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NOTE

New taxa of *Bulbophyllum* (Orchidaceae) in the Flora of Vietnam

Minh Quan DANG[1], Leonid V. AVERYANOV[2], Tatiana V. MAISAK[2], Van Huong BUI[3], Van Son DANG[4,5], Quang Tam TRUONG[5], Ba Vuong TRUONG[4,5,*]

1. School of Education, Can Tho University, 3/2 Street, Ninh Kieu District, Can Tho City, Vietnam. dmquan@ctu.edu.vn
2. Komarov Botanical Institute, Russian Academy of Sciences, Prof. Popov Street 2, 197376, St. Petersburg, Russia. av_leonid@mail.ru; maisak@mail.ru
3. Vietnam National Museum of Nature, Vietnam Academy of Science and Technology, No. 18, Hoang Quoc Viet, Cau Giay District, Hanoi, Vietnam. bvhuong90@gmail.com
4. Graduate University of Science and Technology, Vietnam Academy of Science and Technology, 18 Hoang Quoc Viet, Cau Giay District, Ha Noi, Vietnam.
5. Institute of Tropical Biology, Vietnam Academy of Science and Technology, 85 Tran Quoc Toan, District 3, Ho Chi Minh City, Vietnam. dvsonitb@gmail.com; truongtam58@yahoo.com
[*]Corresponding author's E-mail: bavuong2019@yahoo.com

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ABSTRACT: A new variety, *Bulbophyllum blaoense* var. *flavescences* (*B*. sect. *Cirrhopetaloides*) discovered in southern Vietnam is described here. In addition, two species, *B. caudatum* and *B. kwangtungense* (*B*. sect. *Desmosanthes*) found in the northern part of the country are firstly recorded and documented for the flora of Vietnam. Morphological description and illustrations based on collected materials, data on phenology, distribution, and taxonomic notes are presented for newly recorded taxa. Lectotypes for *B. bicolor* and *B. caudatum* are proposed.

KEY WORDS: *Bulbophyllum* sect. *Cirrhoptaloides*, *Bulbophyllum* sect. *Desmosanthes*, Indochina, plant geography, plant taxonomy.

INTRODUCTION

Bulbophyllum Thouars novelties reported here were collected mainly during fieldworks in 2000 and 2020. They belong to *Bulbophyllum* section *Cirrhopetaloides* Garay, Hamer & Siegerist and *B.* sect. *Desmosathes* (Blume) J.J. Sm. *Bulbophyllum* section *Cirrhopetaloides* includes 19 known species distributed in India, Sri Lanka, China, Taiwan, Japan, Myanmar, Thailand, Laos, Vietnam, The Philippines, Peninsular Malaysia, Sumatra, and Borneo. The species of this section are characterized by 1-leaved pseudobulbs; inflorescence with one to many flowers arranged in sub-umbellate raceme; free median sepal with erose, dentate, or fimbriate margin; lateral sepals 2–30 cm long, with entire margin, which upper margins turned inward, free or adnate to each other; petals denticulate, or fimbriate, and lip simple, entire, longer than 5 mm. In Vietnam, this section contains 6 species, i.e., *B. bicolor* Lindl., *B. blaoense* Aver. & Tich, *B. frostii* Summerh., *B. funingense* Z.H. Tsi & H.C. Chen, *B. putidum* (Teijsm. & Binn.) J.J. Sm., and *B. wendlandianum* (Kraenzl.) Dammer. *Bulbophyllum blaoense* Tich & Diep ex Aver. & Tich var. *flavescens* Vuong, Aver., Q.T. Truong & V.S. Dang is described here as a variety new for science. It differs from the type by narrower, yellow sepals without purple stripes, fewer hairs on dorsal sepal and petals, and a smooth lip.

Bulbophyllum sect. *Desmosanthes* includes 68 accepted species distributed in India, China, Taiwan, Thailand, Myanmar, Laos, Cambodia, Vietnam, the Philippines, Sumatra, Java, and Sulawesi. In Vietnam, 19 species of this section were documented before our study. They are: *B. astelidum* Aver., *B. boulbetii* Tixier, *B. cauliflorum* Hook.f., *B. concinnum* Hook.f., *B. corallinum* Tixier & Guillaumin, *B. evrardii* Gagnep., *B. gyrochilum* Seidenf., *B. laxiflorum* (Blume) Lindl., *B. odoratissimum* (Sm.) Wall., *B. ovatum* Seidenf., *B. pinicolum* Gagnep., *B. protractum* Hook. f., *B. semiteretifolium* Gagnep., *B. sinhoense* Aver., *B. simondii* Gagnep., *B. stenobulbon* C.S.P. Parish & Rchb.f., *B. sutepense* (Downie) Seidenf. & Smitinand, *B. tixieri* Seidenf., and *B. trichocephalum* (Schltr.) Tang & F.T. Wang. They may be recognized by creeping or pendulous rhizomes; 1-leaved pseudobulbs; sub-umbellate raceme bearing from 2 to many flowers arising from the base of pseudobulbs; free sepals; 1 or 3-veined petals; simple lip, and column usually having teeth-like lateral wings (Pridgeon *et al.*, 2014, Vermeulen *et al.*, 2015). Two unusual specimens of the section were collected in Ha Giang Province in 2020. After a detailed analysis of the available literature and herbaria accessible on-line (P, PE, K, LE), we identified our specimens as *B. kwangtungense* Schltr. and *B. caudatum* Lindl., which represent new records for the flora of Vietnam.

