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A NEW RECORD OF *BULBOPHYLLUM* SECTION *AESCHYNANTHOIDES* FROM VIETNAM

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ABSTRACT. *Bulbophyllum hainanense* is an addition to the Flora of Vietnam. Previously, Vietnamese material of this species was listed as *Bulbophyllum hymenanthum*, a similar-looking species. This paper provides a description and illustration of the Vietnamese material of *B. hainanense*.

KEY WORDS: *Bulbophyllum hainanense*, Hon Ba nature reserve, new record, Vietnam

Introduction. The genus *Bulbophyllum* Thouars is one of the largest plant genera, with well over 2,000 species in the tropics and subtropics worldwide (Pridgeon *et al.* 2014). So far, 123 species in 14 sections have been recorded for Vietnam (Averyanov & Averyanova 2003, Averyanov *et al.* 2016, Truong & Sridith 2016, Averyanov *et al.* 2017, Nguyen & Averyanov 2017, Averyanov *et al.* 2018). We add another species to the list: *B. hainanense* Z.H.Tsi, found in Hon Ba nature reserve, Khanh Hoa province.

According to Pridgeon *et al.* (2014) it belongs to section *Aeschynanthoides* Carr (1930). Species of this section resemble species of section *Stachysanthes* (Blume) Averyanov (1994) in the sense that both have minute pseudobulbs, racemose inflorescences, and flowers of rather simple structure. The distinguishing feature of Sect. *Aeschynanthoides* is the node displacement at the base of the flower: the floral bract is attached well below the basal node of the pedicel (Fig. 1C, left). In section *Stachysanthes* the basal node of the pedicel is at the same level with the floral bract attachment. In addition, the flowers are lemon yellow, and/or purple staining predominate in Sect. *Aeschynanthoides*, whereas the flowers in species of section *Stachysanthes* are usually white or creamy yellow, less frequently ochre-orange or brick-red. Purple staining occurs only sporadically in section *Stachysanthes*. Because of an error in the key to the species in Chen and Vermeulen (2009), both *B. drymoglossum* Maxim. and *B. hainanense* were incorrectly placed in section *Stachysanthes* instead of *Aeschynanthoides*.

So far, only a single species of sect. *Aeschynanthoides* was known from Vietnam: *B. hymenanthum* Hook.f. (Seidenfaden 1992, Averyanov 1994, Averyanov & Averyanova 2003). *Bulbophyllum hainanense* is the second species recorded for Vietnam. We present pictures of both for comparison.

Materials and methods. The description of *Bulbophyllum hainanense* is based on the living material found in Hon Ba nature reserve, Khanh Hoa province. The measurements and description were prepared from living plants. Material was preserved in 70% ethanol and stored at VNM herbarium (ITB – Ho Chi Minh City). All the photos were taken with a Canon 600D fitted with an EF-S 60mm f/2.8 Macro USM lens. The information and the pictures of *B. hymenanthum* (Fig. 2) from Vietnam are provided by Mr. Van Canh Nguyen from Nam Nung Nature Reserve. Terminology for the morphological description follows Beentje (2012).

TAXONOMIC TREATMENT

Bulbophyllum hainanense Z.H.Tsi (Fig. 1)

TYPE: China. Hainan: on a tree in forest, 500 m, Nov. 1978, Z.H. Tsi 1 (holotype: PE!).

Epiphytic herb. Rhizome creeping, slender. Pseudobulb minute, not or hardly thicker than the rhizome. Leaves sessile, fleshy, broadly elliptic, ca. 10–12 mm long, 6–8 mm wide, apex acute. Inflorescence from the base of the pseudobulbs, erect, ca. 2.5 cm long; 1–2-flowered; peduncle bracts 3, with 1 approx.

