

## ***Bulbophyllum* sect. *Hirtula* (Orchidaceae): A New Species and a New Record for Peninsular Malaysia**

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### **Abstract**

*Bulbophyllum setuliferum*, sp. nov. (sect. *Hirtula*) from Peninsular Malaysia is described. *Bulbophyllum atratum* J.J. Smith, of the same section, until now known only from Sumatra, is a new record for Peninsular Malaysia.

### **Introduction**

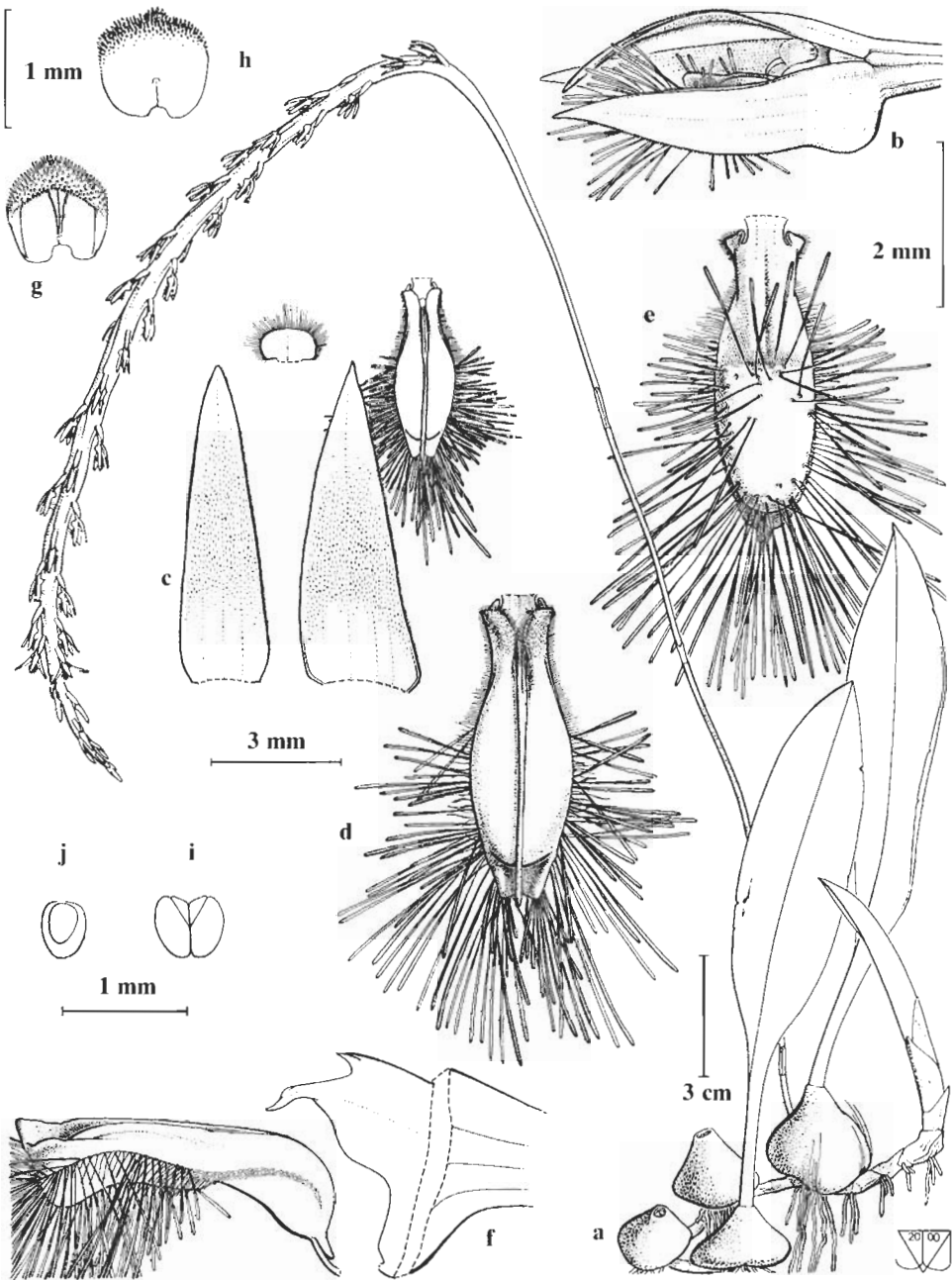
In spite of all the attention that, for so long, has been focused on the orchid flora of Peninsular Malaysia, the area continues to yield surprises. The two species mentioned in this paper may not be the most conspicuous of Malaysian orchids, but both occur in areas that have been frequently visited by orchid specialists for about a century now. Where they are found, they are not even particularly rare, and it is difficult to understand why they are not already represented in the existing collections.

Material cited with the abbreviation 'SBG-O' originates from the 'Singapore Botanic Gardens Orchid Collection'. This is a number series introduced for the administration of the collection of living orchids in the Gardens.

***Bulbophyllum setuliferum* J.J. Verm. & L.G. Saw, sp. nov. — Fig. 1.**

*Bulbophyllum setuliferum* J.J. Verm. & L.G. Saw, a *Bulbophylloaithorhachide* J.J. Verm. labello adaxialiter glabro, labello secus marginem pilis distaliter parum incrassatis differt. — TYPUS: Malaysia, Pahang, Cameron Highlands, near Tanah Rata, SBG-O 490 (SING, holo.; KEP, iso.; KLU, iso.).

