

A NEW RECORD AND SPECIES OF *DENDROBIUM* SECTION *GRASTIDIUM* (ORCHIDACEAE) FROM THE SOLOMON ISLANDS

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Abstract. Two additions are proposed for the Solomon Islands orchid flora. *Dendrobium biflorum* is a new record, while *D. stella-portus* is proposed as a new species.

Keywords: *Dendrobium*, *Grastidium*, Solomon Islands, new record, new species

The orchid flora of the Solomon Islands and Bougainville was treated by Lewis and Cribb (1991), wherein they recorded eight native species of *Dendrobium* Swartz section *Grastidium* Blume. This section is the largest in the genus, with about 225 species, 158 of which are found in nearby New Guinea. The group is characterized by elongate, leafy stems; short, biflorous inflorescences subtended by two pairs of sheaths; and ephemeral flowers. Recent research (Ormerod, in prep.) has resulted in the discovery of two new endemic section *Grastidium* species from Bougainville, Papua New Guinea. Thus the Solomon Archipelago now has 13 species of the group, including *D. isabelense* Ormerod (Ormerod, 2010) from Santa Isabel, the new entities from Bougainville, and the two taxa dealt with here.

Dendrobium biflorum (Forst.f.) Swartz, Nova Acta Regiae Soc. Sci. Upsal. ser. 2, 6: 84. 1799.

Basionym: *Epidendrum biflorum* Forst.f., Fl. Ins. Austral. Prodr.: 60. 1786. TYPE: SOCIETY ISLANDS. Tahiti, 1774, *J. R. & G. Forster s.n.* (Lectotype [proposed by Kores, 1989: 96]; BM, not found; Isolectotypes: G [not seen]; K [image seen]). Fig. 1.

Homotypic synonym: *Grastidium biflorum* (Forst.f.) M.A. Clem. & D.L. Jones, Lasianthera 1, 2: 64. 1997.

Distribution: Society Islands; Samoa; Fiji; Vanuatu; Solomon Islands.

Additional specimens examined: SOCIETY ISLANDS. Tahiti, 23 June 1922, *W. A. Setchell & H. E. Parks 456* (GH). NIUE. Without locality, 1775, *Capt. J. Cook s.n.* (BM, image seen). SAMOA. Tau Island, 1.6–3.2 km S of Siufuga Village, 150 m, 27 September 1939, *H. G. Yuncker 9067* (AMES). FIJI. Viti Levu, near Nandarivatu, valley of the Sigatoka River, 900 m, 17 November 1927, *J. W. Gillespie 3862* (AMES). VANUATU. Erromanga Island, near the Nouankao Camp, 150 m, 8 August 1971, *P. S. Green RSNH 1310* (A). SOLOMON ISLANDS. Vanikoro Island, Senimi, 50 m, 25 November 1928, *S. F. Kajewski 657* (AMES 38010, 37192, BRI). San Cristobal (= Makira), Star Harbour, 0 m, 18 October 1932, *L. J. Brass 3067* (AMES, BRI).

Dendrobium biflorum is a widespread and commonly collected species in the Pacific Islands. It has not been unambiguously recorded from the Solomon Islands, though

Lewis and Cribb (1989) report it. They later (Lewis and Cribb, 1991) referred those reports to *D. vanikorensis* Ames. Examination of material from the Santa Cruz Islands and Makira in the Solomon Islands confirms the presence of *D. biflorum* there.

Though Lewis and Cribb (1989) united *Dendrobium vanikorensis* with *D. biflorum*, they later (Lewis and Cribb 1991) reinstated and illustrated the former. Externally the two species are quite similar, with slender stems, narrow leaves, and spidery, white flowers. However, *D. vanikorensis* differs in having smaller (sepals 8–13 vs. 19–26 mm long) flowers, and an entire to weakly trilobed lip with an ovate-elliptic midlobe (vs. strongly trilobed lip, with a basally ovate, apically caudate midlobe).

Typification of *Dendrobium biflorum* is problematic because the lectotype (*J. R. & G. Forster s.n.*) chosen by Kores (1989) cannot be found in BM (Margonska and Szlachetko, 2010; N. Holstein, pers. comm.). There is one collection in BM ascribed to Captain James Cook, on whose ship the Forsters travelled during the former's second circumnavigation of the world. However, this specimen was collected on Savage Island (now Niue), and if the provenance is correct it shows that *D. biflorum* occurs on Niue alongside the recently described *D. niueense* (Ormerod, 2020).

Dendrobium stella-portus Ormerod, *sp. nov.*

TYPE: SOLOMON ISLANDS. San Cristobal (= Makira), Star Harbour, 0 m, 18 October 1932, *L. J. Brass 3066* (Holotype: AMES 50442; Isotypes: BRI, GH). Fig. 2.

Related to *D. campbellii* Cribb & B.A. Lewis but the flowers with subacute, concave (vs. obtuse, cucullate) dorsal sepal and petals, the labellum with truncate, acute-cornered (vs. obtuse) sidelobes, and shorter, acanthoid (vs. longer, hairlike) processes on the disc.

Epiphytic herb. Roots and rhizome not seen. Stems slender, elongate, subterete, laxly leafy, pendent, 100–200 cm long, 0.6 cm wide across leaf sheaths; internodes to 3.5 cm long. Leaves oblong-lanceolate, apex unequally obtusely bilobed, rigidly coriaceous, 11.30–12.00 × 1.90–2.65 cm; leaf sheaths tubular, striate, 1.8–2.6 cm long. Inflorescence biflorous, very short; inner peduncular sheaths transversely elliptic, to 5 × 6–7 mm. Flowers pure white. Pedicel

I wish to thank herbarium and library staff at BRI and the Harvard University Herbaria (A, AMES, GH) for their help and hospitality during my visits. Andrew Franks (Collections Manager, BRI) kindly imaged the BRI isotype of *Dendrobium stella-portus*. Norbert Holstein (BM) graciously searched collections at BM for the type material of *Epidendrum biflorum*.

