TWO NEW RECORDS OF THE GENUS BULBOPHYLLUM THOU. (ORCHIDACEAE) FOR BANGLADESH

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Abstract

Bulbophyllum rufinum Rchb.f., and Bulbophyllum crassipes J. D. Hooker of the family Orchidaceae have been reported here as new angiospermic record for Bangladesh flora. Detailed examination with description, flowering time, ecology, and geological distribution of the species has been provided here with illustration and photographs.

Introduction

ORCHIDACEAE REPRESENTS the highly evolved family comprising 25,000-35,000 species and 600-800 genera (Dressler, 1993). The largest number of orchids is found in tropical America comprising 360 genera and 8,266 species while tropical Asia comes second with 250 genera and 6800 species (Dressler, 1990). In Indian flora, this is the second largest family represented with 130 genera and over 880 species distributed mainly in Eastern Himalayas, Western Ghats, and Khasia Hills (Sharma, 2000). Bangladesh is also rich in orchids with 179 taxa under 70 genera (Huda, 2008). Now the family is recognized to be represented in the flora by 72 genera and 188 species; of these, 117 species under 41 genera are epiphytic in nature and 71 species under 33 genera are terrestrial (Rahman et al., 2017). Most of the orchid species are distributed mainly in the hilly areas of greater Sylhet, Chittagong, Chittagong Hill Tract, and Mymensingh district (Alam et al., 1993; Zaman and Sultana, 1983).

The largest genus Bulbophyllum Thou. of orchids with about 2000 species is 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. Holtum (1964) recorded 127 species from Malaya. Jayaweera (1981) reported only 11 species from Sri Lanka, and 62 species of the genus have been reported from India by Pradhan (1979). Only two species B. lilacinum Ridley and B. lobbi Lindl. have been reported from Bangladesh by Hooker (1890), Khan and Halim (1987), from Cox's Bazar and Chittagong. Ahmed et al. (1993) reported four species from Bangladesh i.e. B. lilacinum Ridley., B. lobbi 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).

In the present study, two species of the Bulbophyllum Thou. have been identified as new record from Bangladesh. The vegetative plants of these two species were collected from Chattogram and Bandarban district of Bangladesh. The collected plants were grown at the orchidarium. After flowering of the both species, the flowers of each species were dissected and critically examined under microscope and then identified with the consultation of the relevant literature (Heinig, 1925; Hooker, 1890; Lindley, 1830-40; Pearce and Cribb, 2002; Prain, 1903; Seidenfaden, 1982; Sinclair, 1956). The voucher specimens of each species have been deposited at the Herbarium of Chittagong University (HCU).

Taxonomic Description

Bulbophyllum rufinum Rchb.f., Xenia Orchid. 3: 45 (1881)
Phyllorkis rufina (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 677 (1891)

Rhizome stout, 5-6 mm in diameter, with scale like sheaths, rooting from base of pseudobulbs. Pseudobulbs 8 cm apart on rhizome, pale yellow when dried, ovoid-conic, 2.5-4 cm, 1.5-2 cm in diameter, with a terminal leaf. Petiole 1 cm; leaf blade oblong, 11-20.5 cm × 3 cm, fleshy or thick leathery, base contracted into petiole, apex obtuse, and slightly emarginate. Scape from base of pseudobulb, slightly arching, 10 cm, often slender; raceme 8 cm, sparsely many flowered; peduncle with several sheaths at base; floral bracts narrowly oblong-lanceolate, 7-20 mm, apex obtuse. Flowers yellow, thinly textured. Dorsal sepal ovate-lanceolate, 6 cm × 2 mm, apex acuminate; lateral sepals ovate-lanceolate, 9 mm × 2.2 mm, their lower edges connate to each other, upper edges incurved, apex acute. Petals obliquely ovate-lanceolate, 2 mm × 0.9 mm, apex caudate; lip ligulate, 3 mm × 1 mm, margins finely papillate, grooved at adaxial base, with 2 auricles on both basal sides, apex obtuse;
auricles falcate, 0.5 mm, apex acute. Column 1.8 mm; stelidia subulate, 1 mm; foot 1.5 mm, with free part 0.5 mm. (Figs. 1-2).

Flowering Period
October to November.

Ecology
This epiphytic orchid was collected in vegetative stage from Gmelina arborea (Roxb.) DC. tree at high altitude.

Distribution
Bangladesh, Nepal, NorthEast India, Myanmar, and Thailand. In Bangladesh, the species found to occur in Bogalake, Bandarban.

Specimen Examined
Bandarban; Ruma, Bogalake, 10.04.2019, M. M. Hoque, M. K. Huda, and M. O. Alam 210 (HCU).

Bulbophyllum crassipes J. D. Hooker, Fl. Brit. India 5: 760. (1890)


Rhizome stout, 3-4 mm in diameter, rooting from base

Flowering Period
October.

Ecology
This epiphytic orchid was collected in vegetative stage from Diterocarpus turbinatus Gaertn.f. tree at high altitude.
Distribution
Bangladesh, Bhutan, NorthEast India, Malaysia (Penang), Myanmar, and Thailand. In Bangladesh, the species found to occur in Dudhpukuria-Dhopachari Wildlife Sanctuary.

Specimen Examined

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References


