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# *Hippeophyllum microphyllum*, a New Species of Orchidaceae from Papua New Guinea

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**ABSTRACT.** *Hippeophyllum microphyllum* S. C. Chen, a new species of Orchidaceae from Papua New Guinea, is described and illustrated. It is distinct from the other *Hippeophyllum* by having very narrow leaves 1.5–2 mm wide, minute flowers less than 1 mm across, and irregularly serrate-margined petals.

**Key words:** *Hippeophyllum*, *Oberonia*, Orchidaceae, Papua New Guinea.

*Hippeophyllum* Schlechter is a small genus with 13 species known from Malaysia, Indonesia, Papua New Guinea, the Philippines, and China. The genus is closely related to *Oberonia* Lindley by leaf characters and floral structure, but differs by having a creeping, elongate rhizome, on which the equitant-leaved stems appear at a certain distance apart.

The orchid described here occurs in Papua New Guinea. It is remarkable for its very narrow leaves 1.5–2 mm wide, minute flowers less than 1 mm across, and irregularly serrate-margined petals. These are all rare features in *Hippeophyllum*, by which the new species is easily distinguishable from the other members of the genus. It is of interest that *H. microphyllum* is similar in floral structure, such as bilobed lip with 2 basal auricles and irregularly serrate-margined petals, to some species of *Oberonia*, such as *O. ensiformis* (Smith) Lindley, rather than those of *Hippeophyllum*. It may not be appropriate to separate *Hippeophyllum* from *Oberonia* based merely on whether or not the creeping rhizome is present.

***Hippeophyllum microphyllum*** S. C. Chen, sp. nov. TYPE: Papua New Guinea. Vogelkop Peninsula, Ije River valley, path from Banfot to Sudjak, alt. 840 m, 3 Nov. 1961, *P. van Royen* & *H. Sleume* 7662 (holotype, K). Figure 1.

Haec species insignis a congeneris nobis notis foliis

angustissimis (1.5–2.0 mm latis), floribus minutis 0.8 mm in diam. atque petalis margine irregulariter serratis bene distincta est.

Plants epiphytic, glabrous; rhizome elongate, creeping, 3–6 cm long, 1–1.5 mm diam., remotely noded; sheaths membranous, translucent, cylindric, 2 mm long; roots 2 or 3 at the bottom of each equitant-leaved stem; stems 5–10(–15) mm apart, 1–1.5 cm long, 4- to 6-leaved. Leaves laterally compressed, equitant, subfalcate-linear, 1–3 cm  $\times$  1.5–2 mm, light green, long-acuminate at apex, broadly membranous-margined toward the base, obscurely articulate. Scape 3–4.5 cm long, terminating in a many-flowered raceme; peduncle 2–3 mm long; bracts linear, membranous, translucent, 0.8  $\times$  0.2 mm; pedicel with ovary 0.5 mm long, not resupinate. Flowers ca. 0.8 mm across, red; sepals broadly ovate-elliptic, 0.5  $\times$  0.4 mm, obtuse; petals narrowly elliptic-lanceolate, 0.5  $\times$  0.2 mm, acuminate, irregularly serrate at the margin; lip broadly ovate-oblong in outline, 0.45  $\times$  0.4 mm, constricted near the middle and bilobed at apex, forming two basal auricles and two apical lobes; auricles and lobes erose at the margins; column ca. 0.1 mm long, dilated at apex. Capsule ellipsoid, 2  $\times$  1.7 mm.

This new species is known only from the type locality, at an elevation of 840 m, growing on dead wood in an oak forest. So far as we know, most species of *Hippeophyllum* and *Oberonia* grow high up on trees or cliffs, and they are usually invisible and inaccessible. The species described here is the smallest plant in the genus. Its poor collection seems due to being difficult to access or invisible rather than rarity.

