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Psilochilus dressleri (Orchidaceae), a new species from the Darién Gap, Panama

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Abstract

A new species, *Psilochilus dressleri*, is described and illustrated. It resembles *P. macrophyllus*, but both species differ in the lip form.

Introduction

The Darién Gap (Spanish: *Tapón del Darién*) is biologically one of the poorest recognized areas of the world. It embraces border regions of Colombia and Panama, but the exact limits of the region have never been defined. It is part of the Tumbes-Chocó-Magdalena biodiversity hotspot (formerly Chocó-Darién-Western Ecuador), which extends from the Panamanian Province of Darién through the Chocó region of western Colombia, along the west coast of Ecuador and the dry forests of eastern Ecuador to the northwestern part of Peru. The region as a whole in Panamanian territory is still relatively understudied in the aspect of its orchid diversity, especially when compared to the neighboring Colombia and Costa Rica. The most recent catalogue of Orchidaceae occurring in Costa Rica was compiled by Dressler (2003) and contains 1,318 species. A Colombian list of orchids was published by Ortiz-Valdivieso & Uribe-Vélez (2007), and contained over 3,500 taxa. In the catalogue of Panamanian vascular plants (Correa *et al*.,2004) 1,150 orchid species were included.

Duke & Porter (1970) reported the occurrence of 66 orchid species from Panamanian part of the Darién Gap, and recently this number was elevated to 115 by Correa *et al*. (2004). In neither catalogue any representative of *Psilochilus* Barbosa Rodrigues (1882: 272) was reported from this region. This genus was described in 1882 (Barbosa Rodrigues 1882) based on *P. modestus* Barbosa Rodrigues (1882: 273), but its representatives were most often included in *Pogonia* Jussieu (1789: 65) by Cogniaux (1906) and Williams (1970) or in *Cleistes* Richard ex Lindley (1840: 409) by Pfitzer (1887). The reestablishment of *Psilochilus* was proposed by Ames (1922). Representatives of this Neotropical genus are characterized by the slender, erect stem that is remotely several-leaved. The leaves are fleshy, sessile or petiolate, sheathing at the base. The resupinate flowers are arranged in a terminal raceme. Petals and sepals are subsimilar and free. The lip is clawed and 3-lobed. The gynostemium is elongate, slender, slightly swollen at the apex. Four narrowly oblong or two bipartite, powdery pollinia are produced (Szlachetko & Rutkowski 2000, Pansarin & Amaral 2008). The thin flowers of *Psilochilus* that are often damaged in the dried material are the reason for the problems with estimation of the actual diversity of this taxon. Recent studies on those orchids revealed the existence of several undescribed species in northern South America and Central America (Kolanowska 2013, Kolanowska & Szlachetko 2012, 2013). During the revision of herbarium material deposited in the Florida Museum of Natural History a distinctive species of *Psilochilus* was found and it is here described as new.

Taxonomic Treatment

Psilochilus dressleri Kolan., *sp. nov.* (Fig. 1)

Species similar to *P. macrophyllus* (Lindl.) Ames, distinguished by distinctly clawed lip with prominent lateral lobes that extend up to two-thirds of the mid-lobe and relatively small mid-lobe suborbicular in outline.

Type:—PANAMA. Darién: Ridge north of Cerro Pirre, 1050–1200 m, 12 July 1977. *R.L. Dressler 5663* (holotype FLAS!).

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Plant ca. 36 cm tall, leafy throughout. Leaves 6–7 × 2.9–3.4 cm wide, ovate, subacute; petiole less than 0.5 cm long. Inflorescence about 2.5 cm long, few-flowered. Floral bracts up to 10 mm long. Ovary 16 mm long. Flowers rather inconspicuous, petals and sepals pale green, lip cream with purple mark. Dorsal sepal 19 × 2 mm, concave, oblong-lanceolate, obtuse, 3-veined. Lateral sepal 18 × 2 mm, falcate, linear, subacute, 3-veined. Petals 17 × 1.5 mm, slightly falcate, linear, subobtuse, 3-veined. Lip 14 mm long, 6 mm wide across the lateral lobes; claw about 6 mm long; lateral lobes 7.5 × 2.5 mm, large, obliquely ovate-falcate, obtuse, extending to two-thirds of the mid-lobe, internal parts overlapping the mid-lobe; isthmus deep; mid-lobe 4 mm long and about the same width, suborbicular, obtuse, margins entire; disc with 3 thickened veins. Gynostemium ca. 16 mm long.