Below we provide descriptions of studied taxa with data on their phenology, distribution, and short taxonomic notes concerning their morphological segregation from closely related species.

MATERIALS AND METHODS

The measurements and description of the studied species are based on living plants. Voucher specimens and additional alcohol-preserved material are stored at VNM Herbarium (the Institute of Tropical Biology - Ho Chi Minh City). The terminology for the morphological description follows Beentje (2012).

TAXONOMIC TREATMENT

Bulbophyllum sect. ***Cirrhopetaloides*** Garay, Hamer & Siegerist, 1994, Nord. Journ. Bot. 14, 6: 625. ***Type:*** *B. cirrhopetaloides* Griff., 1851, Not. Pl. Asiat. 3: 290.

Identification key to related species of "*Bulbophyllum bicolor*" group

1a. Pseudobulbs ovoid, 2–3 cm tall …….. 2
1b. Pseudobulbs broadly ovoid or globular, 4.5–9 mm tall …….. 3
2a. Dorsal sepal and petals ciliate, base of lip glabrous …… 1. ***B. bicolor***
2b. Dorsal sepal and petals entire, base of lip ciliate ….. 3. ***B. funigense***
3a. Tepals yellow with many purple stripes, dorsal sepal and petals densely fimbriate, lip rugose and papillose at base ….……. ……..…….. 2a. ***B. blaoense*** var. ***blaoense***
3b. Tepals uniformly yellow, dorsal sepal and petals sparsely ciliate, lip smooth …….. 2b. ***B. blaoense*** var. ***flavescens***

1. ***Bulbophyllum bicolor*** Lindl., 1830, Gen. Sp. Orch. Pl.: 49.

Described from China ("Hab. In China; Reeves"). ***Lectotype:*** (proposed here): icon. "Chinen drawing Library of Art. Soc. *Bulbophyllum bicolor*" (K000342242 http://www.kew.org/herbcatimg/949321.jpg).

Habitat and phenology. Creeping epiphyte and lithophyte. Primary and old secondary broad-leaved, evergreen, lowland and submontane forests on limestone at elevations 100–1000 m a.s.l. Flowers in May–June.

Distribution. N Vietnam (Dien Bien, Ha Giang, and Thanh Hoa provinces), N Thailand, S China, Laos (Houphan Province).

Note. For a long time, the species was regarded as an endangered (EN) endemic of Hong Kong (Barretto *et al*., 2011). However, present data provide evidence about the wide distribution of this species in northern Indochina. Moreover, in some areas of northern Laos and Vietnam it is documented as rather common plant.

Studied specimens. Vietnam: Dien Bien Province, May-June 2010, *Phan Ke Loc CXC 005* (LE01055231 http://en.herbariumle.ru/?t=occ&id=6919, LE01073440, http://en.herbariumle.ru/?t=occ&id=17265); Ha Giang Province, Dong Van District, Van Chai Commune, 3 March 2021, *Truong Ba Vuong BV 1115* (VNM00024323, LE01090167 http://en.herbariumle.ru/?t=occ&id=75965); Thanh Hoa Province, Thuong Xuan District, Van Xuan Municipality, Hang Cao village, Xuan Lien Nature reserve, 8 November 2013, *Averyanov et al. CPC 6892* (LE01055232 http://en.herbariumle.ru/?t=occ&id=6920, LE01087002 http://en.herbariumle.ru/?t=occ&id=18097). Laos, Houphan Prov., Viengxay Distr., Vieng Xai village, 7 April 2015, *N.T. Hiep et al. LA-VN 1152a TM 1271* (LE01055230 http://en.herbariumle.ru/?t=occ&id=6918, LE01073445 http://en.herbariumle.ru/?t=occ&id=17270, LE01073446 http://en.herbariumle.ru/?t=occ&id=17271).

2. ***Bulbophyllum blaoense*** Tich & Diep ex Aver. & Tich, 2015, Wulfenia 22: 142.

2a. ***Bulbophyllum blaoense*** var. ***blaoense***

Described from S Vietnam ("Lam Dong Province, Blao"). ***Holotype:*** 4/2000 *Tich 00.04.00* (Herbarium of Department of Botany and Ecology, National University of Vietnam in Ho Chi Minh City).

Habitat and phenology. Creeping branch epiphyte. Primary and old secondary broad-leaved, evergreen, submontane forests on shale, sandstone and granite at elevations 800–900 m a.s.l. Flowers in March–April.

Distribution. S Vietnam (Lam Dong and Dak Nong provinces). Endemic.

Studied specimens. Vietnam: Dak Nong Province, Dak Song District, Nguyen Van Canh in 2014, flowered and collected in cultivation in 26 April 2015, *L. Averyanov, T. Maisak, AL 26* (LE01073457 http://en.herbariumle.ru/?t=occ&id=172820, LE01055242 http://en.herbariumle.ru/?t=occ&id=6929); Lam Dong Province, Bao Lam District, Loc Bac Municipality, 7 Apr. 2013, *Nuraliev M.S. et al., 789* (LE01055243 http://en.herbariumle.ru/?t=occ&id=6930, LE01073460 http://en.herbariumle.ru/?t=occ&id=17286, LE01073466 http://en.herbariumle.ru/?t=occ&id=17287); Lam Dong Province, Bao Loc District, 16 March 2019, *Truong Ba Vuong, Ngo Quang Dang, BV 995* (LE01090169 http://en.herbariumle.ru/?t=occ&id=77442); Vietnam, sine loc., *Vu Dinh Anh s.n.* (LE01073461 http://en.herbariumle.ru/?t=occ&id=17560).

