

A NEW SPECIES OF *PORROGLOSSUM* (ORCHIDACEAE, PLEUROTHALLIDINAE) FROM COLOMBIA

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Abstract. The Neotropical orchid genus *Porroglossum* Schltr. is one of most poorly recognized genera within Pleurothallidinae, partly due to an insufficiency of herbarium material. An examination of material collected recently in the Colombian department of Putumayo revealed the existence of a new species of *Porroglossum* which is described, illustrated and placed within a key to identification of Colombian *Porroglossum* species.

Key words: Andes, biodiversity, Neotropics, Putumayo, taxonomy

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INTRODUCTION

The genus *Porroglossum* Schltr. was proposed in 1920 by Rudolf Schlechter to encompass species characterized by their apical anther and elongated, curved column foot with the free apex previously classified under *Masdevallia* Ruiz & Par. The author transferred to the new taxon just two species: *P. colombianum* Schltr. [currently classified under *P. mordax* (Rchb. f.) Sweet] and *P. muscosum* (Rchb. f.) Schltr., but further studies on Pleurothallidinae (Luer 1987) resulted in many additional species transfers from *Masdevallia*.

Despite the ongoing discussion on the delimitation of genera within Pleurothallidinae (Pridgeon *et al.* 2001; Luer 2002), the taxonomic separateness of *Porroglossum* is not in doubt. Plants of the genus are characterized by sepals connate to near the middle, forming a sepaline cup, with apices usually contracted into tails and small cartilaginous petals (Luer 1987). *Porroglossum* species developed a remarkable pollination system. The lip snaps shut when stimulated by an insect, thereby pushing the pollinator against the column and ensuring that the pollinia will be attached to its body. This lip movement is made possible by the relaxation of its long strap-like claw, thereby

reflexing the lip backward. Although this reproduction mechanism has been precisely described by scientists (e.g., Bean 1887; Oliver 1888; Luer 1987), no such event has been recorded in nature (Merino *et al.* 2010).

Currently *Porroglossum* includes 43 species whose distribution is limited to the Andean region. The geographical range of the genus extends from Colombia and Venezuela to Bolivia and Brazil, with the greatest diversity observed in Ecuador (Pridgeon 2005; Merino *et al.* 2010; Luer 2011). With 10 species reported so far (Ortiz Valdivieso & Uribe Vélez 2007), Colombia is considered to have the second-highest concentration of *Porroglossum* species (Merino *et al.* 2010).

During the course of study on Orchidaceae occurring in the Colombian department of Putumayo, a distinct *Porroglossum* species was found. It is described here as new.

DESCRIPTION OF THE NEW SPECIES

Porroglossum medinae Kolan. & Szlach., *sp. nov.*

Figs 1 & 2

Species similar to Peruvian *P. meridionale* P. Ortiz and *P. peruvianum* Sweet, from which it differs by its short-petiolate leaf, single-flowered inflorescence, oblong

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petals narrowing above the middle into a rounded apex and minutely ciliate in the apical part, cuneate-triangular lip with 3-veined disc, and pyramidal basal callus.

HOLOTYPE: COLOMBIA, Putumayo, Valle del Sibundoy. Km 5 new road San Francisco-Mocoa, alt. 2300 m, Coll 5 May 2012, Cult. R. Medina 577 (MEDEL).

Caespitose plants. Ramicaul erect, slender, up to 1 cm long. Leaf erect, coriaceous, minutely verrucose, short-petiolate; blade 1.8–2.3 cm long, 0.8–1.0 cm wide, elliptical, apex obtuse, minutely 3-dentate; petiole up to 0.5 cm long. Inflorescence single-flowered; peduncle *ca* 11 cm long, slender, glabrous with *ca* 3 distant tubular sheaths. Floral bract tubular, 4–5 mm long. Pedicel 3 mm long. Ovary verrucose, 8–9 mm long. Flowers resupi-