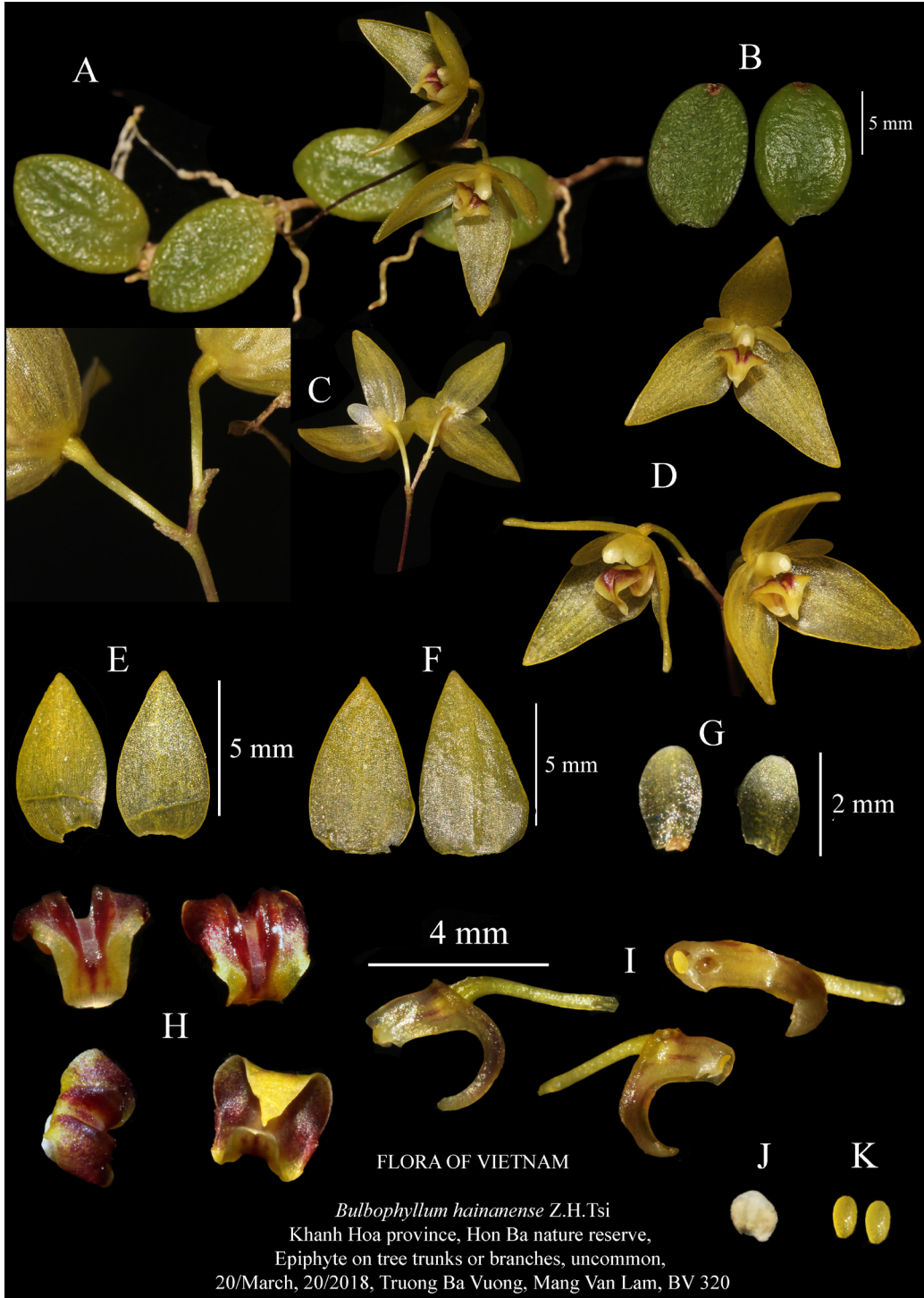


FIGURE 1. *Bulbophyllum hainanense* Z.H. Tsi. A. Flowering plant; B. Leaves; C. Pedicel and flowering bract; D. Opening flowers; E. Dorsal sepal; F. Lateral sepals; G. Petals; H. Labellum in views; I. Column and pedicel; J. Anther cap; K. Pollinia. Photos by TRUONG Ba Vuong, 2018.



FIGURE 2. *Bulbophyllum hymenanthum* Hook.f., two views. Photos by NGUYEN Van Canh, 2018.

half-way the peduncle, the longest *ca.* 1.8 mm long. *Rachis* *ca.* 2 mm long, floral bracts *ca.* 1.5 mm long. *Flowers* wide open, sepals and petals yellow, labellum yellow with purple ridges; pedicel plus ovary 6.0–6.5 mm long, basal node *ca.* 0.4 mm above the floral bract attachment. *Dorsal sepal* ovate, *ca.* 6 mm long, 4 mm wide apex acute; *lateral sepals* free ovate, *ca.* 7 mm long, 4 mm wide, apex acute. *Petals* elliptic, *ca.* 2 mm long, 1 mm wide, apex rounded. *Labellum* distinctly curved, thin, ovate, tapering towards the apex, acute, glabrous; adaxially with two ridges starting near the base and continuing up to 2/3 along the length of the lip, channeled in between. *Column* yellow, *ca.* 1.8 mm long, stelidia deltoid, acute, with a small, triangular, acute tooth along the lower margin. *Anther cap* with a slight, rounded ridge towards its base. *Pollinia* 2, elliptic.

DISTRIBUTION IN VIETNAM: Hon Ba nature reserve only, in Khanh Hoa province (BV 320, VNM). Distribution elsewhere: China, Hainan.

ECOLOGY: Epiphytic, usually on tree trunks, sometimes on branches, above 1000 m a.s.l.

CROSS DIAGNOSIS: Within section *Aeschynanthoides*, it shares the presence of two ridges on the adaxial side of the lip with *B. drymoglossum* Maximovich (1887), but differs by the tapering, acute lip apex. It differs from *B. hymenanthum* (the other species of section *Aeschynanthoides* native to Vietnam, Fig. 2) by the minute, triangular tooth along the lower edge of the stelidia; in *B. hymenanthum* a conspicuous, rounded wing is present.

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