2b. ***Bulbophyllum blaoense*** var. ***flavescens*** Vuong, Aver., Q.T. Truong & V.S. Dang, **var. nov.**

Fig. 1

Type: Vietnam, Lam Dong Province, Bao Loc Province, Dai Lao Commune, Bao Loc Pass, 4 May 2020, *Truong Ba Vuong, Truong Quang Tam, Dang Van Son, BV 745* (holotype, VNM00032282!, analytical photo plate of living plant used for the type preparation, LE01088963 http://en.herbariumle.ru/?t=occ&id=65486).

Description. Epiphytic herb. Rhizome creeping, semi-woody, covered by brownish sheaths, with roots placed below pseudobulbs. Pseudobulbs 1-leaved, narrowly conoid, 5–9 mm tall, 2.5–3 cm apart. Leaves petiolate; petiole 3–3.5 cm long; leaf blade oblong-lanceolate, 11–11.5 cm long, 2–2.5 cm wide, obtuse or slightly retuse. Inflorescence sub-umbellate raceme; scape arising from base of pseudobulbs, yellowish-green, erect, ca. 10.5 cm long, at base covered by 2–3 tubular acute bracts, ca. 1.9 cm long, bearing 4 flowers opening simultaneously; floral bracts acute, 8–10 mm long. Pedicel and ovary longer than floral bract, greenish yellow, 2–2.2 cm long. Flowers not open widely; median sepal yellow outside, with few purple marks and stripes inside, lateral sepals yellow with 4–5 purple stripes at base; petals almost uniformly yellow outside, with purple marks inside; lip orange yellow. Median sepal concave, narrowly elliptic, acute, ca. 12 mm long, 5 mm wide, finely sparsely ciliate along the margin; lateral sepals, narrowly triangular, falcate, ca. 24 mm long, 5 mm wide at base, distally attenuate, twisted at base with upper margins connate in apical part, lower margin almost free.

