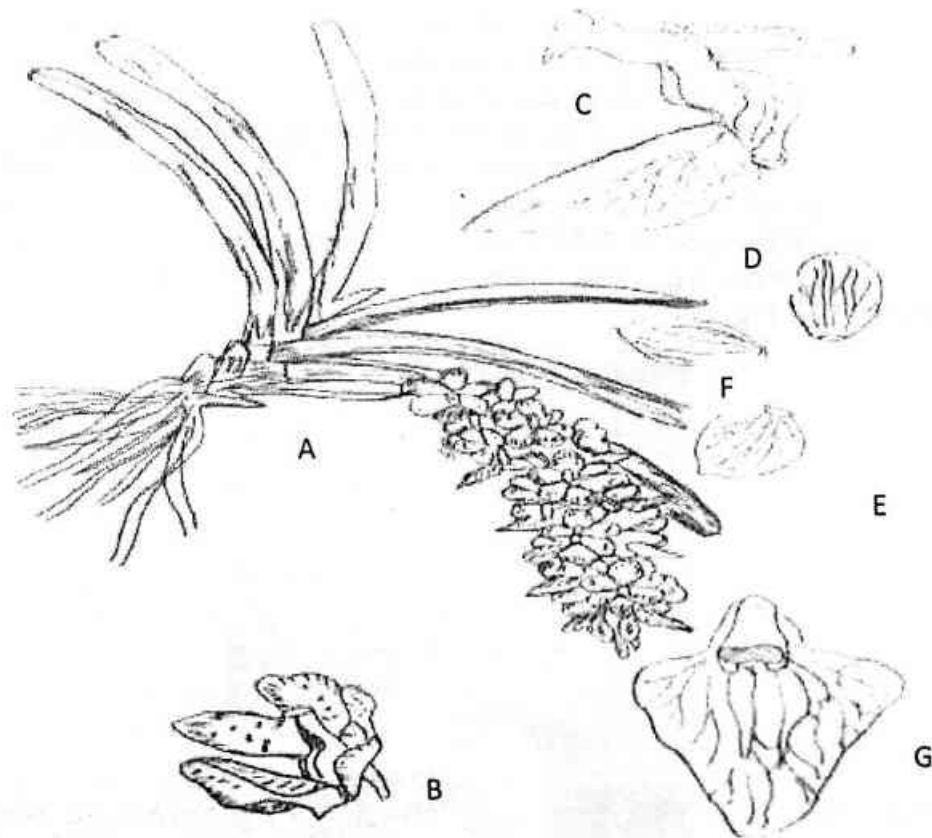


FIG 1. *AERIDES ROSEUM* LODDIGES EX. LINDL. A) HABIT; B) FLOWER; C) LIP, COLUMN AND OVARY; D) DORSAL SEPAL; E) LATERAL SEPAL; F) PETAL; G) LIP.

Habitat: The species was collected from the branches of a host plants *Mangifera indica* L.

Distribution: Bangladesh, India, Myanmar, China, Thailand, Laos and Vietnam. In Bangladesh it is distributed in Bandarban district.

Specimen Examined: Bandarban: Thanchi, Remakri, 10.04.2018, M. K. Huda, M.M. Hoque, and M. O. Alam 205 (HCU).

2. *Bulbophyllum cylindraceum* Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 53 (1830).

Bulbophyllum imbricatum Griff., Not. Pl. Asiat. 3:289 (1851); *Phyllorchis cylindraceum* (Wall. ex Lindl.) Kuntze, Revis. Gen. Pl. 2:677 (1891).

Description: Plant epiphytic, 14-25 cm tall; rhizome creeping; roots slender, clustered, basal, 0.5-1 mm across. Pseudobulbs attenuate, sheathed, 6-8 mm long; sheaths lanceolate, acute, brown, 1.5-4 cm long. Leaf 1, oblong-lanceolate, acute, 11.5-14 x 2.4-2.9 cm; petioles folded, 3.5-9 cm long. Inflorescence erect, cylindrical, racemose, with a large bract at base, densely many flowered; inflorescence bracts lanceolate, acute, involutes, brown, 1.7-2 x 0.7-0.9 cm; peduncles erect, sheathed, 13-14 cm long; sheaths distant, lanceolate, acute to acuminate, brown, 1.7 cm long; rachis 2.5-7 cm long; floral bracts ovate-lanceolate, acuminate, 3-4 x 1.5-2 mm. Flowers overlapping, 3-4 mm across, colour variable, pedicel 2-2.35 mm long; dorsal sepals white to lilac-purple or brown; ovate, acuminate, apex recurved, 3 x 2 mm; lateral sepals ovate, obtuse, unequal, inner edges straight, parallel, convent at base, glandular pubescent, 3.5-6 x 3.2-4 mm. Petals white to lilac-purple or brown, ovate, obtuse to truncate, 2 x 1 mm. Lip simple, fleshy, ovate, obtuse, sigmoidally deflexed, papillose, 2 x 1.2 mm; lip white or yellowish to lilac purple. Ovary 2-2.5 mm long. Column erect, apex 3-lobed, toothed, 1 mm tall, white. Flowering time: March (Plate 2 and Fig. 2).



