

Fig. 1. *Bulbophyllum fonsflorum* J.J. Vermeulen. a. Habit; b. flower analysis, from left to right median sepal, petal, lateral sepal, lip; c. lip adaxially; d. lip abaxially; e. column and lip, lateral view; f. anther abaxially; g. anther abaxially; h. pollinia, a pair; i. pollinium, single (a Reeve 1019; b-i Reeve 598).

NEW SPECIES OF BULBOPHYLLUM SECTION MACROURIS
(ORCHIDACEAE) FROM NEW GUINEA

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SUMMARY

Three new orchid species of *Bulbophyllum* Thou. sect. *Macrouris* Schltr are described: *B. fonsflorum*, *B. myon*, and *B. scopia*. All three originate from Papua New Guinea.

While revising the section *Macrouris* Schltr of the genus *Bulbophyllum* the following species were found to be new:

***Bulbophyllum fonsflorum* J.J. Vermeulen, spec. nov. – Fig. 1.**

Bulbophyllum fonsflorum J.J. Vermeulen ab omnibus speciebus sect. *Macrouri* in sepalis 5,5–12 cm longis differt. — T y p u s: *Reeve 598* (holo L, iso K).

Rhizome creeping, 1.8–2.5 mm diam.; all rhizome scales longer than the internodes. *Roots* in tufts below each pseudobulb. *Pseudobulbs* ovoid, 1–2 cm apart, 0.6–1.5 × 0.4–0.8 cm, not flattened. *Petiole* 25–40 mm. *Leaf blade* elliptic to obovate, 5.2–11 × 1.4–2.3 cm, index 3.5–6, tip acute to acuminate. *Inflorescence* 27–34 cm, 11–28-flowered. *Peduncle* 16–17 cm; bracts 4–5, the longest 7–9 mm. *Rhachis* pendulous, 10–17 cm. *Floral bracts* ovate, 4–6 mm, tip acute to acuminate. *Pedicel* and *ovary* 9–20 mm, with the node c. 3 mm from the floral bract. *Flowers* many open at a time, moderately opening. *Median sepal* ovate, 55–70 × 5–5.5 mm, index 11–14, tip caudate; rather thin; glabrous. *Lateral sepals* free, oblique, 70–120 × 4 mm, index 17–30, otherwise as the median sepal. *Petals* oblique, 5.5–7 × 2.8–3.2 mm, index 2–2.2, tip subacute; otherwise as the median sepal. *Lip* curved, general outline ovate, 5–6 × 2–2.5 mm, index c. 2.5 (not spread), tip rounded; rather thick; glabrous; adaxially concave near the base, with 2 parallel ridges close to the midvein approx. halfway, abaxially with an retuse median ridge. *Column* from ovary to the tip of the steldia 1.2–1.3 mm; stigma protruding at its base, triangular, column foot without accessories. *Steldia* inconspicuous, tip rounded. *Anther* abaxially with a very distinct ridge towards its tip; front margin not protruding. *Pollinia* 2. *Stipes* absent.