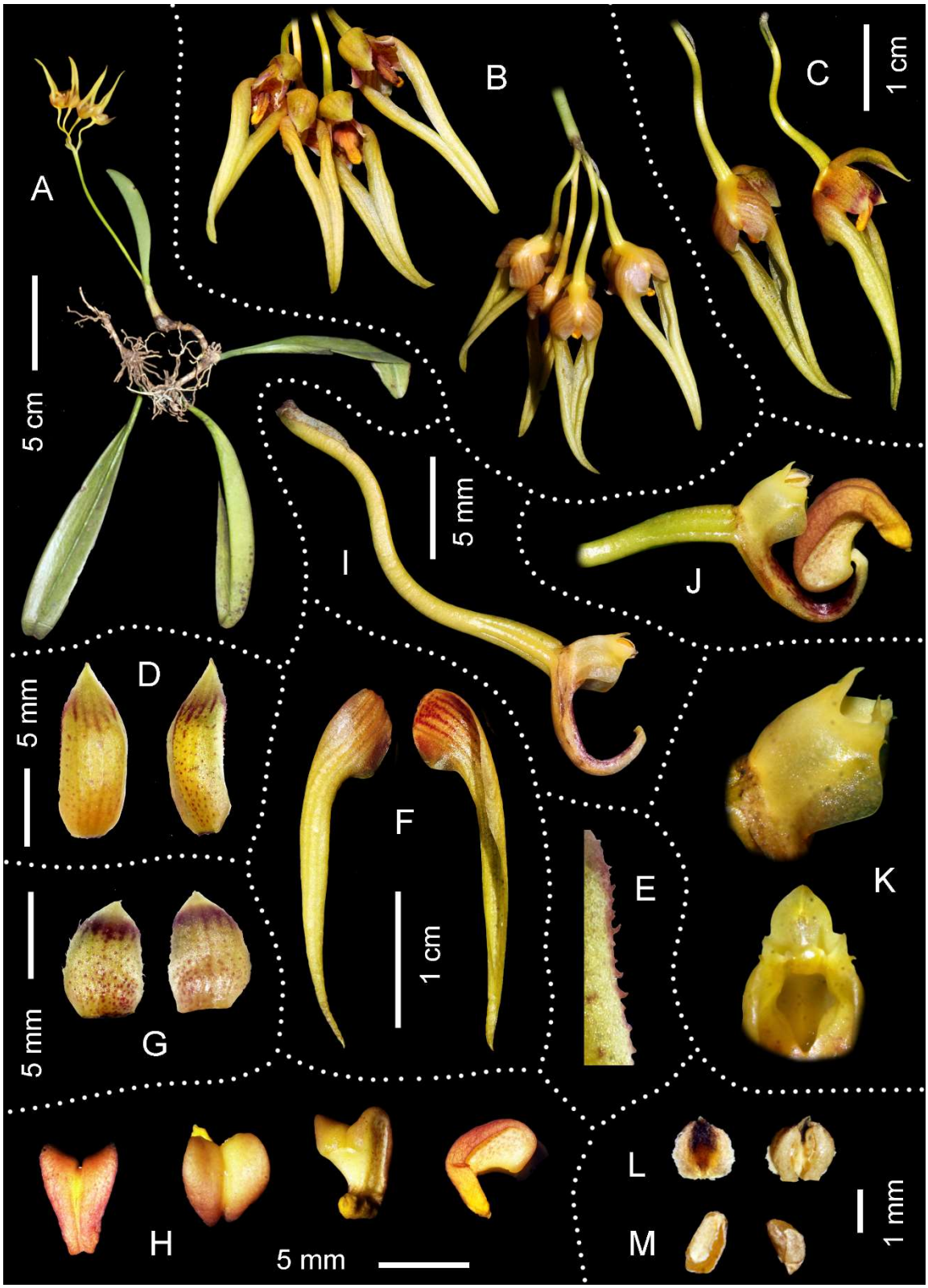


Fig. 1. ***Bulbophyllum blaoense*** Aver. & Tich var. ***flavescens*** Vuong, Aver., Q.T. Truong & V.S. Dang. **A.** Flowering plant. **B**. Inflorescences. **C.** Flower, side view and view from behind. **D.** Median sepal. **E.** Margin of median sepal. **F.** Lateral sepals. **G.** Petals. **H.** Lip, views from different sides. **I.** Pedicel, ovary and column, side view. **J.** Ovary, column and lip, side view. **K.** Column, frontal and side views. **L.** Anther cup, view from above and from below. **M**. Pollinia. All photos from *BV 745* by Truong Ba Vuong, correction and design by L. Averyanov and T. Maisak.

Petals ovate, 5–8 mm long, 4–5 mm wide, acute to shortly mucronate, slightly oblique, often recurved at apex, margin sparsely ciliate. Lip triangular, strongly recurved, ca. 7 mm long, 3.5 mm wide (at base), adnate to the column foot by white appendage, apex rounded with small mucro. Column ca. 3 mm tall, with prominent semicircular forward directed lateral wings; stelidia broadly triangular, obtuse, erect; rostellum rounded, erect or somewhat forward directed, stigma concave, deltoid ovate; pollina 4, falcate, without stipe and viscidium; column foot ca. 7 mm long, strongly incurved in apical part. Fruits not seen.

Etymology. The epithet refers to the yellow color of flowers.

Habitat and phenology. Trunk or branch epiphyte. Evergreen broad-leaved forests at elevations about 1000 m a.s.l. Flowers in May.

Distribution. S Vietnam (Lam Dong Province). Endemic.

Note. The new variety differs from the type by uniformly yellow sepals (vs. sepals yellow with many purple stripes), narrowly elliptic, sparsely ciliate median sepal (vs. median sepal broadly ovate, densely fimbriate), lateral sepals 24 mm long, 5 mm wide (vs. lateral sepals up to 32 mm long, 6 mm wide), petals sparsely ciliate (vs. petals margin densely ciliate), and lip yellow orange, smooth at the base, with hardly visible keels (vs. lip dull yellowish, speckled with pale purple, densely papillose, with 2 low keels adaxially). The data for morphological comparison are obtained from Averyanov *et al.* (2015) and database of Herbarium LE (http://en.herbariumle.ru/?t=occ&s=bulbophyllum%20blaoense&f=%5Ball%5D).

Bulbophyllum blaoense var. *blaoense* looks also similar to *B. bicolor* Lindl. but can be distinguished by the broadly ovoid or globular pseudobulbs 4.5–9 mm tall and wide (vs. ovoid pseudobulbs 2–2.5 cm tall × 1.2–1.5 cm wide), scape up to 12 cm long (vs. 7 cm long), lip adaxial densely papillose (vs. lip glabrous). Morphological characters accepted here are based on the data reported by Averyanov *et al.* (2015), Gale *et al.* (2010), and data base of Herbarium LE (http://en.herbariumle.ru/?t=occ&s=bulbophyllum%20bicolor&f=%5Ball%5D).

3. ***Bulbophyllum funingense*** Z.H. Tsi & H.C. Chen, 1981, Bull. Bot. Res., Harbin 1: 112.

≡ *Bulbophyllum bicolor* var. *funingense* (Z.H. Tsi & H.C. Chen) Aver., 2016, Taiwania 61: 324.

Described from SW China. ***Type:*** CHINA, Yunnan, Funing, 1000 m a.s.l. 22 April 1940, *Wang C.W. 88792* (holotype PE00027313 photo!, isotype PE00201501 photo!).

Habitat and phenology. Creeping epiphyte and lithophyte. Primary broad-leaved and coniferous, evergreen, submontane forests on limestone at elevations 1300–1500 m a.s.l. Flowers in April–May.

Distribution. N Vietnam (Hoa Binh Province), S China.

Note. The species is very close to *B. bicolor* and may be regarded as its variety.

Studied specimen. Vietnam: Hoa Binh Province, Mai Chau District, Hang Kia Municipality, near Pa Khong Village, 1300–1440 m a.s.l., 9 April 2001, *N.T. Hiep et al., HAL 783* (LE01087001 http://en.herbariumle.ru/?t=occ&id=18096).

Bulbophyllum sect. ***Desmosanthes*** (Blume) J.J. Sm., 1914, Bull. Buitenzorg 2 ser. 13: 34.

≡ *Diphyes* Blume sect. *Desmosanthes* Blume, 1825, Bijdr. 7: 313.

Lectotype (Averyanov, 1994): *Bulbophyllum crassifolioides* Aver. (≡ *Diphyes crassifolia* Blume).

