



Stichorkis davidlohmanii (Orchidaceae; Malaxideae), a new species from the southern Philippines

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ABSTRACT: A new Philippine endemic species, *Stichorkis davidlohmanii*, is herein described and illustrated. This new species is comparable to *S. compressa* but distinct by its obovate, slightly conduplicate labellum with a blunt, obtusely rounded when flattened apex.

KEY WORDS: Malaxideae; New species, Orchidaceae; Philippines, Plant Taxonomy, *Stichorkis*, Tropical botany.

INTRODUCTION

Stichorkis Thouars (1809: 318) with *Stichorkis disticha* (Thouars) Pfitzer (*typ. cons.*) as the type species, is represented by approximately 60 species which are found from the Comoro Islands, Mauritius, Reunion to Sri Lanka, India, through Malesia to Fiji. The main centre of diversity is New Guinea from where 23 species are recorded, followed by a second centre of speciation in the Philippines (14 species) (Cootes, 2011).

Materials of a divergent specimen of flowering *Stichorkis* species was collected during the first authors' botanical exploration to one of the mountains of Bukidnon Province, Mindanao on May 2018. Review of protologues (*e.g.* Ames, 1905; Cootes, 2011) and type specimens from across the Philippine archipelago and neighbouring countries revealed that this taxon does not match any other *Stichorkis* species and is therefore described and illustrated below. The measurements and descriptions were based on fresh and spirit materials. The style of description follows the recent works of O'Byrne (2015) and O'Byrne & Gokusing (2017) with general plant descriptive terminology following Beentje (2016). Detailed description and coloured photographs of this new Philippine endemic species as well as notes on its distribution, phenology, and ecology are provided.

TAXONOMIC TREATMENT

Stichorkis davidlohmanii Naive, Cootes & Ormerod, *sp. nov.* **Figs. 1 & 2.**

Type: PHILIPPINES, Northern Mindanao, Bukidnon, Malaybalay City, Mt. Limbawon, 1100 m, 26 May 2018, *M.A.K. Naive 102* (holotype USTH, spirit).

Diagnosis: Similar to *Stichorkis compressa* (Blume) J.J. Wood. However, *S. davidlohmanii* differs significantly in having these following characters: not

flattened pseudobulbs, obovate, slightly conduplicate labellum with a blunt, obtusely rounded when flattened apex and a circular in outline anther cap.

Description: Sympodial, upright, epiphytic herbaceous plant. **Rhizome** creeping, 1–1.5 mm in diameter, terete, scales soon deciduous, shoots 15–22 mm apart. **Pseudobulb** erect, 15–18 mm long by 8–9 mm in diameter, ovoid, green to pale green, covered with caducous bracts, unifoliate. **Leaf** jointed at base, erect to arching, 15–18 cm long by 0.8–1.2 cm wide, glabrous both sides, green, paler beneath, margin entire, apex acute to attenuate. **Inflorescence** arising from the recently matured leaf, up to 11 cm long, shorter than leaves; **peduncle** up to 10 cm long by 0.1–0.2 cm wide, flattened and sharp-edged along its teeth, green; **rachis** up to 3.5 cm long by 0.5–0.6 cm wide across bracts, brownish green to orange brown, with up to 20 flowers, flowering singly in succession; **floral bracts** conduplicate, 5–6 mm long by 1–1.5 mm wide, triangular, apex attenuate. **Flower** facing outwards with dorsal sepal curved backwards, 1–1.5 cm high, 0.8–1 cm wide. **Pedicel-with-ovary** 10–13 mm long by 1–1.5 mm in diameter, cylindrical, slightly grooved, glabrous, russet or reddish brown. **Dorsal sepal** 3-veined, 10–12 mm long by 1.5–2 mm wide, broadly subulate, russet or reddish brown, decurved, margin entire, revolute, apex attenuate to subacuminate. **Lateral sepals** 3-veined, 8–10 mm long by 1–2.5 mm wide, broadly subulate, slightly concave, russet or reddish brown, margin entire, revolute, apex attenuate. **Petals** 1-veined, 10–11 mm long by 0.5–0.8 mm wide, filiform, russet or reddish brown, decurved, margin entire, apex subobtusely. **Lip** large, base pressed against column, 10–15 mm long by 7–10 mm wide, broadly obovate from a broadly clawed base, with central thickening, russet or reddish brown, gently canaliculate all throughout its length, slightly conduplicate especially the apex, base non-auriculate,