nate, sepals brownish yellow with darker tails, petals yellow, lip white with purple flush in the central part. Sepals glabrous, 3-veined. Dorsal sepal 16–17 mm long in total, *ca* 5 mm wide, connate to lateral sepals for *ca* 2 mm, ovate-lanceolate, apical thickened part 3.5–4.0 mm long, slender. Lateral sepals 6.4–6.6 mm long, 4.5–5.0 mm wide, obovate, with slender thickened tails *ca* 8 mm long, connate for *ca* 3.5–3.7 mm. Petals 3.9–4.0 mm long, *ca* 1 mm wide, 1-veined, oblong, narrowed above the middle, apex rounded, subfalcate. Lip 3.8–4.0 mm long, 3.5–3.8 mm wide, cuneate-triangular, apiculate, apicule small, rounded, disc 3-veined, minutely ciliate in apical part; basal callus pyramidal. Gynostemium stout, *ca* 3 mm long, column-foot *ca* 3 mm long.

ETYMOLOGY. Named to honor Ramiro Medina, an orchid enthusiast who cultivated the type specimen.

HABITAT AND DISTRIBUTION. Known only from the type locality where it grows in disturbed humid montane forest at *ca* 2300 m a.s.l.

NOTES. This species is unique in the genus by having a single-flowered inflorescence. No additional floral bracts or flower buds were seen on any of the peduncles. *Porroglossum medinae* is similar to Peruvian *P. meridionale* and *P. peruvianum* from which it differs by its short-petiolate leaf, oblong petals narrowed above the middle to a rounded apex, minutely ciliate in the apical part, cuneate-triangular lip with 3-veined disc, and pyramidal basal callus. From *P. meridionale* it is also easily distinguished by the different flower color (light purple with yellow tails and purple lip in *P. meridionale*). The new species resembles Ecuadorian *P. andreetae* Luer, from which it differs by its larger flowers as well as by the shape of the lip and petals.

KEY TO THE COLOMBIAN SPECIES OF
PORROGLOSSUM (after Luer 1987, modified)

1. Rhizome long-repent *P. eduardi* (Rolfe) Sweet
- 1* Rhizome caespitose or shortly repent 2
2. Inflorescence a single flower
 *P. medinae* Kolan. & Szlach.

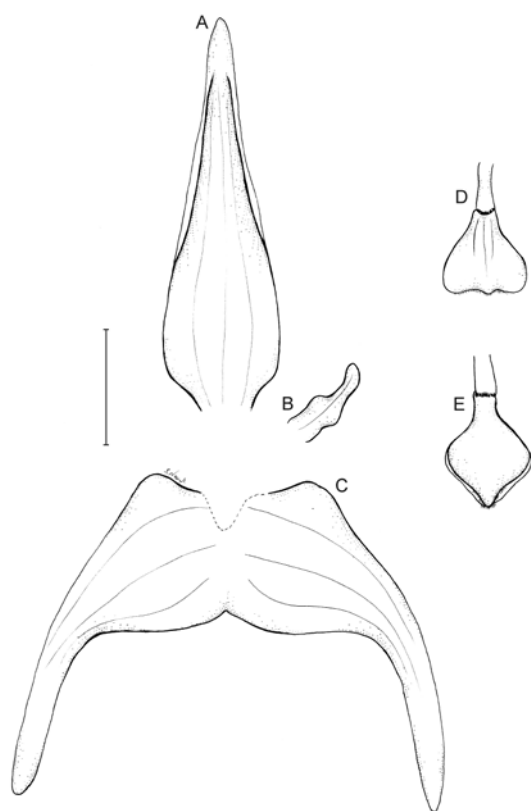


Fig. 1. *Porroglossum medinae* Kolan. & Szlach., *sp. nov.* – dissected perianth. A – dorsal sepal, B – petal, C – lateral sepals, D & E – lip. Drawn by S. Nowak from the holotype. Scale bar = 5 mm.