Two species newly recorded for the flora of Vietnam

Bulbophyllum caudatum Lindl., 1830, Gen. Sp. Orchid. Pl.: 56; Chen *et al*., 2009, Fl. China 25: 423; Zhou *et al*., 2016, Phytotaxa 276, 1: 13; Ormerod *et al*., 2021, Pytotaxa 481, 1: 31.

Fig. 2 & 3

Described from Nepal “Hab. In Napalia, Wallich”). ***Lectotype*** (proposed here): *Dendrobium caudatum* Wallich 1983 *Bulbophyllum caudatum* Lindl. Sankoo, Napalia 1821 (K000894324 photo!), isolectotypes (K001114845 photo!, K000894448 photo!, AMES00001021 photo!, P00345422 photo!).

Description. Epiphytic herb. Rhizome creeping or pendulous, stout, ca. 1.5 mm in diameter, with roots arising below pseudobulbs or from rhizome nodes. Pseudobulbs 1-leaved, green to dark green, narrowly ovoid to narrowly ellipsoid, 1–1.7 cm long, 2.5–3 cm apart. Leaves sub-sessile, leaf blade somewhat fleshy, elliptic, 1.2–2.7 cm long, 0.5–1 cm wide, apex slightly recurved, obtuse. Inflorescence sub-umbellate raceme, with 7–9 flowers, opening simultaneously; scape slender, ca. 2.3 cm long, with 2 to 3 overlapping tubular brown sheaths at base and 1 tubular brownish sheath 5 mm long at middle; floral bracts ca. 5 mm long, 2.5 mm wide, mucronate, shorter than pedicel and ovary; pedicel and ovary ca. 4.5 mm long. Flower light yellowish to almost white, not opening widely. Median sepal ovate to narrowly ovate, ca. 5 mm long, 3 mm wide at base, acuminate; lateral sepals narrowly triangular, caudate, ca. 3–3.5 cm long, 2–2.2 mm wide. Petals oblong-elliptic, 2–2.3 mm long, 1–1.2 mm wide, blunt to obtuse. Lip obscurely 3-lobed, ca. 1.5 mm long, 0.7 mm wide, fleshy, slightly recurved at base, attached to column foot by movable white appendage, apex rounded; adaxial surface with 2 low keels fused distally near lip apex into a large, verruculose callus. Column ca. 0.5 mm long, with triangular forward directed wings, column foot ca. 0.7 mm long with up curved apex; stelidia broadly triangular,