PLATE 2. *BULBOPHYLLUM CYLINDRACEUM* WALL. EX. LINDL.

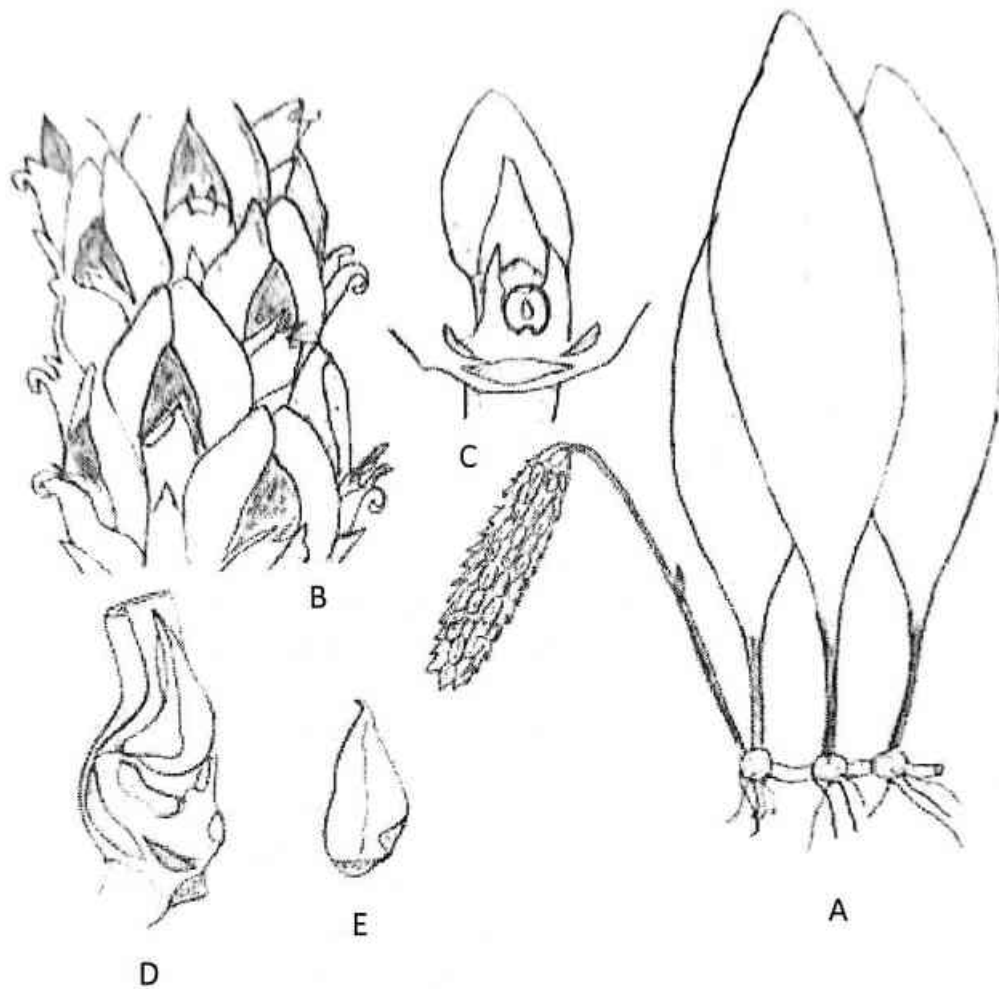


FIG 2. *BULBOPHYLLUM CYLINDRACEUM* WALL. EX. LINDL. A) PLANT; B) INFLORESCENCE; C) LIP AND COLUMN; D) FLOWER; F) PETAL.

Habitat: The species grows on different tree species. This species prefers to grow on the trunk and branches of old trees. The species found to occur on *Lagerstroemia speciosa* (L.) Pers.

Distribution: Bangladesh, Nepal and India. In Bangladesh, it is distributed in Sylhet district.

Specimen Examined: Sylhet: Jaintapur, 11.10.2018; M. K. Huda, M.M. Hoque and M. O. Alam 206 (HCU).

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