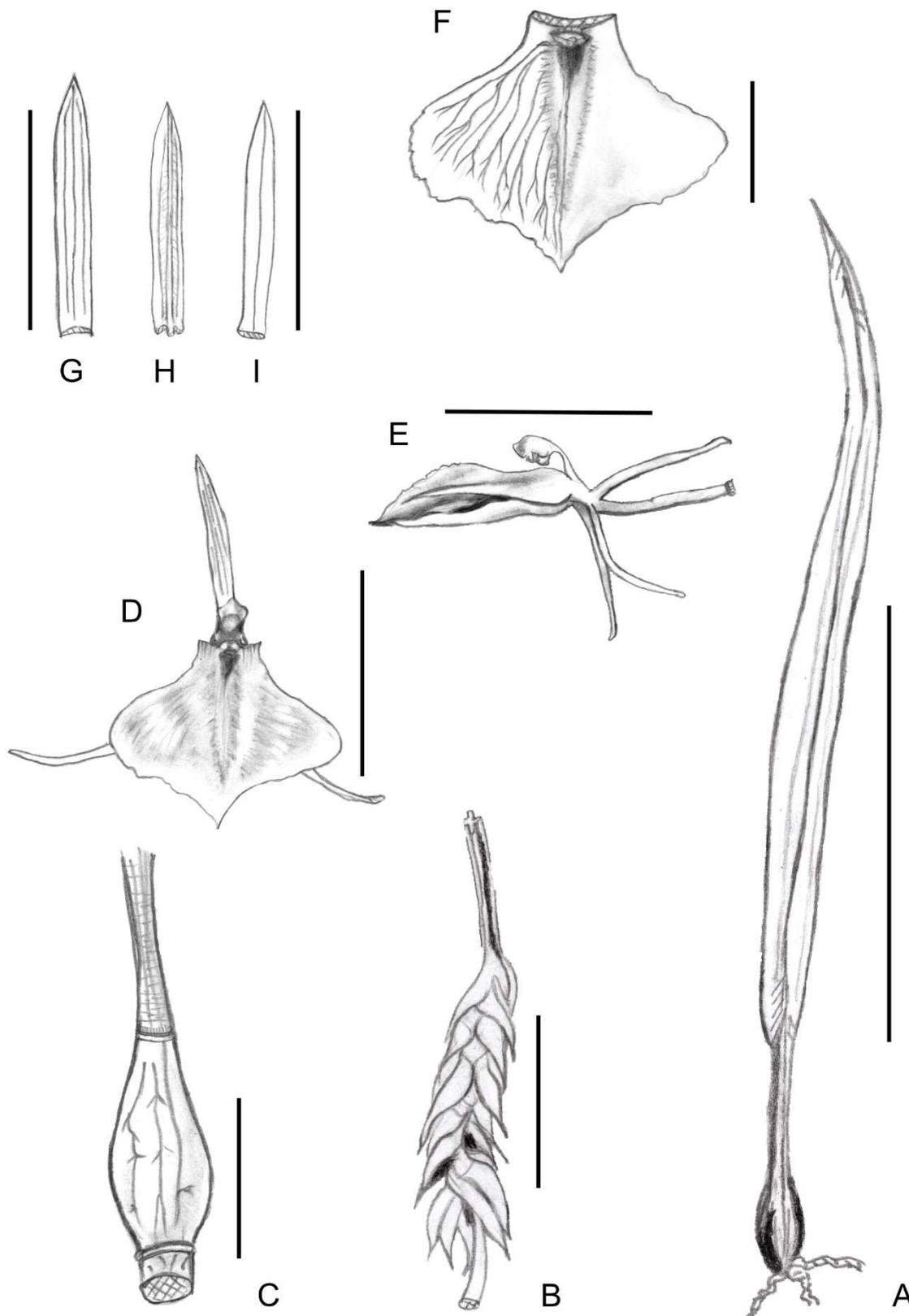


Fig. 1. *Stichorkis davidlohmanii* **A.** Habit, scale bar: 10 cm **B.** Rachis, scale bar: 2 cm **C.** Pseudobulb **D.** Flower (front view), scale bar: 1 cm **E.** Flower (profile view), scale bar: 1 cm **F.** Labellum, scale bar: 1 cm **G.** Dorsal sepal, scale bar: 1 cm **H.** Sepal I. **I.** Petal. Drawn by: Gelli Dane T. Petros.