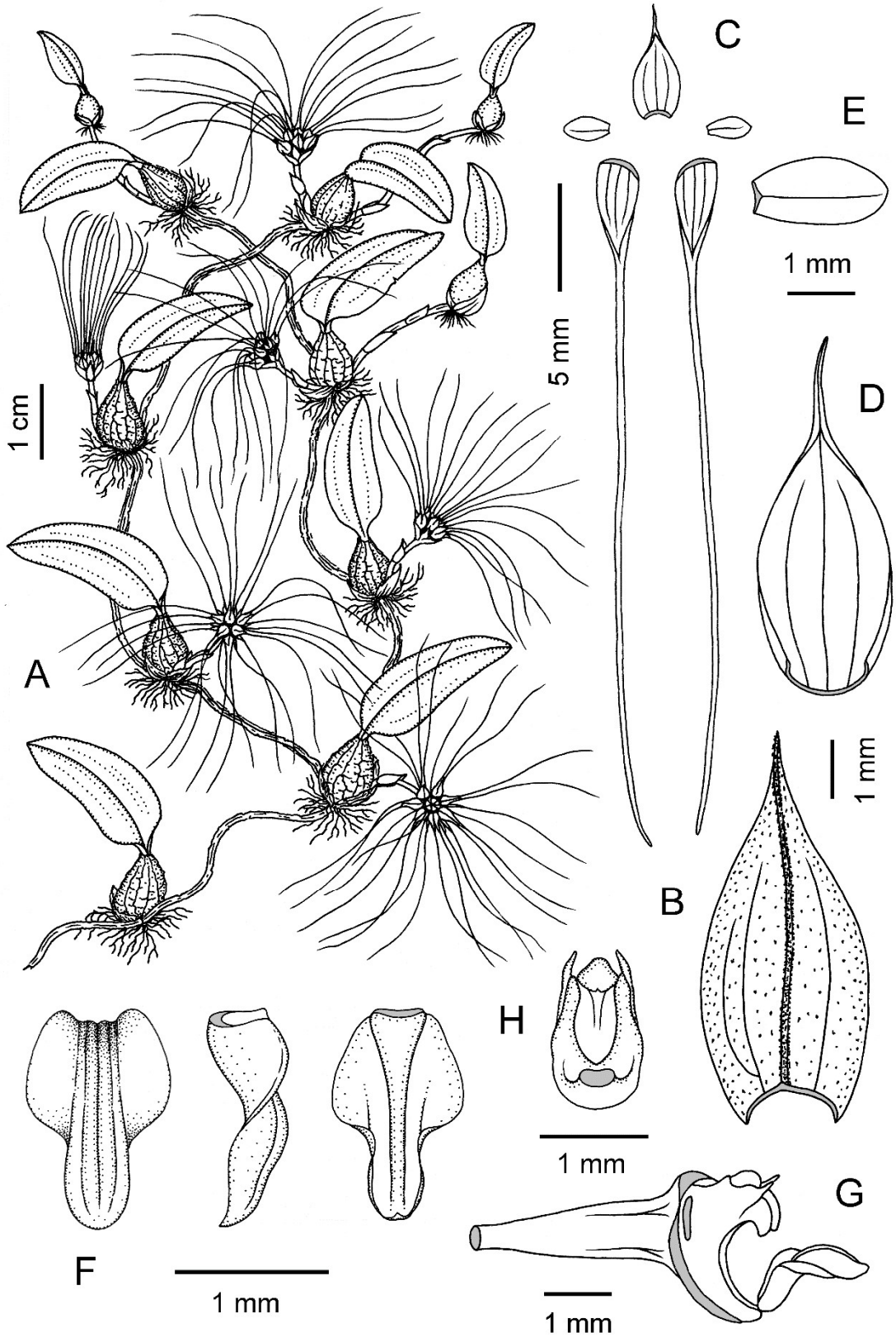


Fig. 2. ***Bulbophyllum caudatum*** Lindl. **A.** Flowering plants. **B.** Floral bract, abaxial surface. **C.** Flattened sepals and petals, adaxial surface. **D.** Median sepal, adaxial surface. **E.** Petal, abaxial surface. **F.** Lip, frontal view, side view, and view from behind. **G.** Pedicel, ovary column and lip (sepals and petals removed). **H.** Column, frontal view. All drawn from *CPC 1088a* by L. Averyanov and T. Maisak.

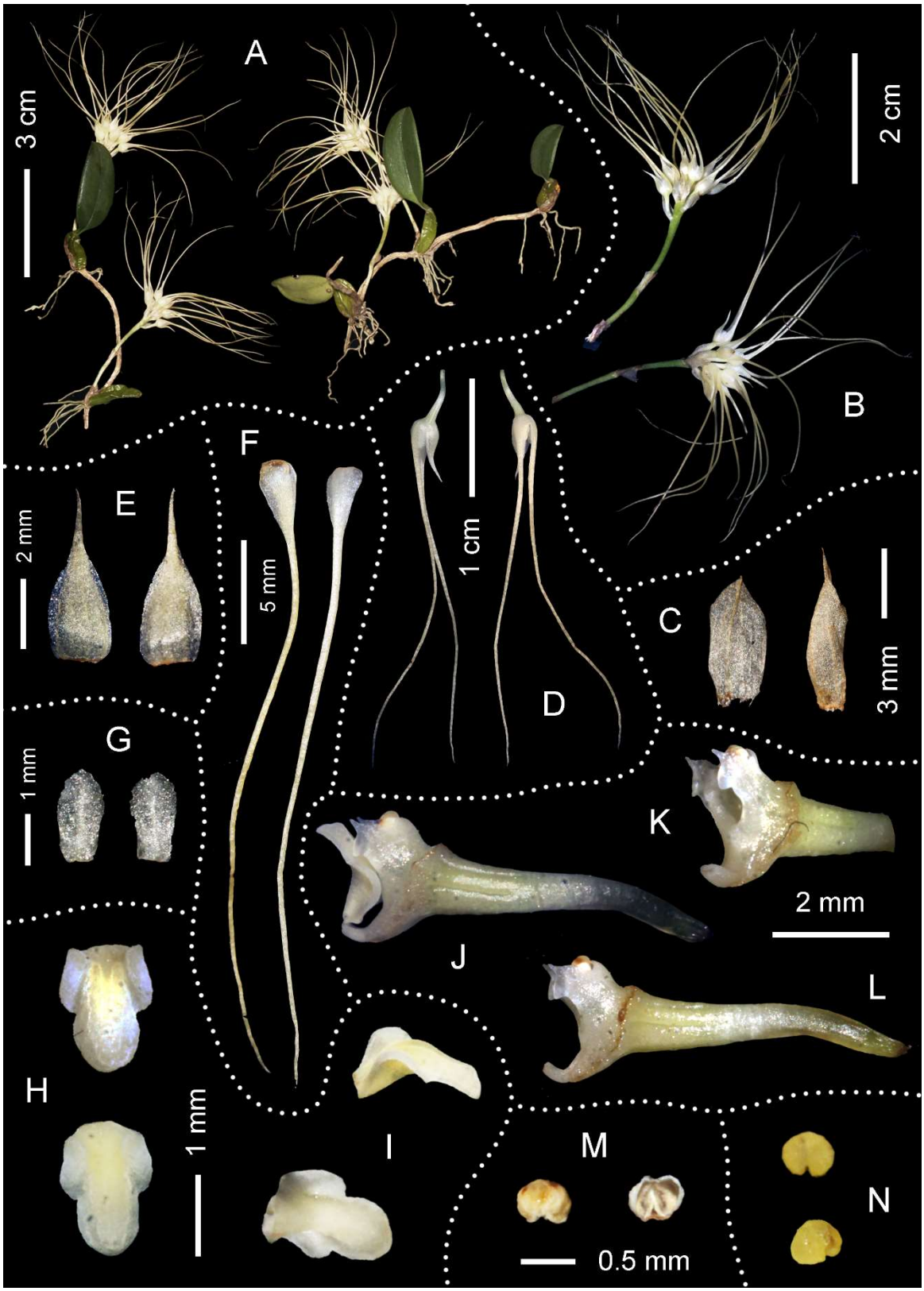


Fig. 3. ***Bulbophyllum caudatum*** Lindl. **A.** Flowering plants. **B.** Inflorescences. **C.** Floral bracts. **D.** Flowers, side views. **E.** Dorsal sepal, adaxial and abaxial sirface. **F.** Lateral sepals. **G.** Petals. **H.** Lip, view from above and from below. **I.** Lip, side and half side views. **J–L**. Pedicel, ovary, column and lip, side views. **M.** Anther cap, views from above and from below. **N.** Pollinia. All photos from *BV 626* by Truong Ba Vuong, correction and design by L. Averyanov and T. Maisak.

mucronate, ca. 0.2 mm long; stigma concave, obovate; rostellum not protruding; anther cap helmet shaped, ca. 0.6 mm tall and wide; pollinia 4. Fruits not seen.