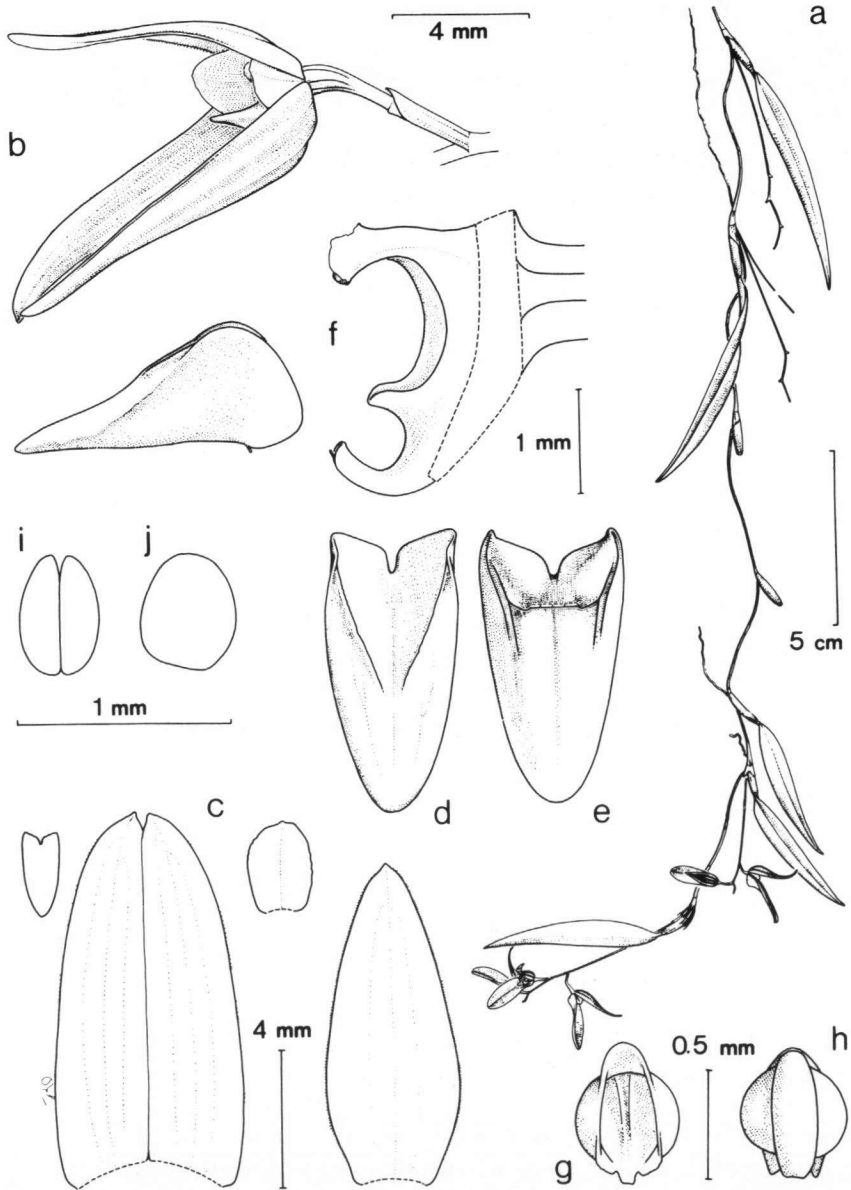


Fig. 2. *Bulbophyllum myon* J.J. Vermeulen. a. Habit; b. flower; c. flower analysis, from left to right median sepal, petal, lateral sepal, lip; d. lip adaxially; e. lip abaxially; f. column and lip, lateral view; g. anther adaxially; h. anther abaxially; i. pollinia, a pair; j. pollinium, single (a Jongejan 804; b-j Jongejan 1388).

Colours. Pseudobulbs brownish. Leaves green, often suffused with purple. Peduncle and rhachis purple. Sepals and petals white, with purple veins. Lip creamy yellow, suffused with pinkish purple in the centre.

Ecology. Epiphyte in primary forest. Altitude 1800–2000 m. Flowering 1, 12.

Distribution. Papua New Guinea: Chimbu Prov. (Reeve 598); Western Highlands Prov. (Reeve 1019).

Notes. 1. Well characterized among other species of sect. *Macrouris* by its very long sepals, by the position of the keels on the adaxial side of the lip, as well as by the very conspicuous ridge on the anther cap.

2. The name '*fonsflorum*' is self-explanatory in this beautiful species.

***Bulbophyllum myon* J.J. Vermeulen, *spec. nov.* – Fig. 2.**

Bulbophyllum myon J.J. Vermeulen ab omnibus speciebus sect. *Macrouri* in rhizoma pendula et sepalis lateralibus connatis differt. — **T y p u s:** *Jongejan 1388* (holo L, iso K).