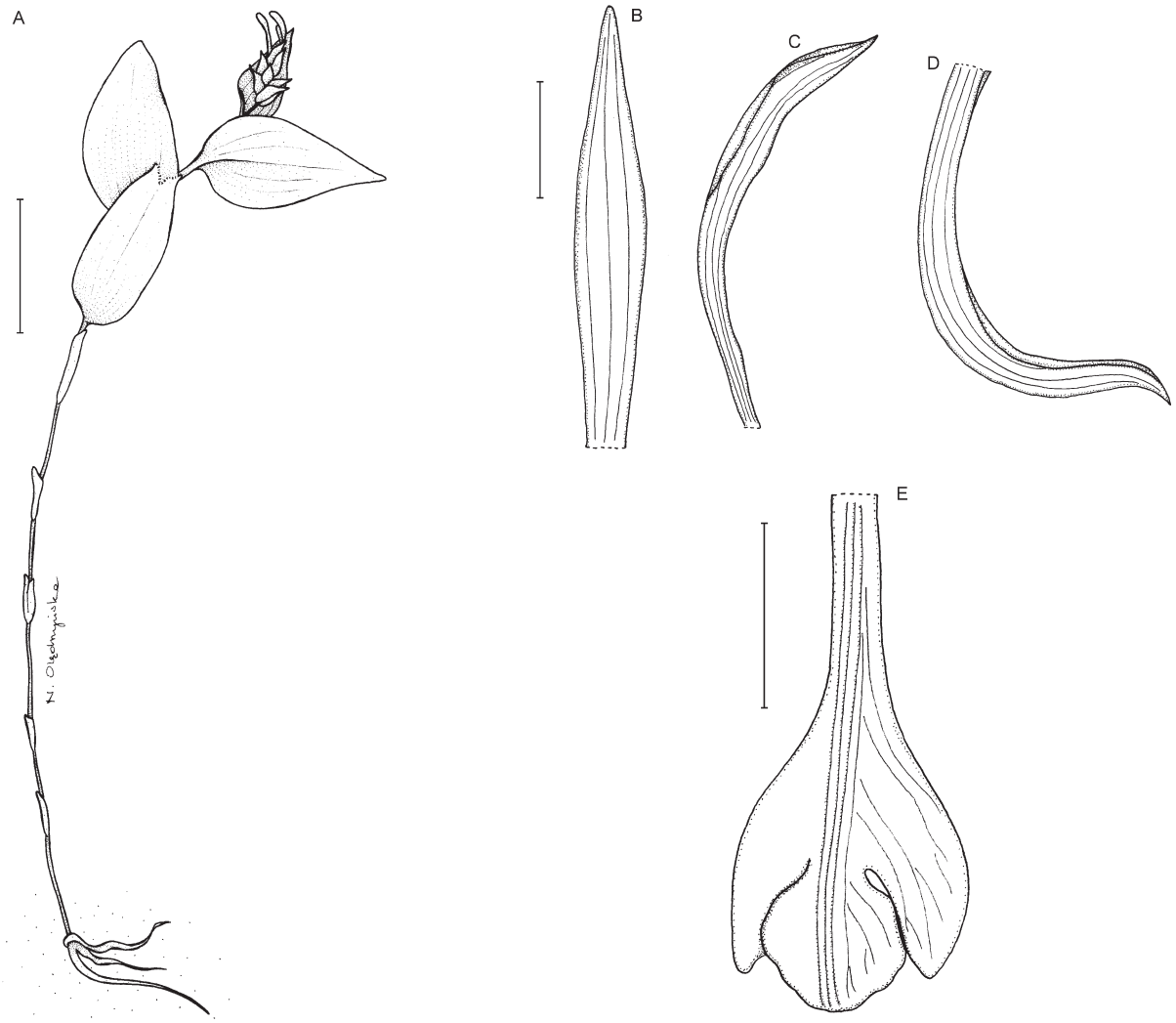

FIGURE 1. *Psilochilus dressleri*. Dissected perianth. A. habit. Scale bar = 5 cm. B. Dorsal sepal. C. petal. D. Lateral sepal. E. Lip. Scale bars = 5 mm. Drawn from the holotype.

Distribution and ecology:—Known so far exclusively from the Darién Gap, where it was found growing in wet forest at the altitude of about 1,050–1,200 m. Type material with flowers in July.

Etymology:—Dedicated to Robert L. Dressler, eminent orchidologist and the collector of the type specimen.