Habitat and phenology. Creeping branch epiphyte. Primary evergreen broad-leaved forests. Flowers in May.

Distribution. N Vietnam (Dien Bien and Ha Giang provinces), NE India, Nepal, Bangladesh, Myanmar, SW China.

Notes. The species may be compared with *B. medusae* (Lindl.) Rchb.f., but differs in inflorescence bearing less than 10 flowers (vs. inflorescence usually with 40–50 flowers); lateral sepals 3.5 cm long (vs. lateral sepals up to 13 cm long), lip with rounded side lobes at base (vs. lip simple), column with prominent triangular wings (vs. column without distinct wings), and short stelidia ca. 0.2 mm long (vs. stelidia elongated, 2 mm long). The flowering habit of *B. caudatum* somewhat resembles *B. vaginatum* (Lindl.) Rchb.f. (*B*. sect. *Ephippium* (Blume) Schltr.) but can be recognized by the entire margin of median sepal and petals (vs. margin finely ciliate), lip with distinct rounded side lobes (vs. lip simple), and small mucronate stelidia ca. 0.2 mm long (vs. stelidia large, 1 mm long, with no mucro at apex). The details of *B. medusae* and *B. vaginatum* morphology reported here are based on the data provided by Vermeulen *et al.* (2015).

Species examined. Vietnam: Dien Bien Province, Muong Cha District., Mua Ngai Municipality, *Averyanov et al. CPC 1088a* (LE01055263, photo! http://en.herbariumle.ru/?t=occ&id=6948); Ha Giang Province, Quan Ba District, forest around Quyet Tien Commune, 24 May 2020, *Truong Ba Vuong, Dang Van Son, Bui Van Huong, Vang Di Thao, BV 626* (VNM00032281), *BV 1107* (VNM00032280). NE India, Sikkim, July 1895, *Pantling, R.* 50 (K000867015 photo!).

Bulbophyllum kwangtungense Schltr., 1924, Repert. Spec. Nov. Regni Veg. 19: 381.

Fig. 4

Described from SE China ("Süd-China: Lo-fau-schan, Kwangtung, 800 m alt., – *C.H. Levine no. 1521*, April 1917. *Eberdort E.D. Merrill no. 1077*, Aug. 1917"). ***Syntype:*** Loh Fau Mountain (Lofaushan) Kwangtung Province *E.D. Merrill No 10770* Aug. 1917 (AMES21665 photo!). Other authentic specimens are not located.

Description. Epiphytic herbs. Rhizome creeping or pendulous, stout, ca. 1 mm in diameter, with roots arising below pseudobulbs and from rhizome nodes. Pseudobulbs 1-leaved, green, narrowly ovoid, 0.7–1.2 cm long, 2–2.5 cm apart. Leaves sessile, leaf blade narrowly elliptic, 2.5–2.7 cm long, 0.8–1 cm wide, apex slightly retuse. Inflorescence sub-umbellate, with 2–4 flowers, opening simultaneously; scape slender, 3.8–4.2 cm long, with 3–4 overlapping tubular sheaths at base, and 4 tubular sheaths 3–5 mm long above; floral bract 2–3.5 mm long, acute, shorter than pedicel and ovary; pedicel and ovary ca. 6.5 mm long. Flowers uniformly white, widely opening. Sepals narrowly triangular, acuminate to caudate; median sepal ca. 9 mm long, 1.5 mm wide at base; lateral sepals 10–10.5 mm long, 2–2.2 mm wide, longer that median sepal. Petals lanceolate, falcate, acuminate, 4.5–5 mm long, 1–1.2 mm wide. Lip simple, ca. 5 mm long, 2 mm wide, obtuse, slightly recurved, attached to the column foot by movable white appendage; adaxial surface with 3 low keels fused together forming callus near lip apex, margins of callus finely denticulate. Column ca. 1.5 mm long; column foot ca. 0.6 mm long, downward directed with slightly upcurved apex; stelidia erect, triangular, acute, ca. 0.3 mm long; stigma concave almost circular; rostellum not protruding; anther cap helmet shaped, yellowish, ca. 0.5 mm long with short broadly triangular beak; pollinia 4. Fruits not seen.

Habitat and phenology. Creeping branch epiphyte. Primary evergreen broad-leaved forests. Flowers in December.

Distribution. N Vietnam (Ha Giang Province), S China.

Note. The species looks similar to *B. laxiflorum* but can be distinguished by smaller habit, shorter inflorescence 3.8–4.2 cm long with 2–4 flowers (vs. inflorescence 4.5–12 cm long, with up to 24 flowers), lip with 3 keels fused distally into 1 large callus (vs. lip with 2 low indistinct keels, not fused distally), stelidia straight, triangular (vs. stelidia subulate). The details of *B. laxiflorum* morphology reported here are based on the data provided by Seidenfaden (1979) and Vermeulen *et al.* (2015).