Rhizome perpendicularly hanging down, up to 80 cm long, somewhat flattened and winged, largest diam. 0.6–1.2 mm; rhizome scales of the longest internodes distinctly shorter than those internodes, leaving bare large portions of the rhizome. **Roots** mostly close to the base of the rhizome. **Pseudobulbs** ovoid to approx. cylindrical, 1.8–6.5 cm apart, 0.8–2 × 0.2–0.3 cm, not flattened. **Petiole** 1–3 mm. **Leaf blade** ovate, 2.5–8.5 × 0.3–0.9 cm, index 6–16, tip acute-acuminate. **Inflor-escence** 4.5–10 cm, 2–8-flowered. **Peduncle** 3.5–5 cm; bracts c. 3, the longest 4–5 mm. **Rhachis** pendulous, 1–5 cm. **Floral bracts** ovate, 1.2–2 mm, acute. **Pedicel** and **ovary** 4–6 mm, with the node 1–2 mm from the floral bract. **Flowers** open at the time, moderately opening. **Median sepal** ovate, 7.5–12 × 3.8–4.5 mm, index 1.9–3.2, tip (sub)acute; margins finely papillose-ciliolate; thin; surface glabrous. **Lateral sepals** connate, 9–14 × 2.8–3.5 mm, index 2.8–5, margins glabrous or slightly papillose; otherwise as the median sepal. **Petals** ovate to elliptic, 2.6–4 × 1.8–2.2 mm, index 1.5–2, tip rounded to obtuse; margins glabrous to somewhat erose; thin; surface glabrous. **Lip** approx. straight, general outline ovate, 2.6–3 × 1.2–1.3 mm, index 2–2.3 (not spread), tip rounded; thick; glabrous; adaxially concave near the base, with 2 ridges converging in front approx. halfway; abaxially with an inconspicuous, retuse median ridge. **Column** from ovary to the tip of the steldia 1.2–1.8 mm; stigma protruding at its base, elliptic, column foot without accessories. **Steldia** inconspicuous, deltoid, tip obtuse to acute; often with an erose upper margin. **Anther** abaxially with a ridge, front margin protruding. **Pollinia** 2. **Stipes** absent.

Colours. Sepals (creamy) yellow, often with purple veins and the tip entirely purple. Petals cream coloured, often with a purple vein. Lip yellowish, often suffused with purple.

Ecology. Epiphyte in primary forest. Altitude 1800–3000 m. Flowering observed in 1, 3, 11.

Distribution. Papua New Guinea: Eastern Highlands Prov. (*Argent 1363*; *Jongejan 1346, 1388*); Enga Prov. (*Jongejan 804*; *Reeve 993, 1115*).