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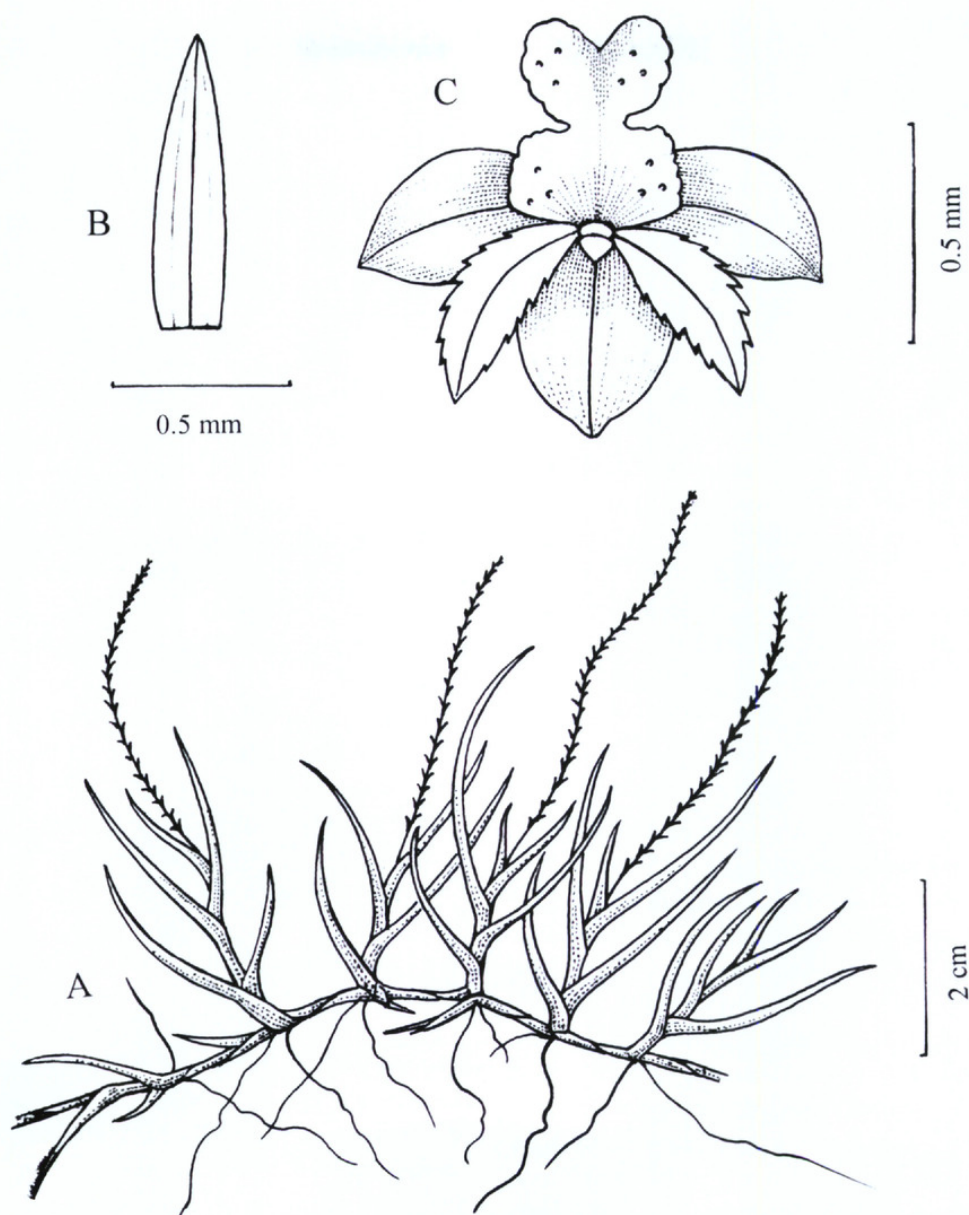


Figure 1. *Hippeophyllum microphyllum* S. C. Chen. —A. Plant. —B. Bract, front view. —C. Flower. Drawn from the holotype.



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