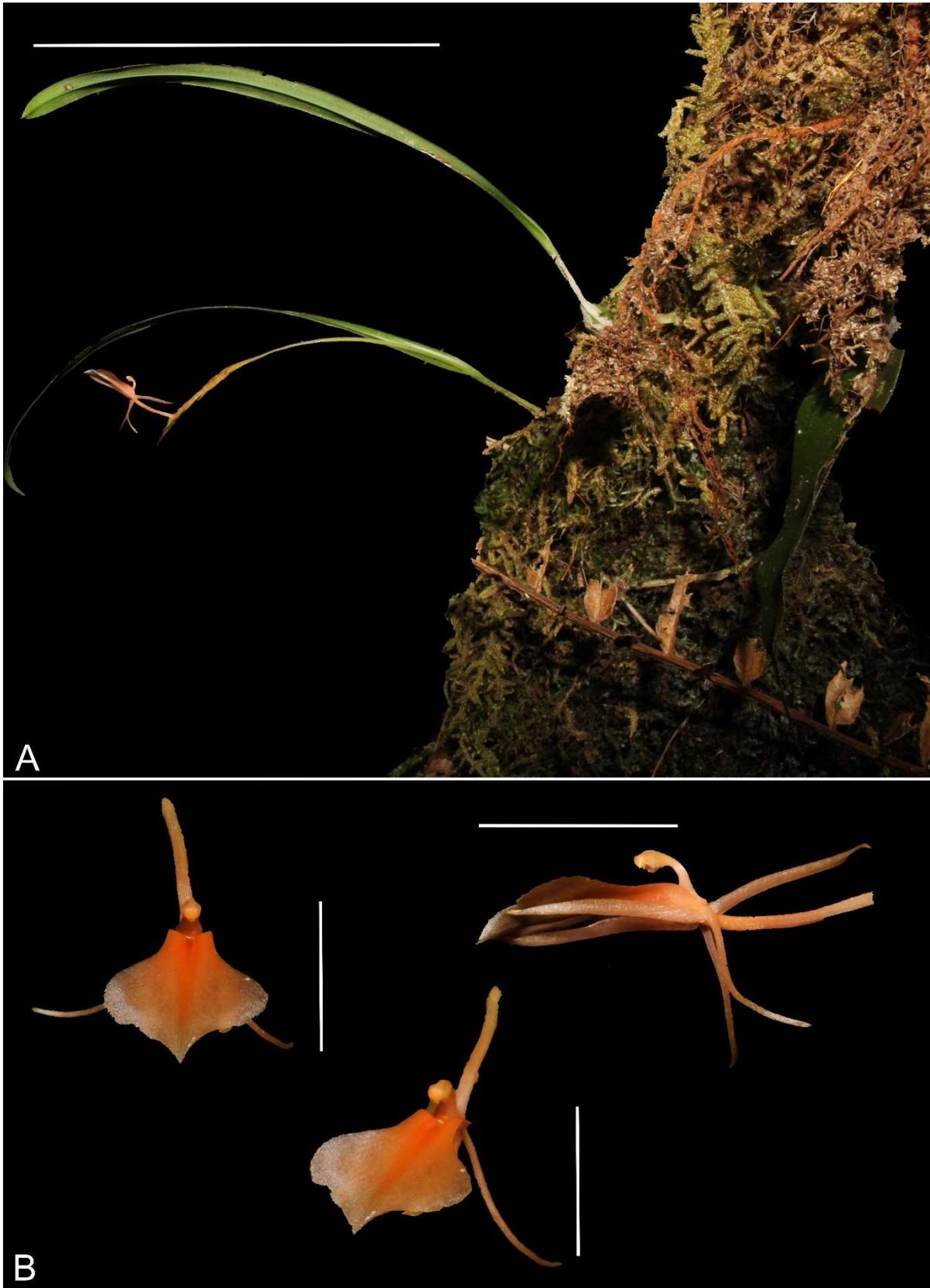


Fig. 2. *Stichorkis davidlohmanii* A. Habit, scale bar: 10 cm B. Detail of flower, scale bars: 1 cm. Photos by: M.A.K. Naive.



margin membranous, apex blunt, obtusely rounded when flattened, delicately and minutely serrulate or toothed. **Column** porrect, arching distally, 3–4 mm long, cylindro-conical, constricted behind stigma; **pollinia** 4 in two pairs, each pair subequal, 0.3–0.4 mm long, obovoid, compressed; **anther cap** c. 0.7–0.8 mm, almost circular in outline. **Capsule** not observed.

Distribution: At present, *S. davidlohmanii* is a Philippine endemic species and is only known from its type locality.

Ecology: Found growing along with moss cushions in the base of the trunk in the primary broad-leaved montane forests with humid and close canopy environment at elevations between 1000 to 1300 m asl.

Phenology: Observed flowering in the wild between April to June.

Etymology: This species is named in honor of Prof. Dr. David J. Lohman to recognize his efforts to document, study, and preserve the biota of Southeast Asia while mentoring the next generation of scientists, including the first author.

Conservation status: The species is only known from its type locality so far and a single population is only found with 8 to 10 individuals. Following IUCN (2017), we herein propose this species to be treated as ‘Data Deficient’ (DD). Further surveys are needed, as there is insufficient information to assess the status of this species.

Notes: Based on overall morphology, this species is closely allied to *Stichorkis compressa*. However, *S. davidlohmanii* differs significantly from *S. compressa* in having a not flattened pseudobulb (vs. flattened pseudobulb), obovate, slightly conduplicate labellum (vs. orbicular, strongly bent labellum) with blunt, obtusely rounded when flattened apex (vs. shortly mucronate, emarginate apex) and a circular in outline anther cap (vs. ovoid anther cap).

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