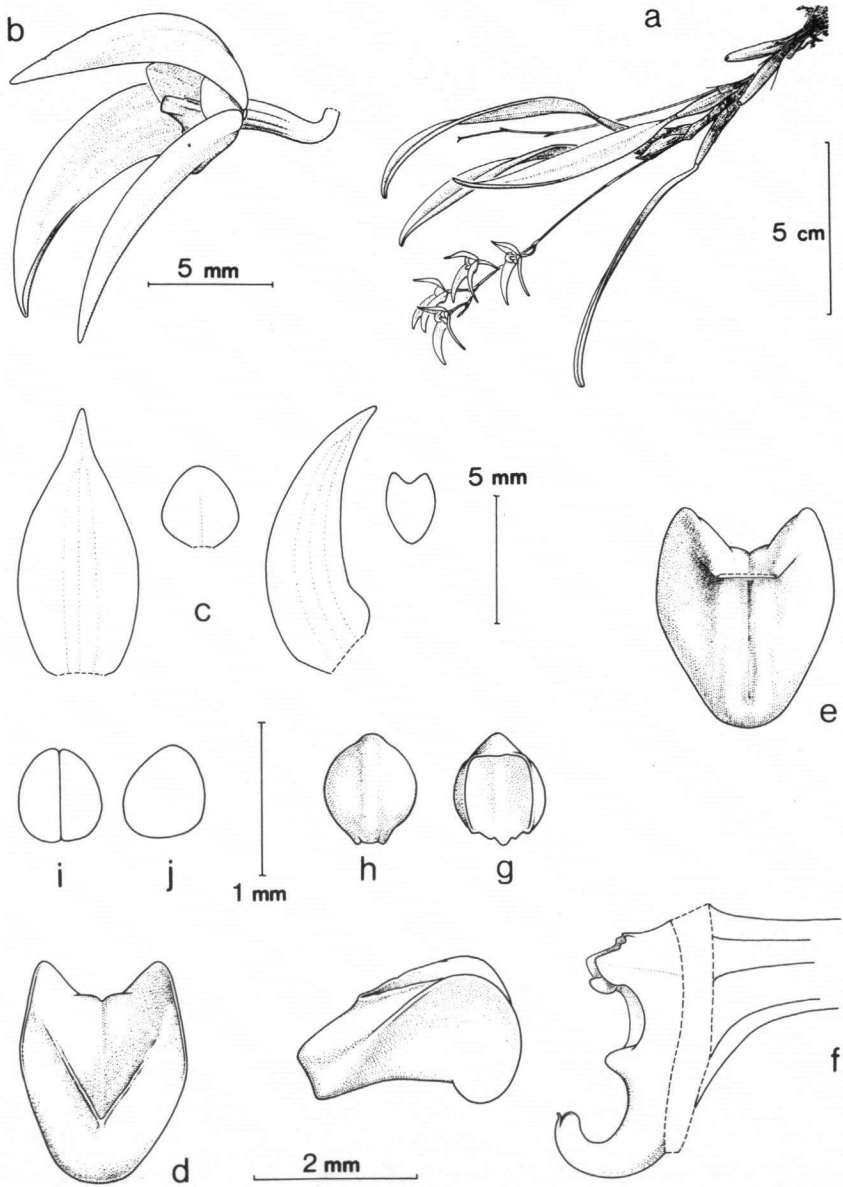


Fig. 3. *Bulbophyllum scopae* J.J. Vermeulen. a. Habit; b. flower; c. flower analysis, from left to right median sepal, petal, lateral sepal, lip; d. lip adaxially; e. lip abaxially; f. column and lip, lateral view; g. anther adaxially; h. anther abaxially; i. pollinia, a pair; j. pollinium, single (Jongejan 1670).

Notes. 1. Among the species of sect. *Macrouris* with connate lateral sepals this species is at once recognizable by its thin, pendulous rhizomes.

2. The name has been derived from the Greek 'muein', to gape, referring to the flowers which mainly consist of spreading valves.

***Bulbophyllum scopa* J.J. Vermeulen, spec. nov. – Fig. 3.**

Bulbophyllum scopa J.J. Vermeulen, *B. macgregorii* similis, in rhizoma patente differt. –
T y p u s: Jongejan 1670 (L).

Rhizome patent, up to 12 cm long, 1.5–2.5 mm diam.; all rhizome scales longer than the internodes. *Roots* mostly close to the base of the rhizome. *Pseudobulbs* ovoid, 0.3–1.5 cm apart, 1.3–2.8 × 0.3–0.5 cm, moderately flattened. *Petiole* 2–15 mm. *Leaf blade* elliptic, 3.5–9 × 0.4–1.2 cm, index 5.5–14, tip acute. *Inflorescence* 4.5–17 cm, 2–12-flowered. *Peduncle* 2.5–9 cm; bracts 3–4, the longest 6–9 mm. *Rhachis* erect or arching, 2–8 cm. *Floral bracts* ovate to elliptic, 2.5–4 mm, tip acute. *Pedicel* and *ovary* 5–10 mm, with the node 1–2 mm from the floral bract. *Flowers* many open at the time, moderately opening. *Median sepal* ovate to elliptic, 9–16 × 3.5–5.5 mm, index 2.2–3.5, tip acute to shortly acuminate; thin; glabrous. *Lateral sepals* free, oblique, ovate to triangular, 9–16 × 3–4 mm, index 2.3–4.2, otherwise as the median sepal. *Petals* ovate to approx. orbicular, 3–4.5 × 2.2–3.5 mm, index 1–1.4, tip obtuse to acute; otherwise as the median sepal. *Lip* slightly curved, general outline ovate, 2.2–3 × 1.8–2 mm, index 1.2–1.7 (not spread), tip rounded; thick; glabrous; adaxially concave near the base, with 2 distinct, narrow ridges converging and touching in front; abaxially with a retuse median ridge. *Column* from ovary to the tip of the stelidia 1–1.5 mm; stigma protruding at its base, approx. orbicular; column foot without accessories. *Stelidia* inconspicuous, tip obtuse to acute. *Anther* abaxially with a ridge; front margin not protruding. *Pollinia* 2. *Stipes* absent.

Colour s. Sepals and petals yellow or yellowish green, with or without purple veins. Lip yellow, greenish or suffused with purple towards the tip.

Ecology. Epiphyte in primary forest. Altitude 1400–2000 m. Flowering 3, 4, 6, 9.

Distribution. Indonesia: Irian Jaya, Central Mts, Swart Valley (*Bergman 164, 187, 189, 278, 427, 428, 667, 685*). Papua New Guinea: Enga Prov. (*Reeve 1106*); Eastern Highlands Prov. (*Jongejan 1312, 1396*); Southern Highlands Prov. (*Reeve 1096*).

Notes. 1. In general aspect this species is rather similar to *Bulbophyllum macgregorii*. It is recognizable by its patent not creeping rhizome, and wider sepals.

2. The name has been derived from the Latin '*scopa*', a broom, referring to the general appearance of the plant.