Species examined. China: Su-tchuen oriental, Tchen Keou Tin district, 1200 m, 3 August 1897, *Farges P.G., 1407* (P00348078 photo!, P00348079 photo!); Yunnan. Rochers de Pa-cul-gai, 10 August 1921, *E.E. Maire 750* (P00348077 photo!); Sha Lo Shan, Lo-Lo-ha Village, Sin-fung District, 26 June 1938, *Taam Y.W., 964* (WU 062898 photo!). Vietnam: Ha Giang Province, Quan Ba District, forest around Quyet Tien Commune, 27 December 2020, *Truong Ba Vuong, Bui Van Huong, Vang Di Thao, BV 956*, (VNM0002430), *BV 1106* (VNM00032279), (LE01090066 http://en.herbariumle.ru/?t=occ&id=75853).

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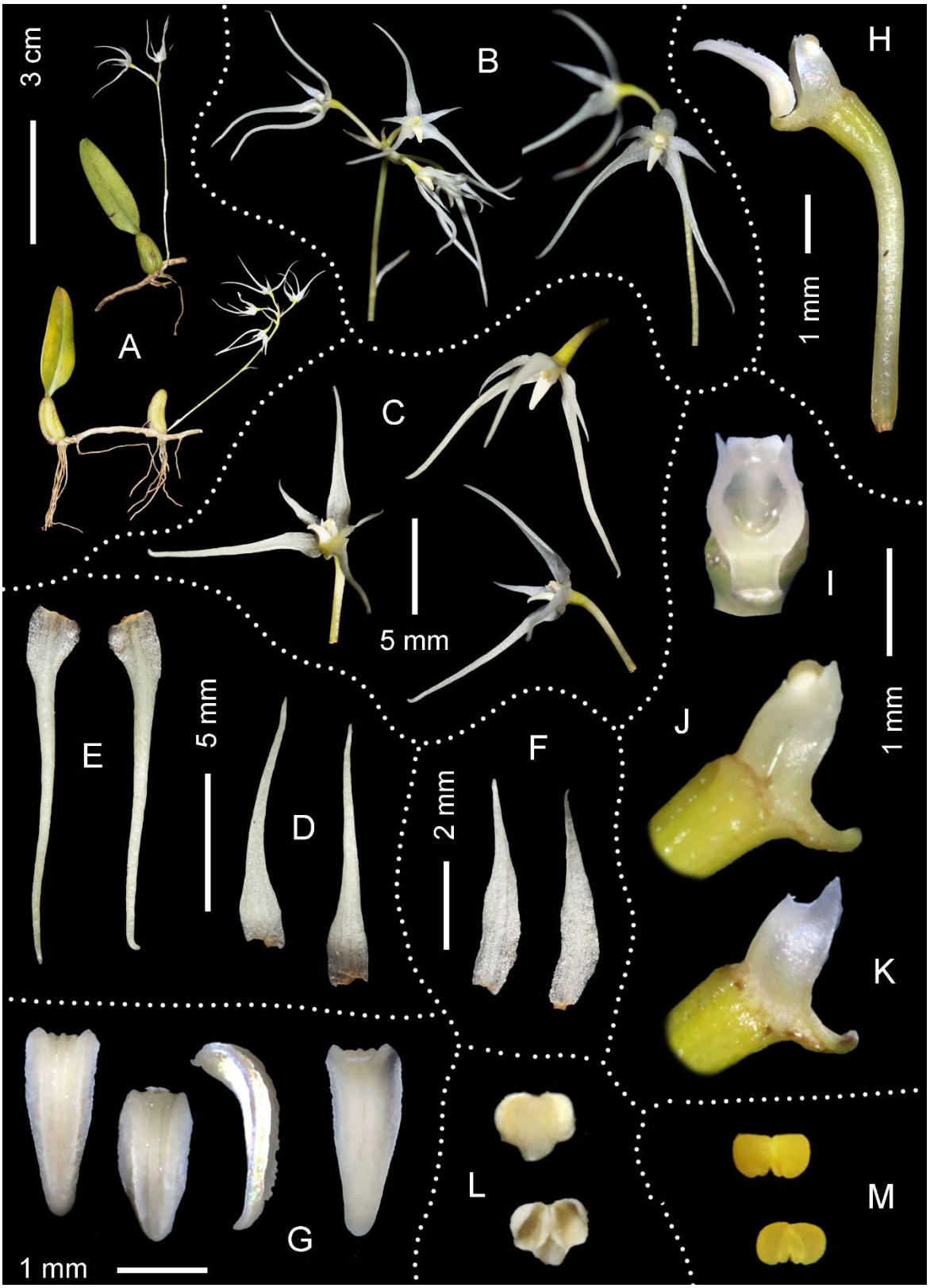


Fig. 4. ***Bulbophyllum kwangtungense*** Schltr. **A.** Flowering plants. **B.** Inflorescences. **C.** Flowers, view from different sides. **D.** Dorsal sepal, adaxial and abaxial surface. **E.** Lateral sepals. **F.** Petals. **G.** Lip, view from different sides. **H.** Pedicel, ovary, column, and lip, side view. **I–K**. Column, frontal and side views. **L.** Anther cap, view from above and from below. **M.** Pollinia. All photos from *BV 956* by Truong Ba Vuong, correction and design by L. Averyanov and T. Maisak.

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