*Rhizome* creeping, 2.5—5 mm diam. *Pseudobulbs* 1-leafed, depressed conical, 1.4—3.2 cm apart, 1.4—2.5 by 1.3—2.8 cm, not laterally flattened. *Petiole* 3—5 cm. *Leaf blade* elliptic to ovate, 10—15 by 2—3.2 cm, index (length/width) 3.7—6, acute to slightly acuminate. *Inflorescence* 33—44 cm, 22—68-flowered. *Peduncle* approx. patent, c. 22 cm; bracts 5, the longest 6.5—9 mm, acute to shortly acuminate. *Rhachis* nodding, swollen and spindle-shaped, sometimes slightly flattened, with slight depressions below the flowers, 11—32 cm by 4—6 mm, surface glabrous. *Floral bracts* triangular, 4—6.6 mm long, acute. *Flowers* spirally arranged, in a lax raceme, one or a few open at a given time, not much opening. *Pedicel and ovary* c. 3.5 mm long. *Median sepal* little recurved, flat, triangular, 6—7.5 by 1.8—2 mm, index 3—3.8, acute, margins very finely ciliate; base rather broadly attached; rather thin; surface adaxially finely hirsute, abaxially glabrous. *Lateral sepals* free, recurved, hardly falcate, somewhat oblique, triangular, 6.2—8 by 2.1—2.5 mm, index 2.8—3.3, upper margin glabrous, otherwise as the median sepal. *Petals* not recurved, not falcate, reniform, 0.7—0.8 by 1—1.3 mm, index 0.6—0.7, rounded, margins long ciliate; base narrowly attached; rather thin; surface glabrous. *Lip* curved in the basal half, general outline approx. elliptic, 3.5—4 by c. 1.2 mm, index 2.9—3.3 (not spread out), tip truncate, margins slightly erose, with long, slightly club-shaped hairs increasing in length and thickness towards the tip of the lip; thick; adaxially concave near the base and close to the tip, slightly convex in between, with a thin median slit at about 1/4—1/3 of its length, with a very distinct high and narrow median ridge starting at about the same point and overtopping the tip of the lip as a high crest, adaxial surface somewhat hirsute near the base but otherwise glabrous; abaxially with a retuse ridge near the base and a distinctly swollen top part, surface with some slightly club-shaped hairs half-way and near the margins in the swollen part, otherwise glabrous; auricles present at the base of the lip, near the ligament, semi-elliptic, obtuse. *Column* from ovary to the tip of the steldia 1.9—2.1 mm. *Steldia* distinct, falcate, 0.5—1 mm, acute, with a deltoid, rounded wing along the lower margin, at its base; stigma not protruding at its base, semi-elliptic; column foot slightly swollen. *Anther* abaxially with a weak, rounded, long-papillose ridge near its top, frontal part not protruding, not concave, front margin rounded, long papillose. *Pollinia* 4, obovoid, the outer flattened on one side, the inner more than half as long as the outer, distinctly flattened on both sides. *Stipes* absent. *Colours*: inflorescence and sepals pale green, suffused with dull greyish purple, the sepals also with purplish veins; petals with a purple margin; lip with a purple margin, some spotting on both surfaces, and with purple hairs; column yellowish green, foot and wings below steldia marked with purple.



**Figure 1.** *Bulbophyllum setuliferum* J.J. Verm. & L.G. Saw.

a. Habit; b. Flower; c. Flower analysis, from left to right: median sepal, petal, lateral sepal, lip; d. Lip, adaxial side; e. Lip, abaxial side; f. Column and lip, lateral view; g. Anther, adaxial side; h. Anther, abaxial side; i. Pollinia, single pair; j. Pollinia, single pair. a. from *SBG-O 490* (living plant); b.—j. from *SBG-O 625* (spirit sample).

*Distribution and habitat:* Peninsular Malaysia. Montane forest, on tree trunks in deep shade; also growing in moss at the foot of a tree, at 1600—1800 m altitude. Flowering in March, April; in cultivation observed in June, September and October.

*Notes:* Most similar to *Bulbophyllum aithorhachis* J.J. Verm., from Borneo, it differs in having a much more slender rhachis (9—12 mm diam. in *B. aithorhachis*; 4—6 mm diam. in *B. setuliferum*), narrower sepals (the index [length/width] of the median is 2.2 and 3—3.8 respectively) and in the distribution and shape of the hairs on the lip. In *B. aithorhachis* the adaxial side is distinctly hirsute towards the tip, whereas in *B. setuliferum* it is glabrous except for a finely hirsute patch near the base. Besides, the hairs along the lip margin are slightly club-shaped in *B. setuliferum*, but not so in *B. aithorhachis*.

The name refers to the small fringe of stiff hairs along the lip margins.

*Other material seen:* PAHANG. Cameron Highlands: near Tanah Rata, SBG-O 499 (SING); near Robinson Falls, SBG-O 625 (SING). TERENGGANU. Jengai F.R., FRI 44299 (KEP).

### ***Bulbophyllum atratum* J.J. Sm.**

*Bulbophyllum atratum* J.J. Sm., in Bull. Jard. Bot. Buitenzorg, s. 2, 25 (1917) 73; Bull. Jard. Bot. Buitenzorg suppl. 2, Livr. 3—4 (1930) t. 94, fig. 4. — TYPUS: Indonesia, Sumatra, Bengkulen, Bt. Barisan, *Hort. Bog.* 862 (BO, not seen).

*Distribution and habitat:* Sumatra, Peninsular Malaysia. Habitat unknown, found in Sumatra at about 1000 m altitude. Flowering observed in March (cultivated plant).

*Notes:* Characterised by its 30—50 cm long, pendulous inflorescence with a 15 cm long, somewhat thickened rhachis. The top 2—3 cm of the rhachis is without flowers. The flowers are incurved on a patent pedicel. The rhachis and the flowers are very dark purple.

*Material seen:* Peninsular Malaysia, northern part, perhaps southern Thailand, SBG-O 87 (SING). PAHANG. Genting Highlands, C.K. Chang (*Kuala Lumpur*) cult. (SING).