Taxonomic notes:— This species resembles *Psilochilus macrophyllus* (Lindley 1858: 335) Ames (1922: 45) with relation to their subsessile leaves but it differs by the prominent, large lateral lobes of the lip that extends to two-thirds of the mid-lobe and relatively small mid-lobe which is almost twice shorter than lateral lobes and suborbicular in outline, with entire margins. Moreover, in *P. macrophyllus* the lip is subequal in length to the sepals (vs much shorter than sepals in *P. dressleri*) and it is only shortly clawed (vs. claw prominent). The differences in the lip form between the two species are presented in Fig. 2. From another Panamanian representative of the genus, *P. physurifolius* (Reichenbach 1859: 324) Løjtnant (1977: 168), the new species is easily distinguished by the subsessile leaves (vs. leaves distinctly petiolate) and the prominent lateral lobes of the lip (vs. short lateral lobes).

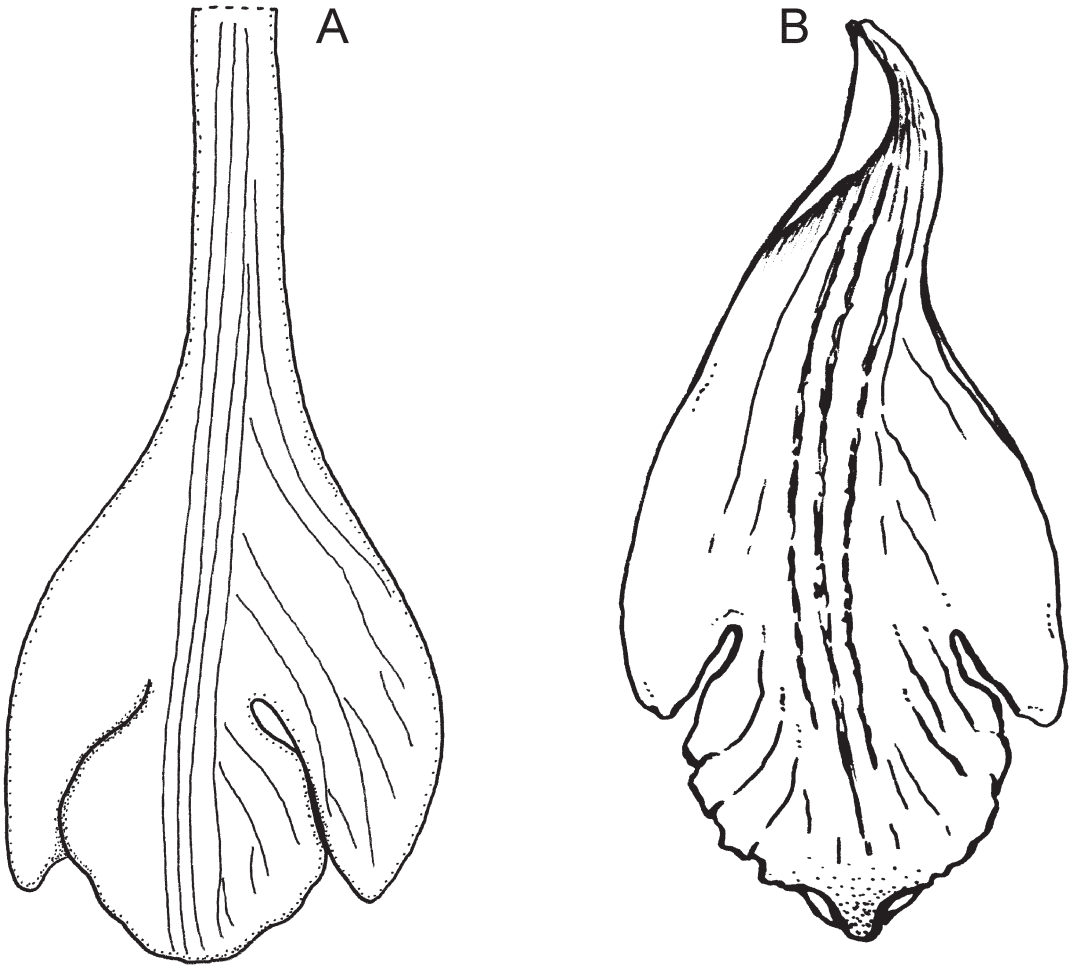

FIGURE 2. Comparison of the lip shape of *Psilochilus dressleri* (A. Drawn from the holotype) and *P. macrophyllus* (B, redrawn by A. Król from Ames & Correll 1952).

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