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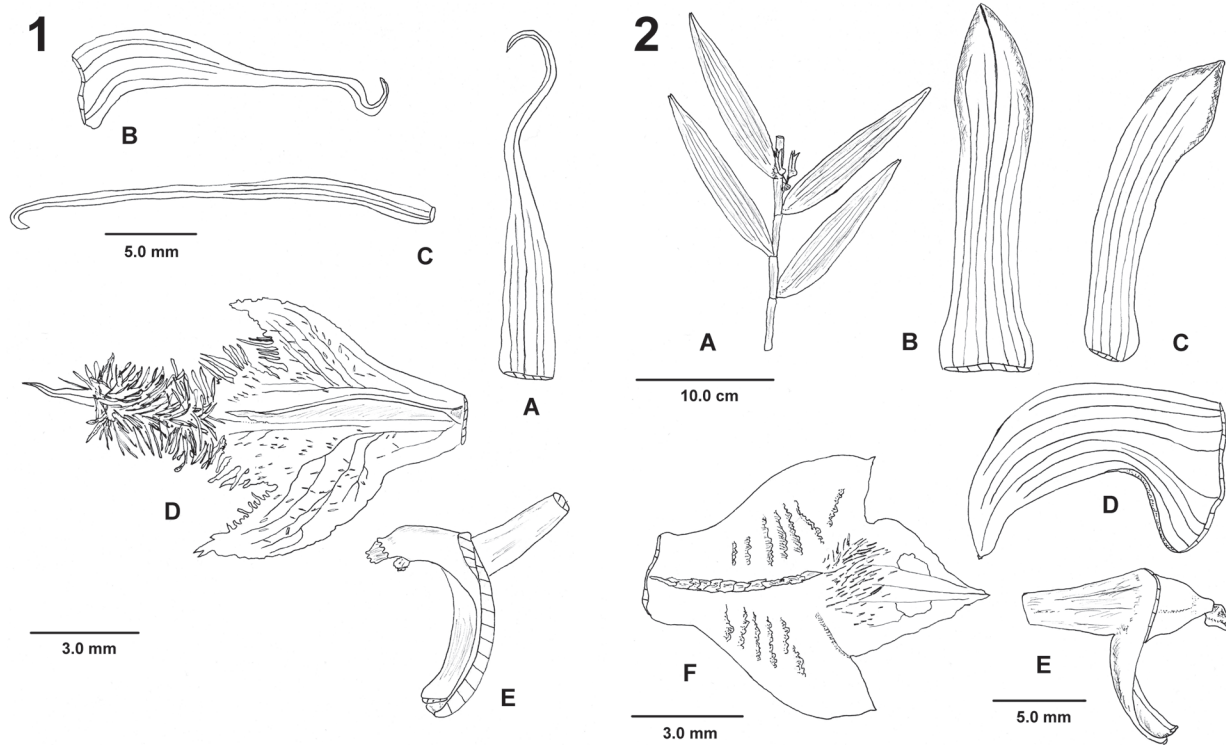


FIGURE 1. *Dendrobium biflorum* (Forst.f.) Swartz. **A**, dorsal sepal; **B**, lateral sepal; **C**, petal; **D**, labellum; **E**, column (minus anther cap). Drawn from *S. F. Kajewski 657* (AMES 38010).

FIGURE 2. *Dendrobium stella-portus* Ormerod. **A**, stem fragment; **B**, dorsal sepal; **C**, petal; **D**, lateral sepal; **E**, column; **F**, labellum. **A** drawn from isotype (BRI), rest from holotype.

with ovary clavate, 5.9 mm long. *Dorsal sepal* ligulate-subpandurate, subacute, apical third concave, 7-veined, 13.0×4.5 mm. *Lateral sepals* obliquely elliptic from a dilated base, subacute, 8-veined, $13.5\text{--}15.0 \times 8.0$ mm, middle 4.8 mm wide, forming with the column foot an obtuse, 6-mm-long mentum. *Petals* ligulate-oblongate, subacute, apical third concave, 7-veined, 16.0×3.8 mm. *Labellum* trilobed, $9.5 \times 5.9\text{--}6.0$ mm; hypochile flabellate, $6.0 \times 5.9\text{--}6.0$ mm, sidelobes truncate with acute corners, each side inside with transverse rows of irregular thickenings; epichile ovate-triangular, acute, 3.5×3.9 mm; medial keel relatively narrow, upper surface broken and jagged, apex forward pointing, triangular, acute, free, in front of which at the apex of the hypochile and base of the epichile an acanthoid patch of processes. *Column* short, stout, 3.2 mm long (minus anther cap); column foot 5.7 mm long.

Distribution: Solomon Islands (Makira).

Habitat: on trees fringing the beach, of common occurrence all along the coast.

Etymology: from the Latin *stella*, star, and *portus*, harbour, in reference to the type locality, Star Harbour.

Dendrobium stella-portus is related to *D. campbellii* Cribb & B.A. Lewis (from Rendova, Solomon Islands), sharing with it a similar external appearance, and flowers in which the lip has a narrow, broken median keel with a free apex that is terminated by a patch of subulate processes spread over the apex of the hypochile and base of the epichile. However, *D. stella-portus* differs in having subacute sepals and petals, truncate sidelobes with acute corners, and shorter prickle-like processes in front of the keel apex.

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