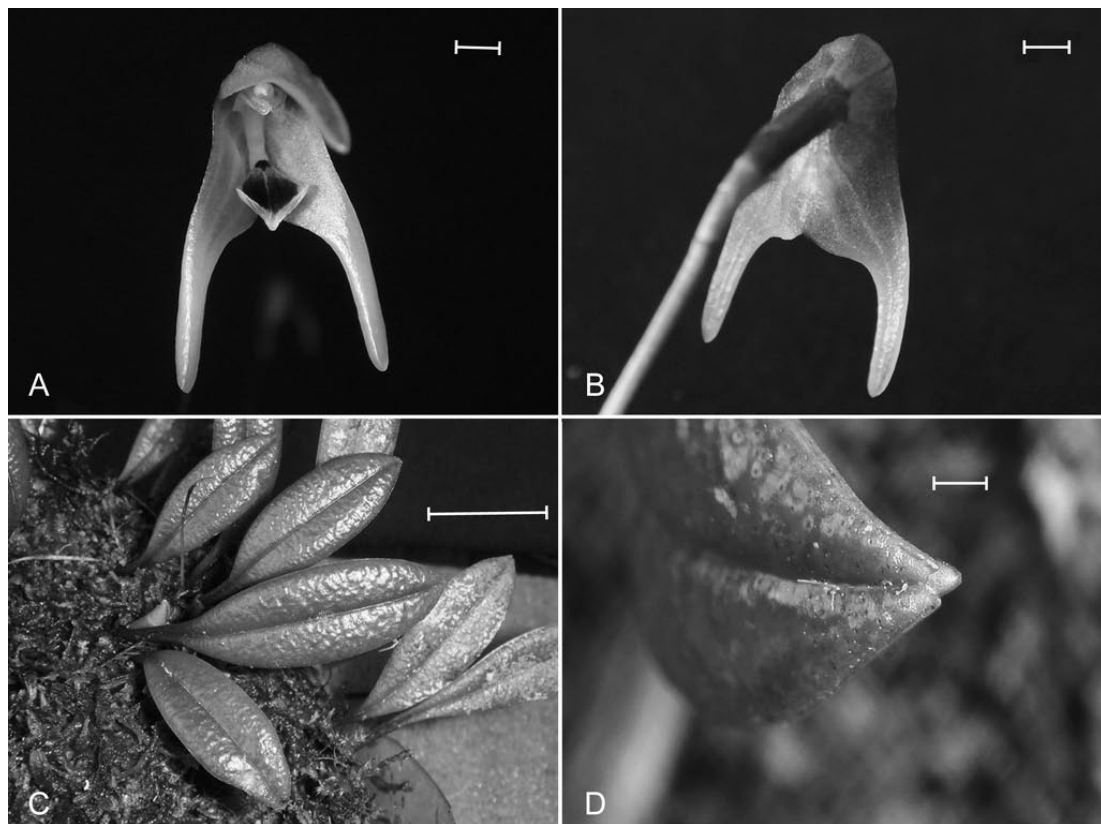


Fig. 2. *Porroglossum medinae* Kolan. & Szlach., sp. nov. A – flower (front view), B – flower (back view), C – leaves; D – leaf apex. Photos by R. Medina. Scale bars: A, B & D = 1 mm; C = 10 mm.

- 2* Inflorescence a few-flowered raceme 3
- 3. Peduncle pubescent 4
- 3* Peduncle glabrous 6
- 4. Apex of the synsepal acute... *P. parsonsii* Luer
- 4* Apex of the synsepal indented 5
- 5. Tails of the sepals clavate-thickened
..... *P. echidna* (Rchb. f.) Garay
- 5* Tails of the sepals slender
..... *P. muscosum* (Rchb. f.) Schltr.
- 6. Dorsal sepal verrucose, not contracted into a tail
..... *P. mordax* (Rchb. f.) Sweet
- 6* Dorsal sepal not verrucose, contracted into a tail
..... 7
- 7. Tail of the dorsal sepal slender, shorter than the
blade 8
- 7* Tail of the dorsal sepal slender or stout, subequal or
longer than the blade 10
- 8. Leaves reticulated *P. rodrigoii* Sweet

- 8* Leaves not reticulated 9
- 9. Tails of the lateral sepals thickened
..... *P. nutibara* Luer & Escobar
- 9* Tails of the lateral sepals slender
..... *P. olivaceum* Sweet
- 10. Dorsal sepal ovate *P. sergioi* P. Ortiz
- 10* Dorsal sepal transversely oblong-ovate
..... *P. actrix* Luer & R. Escobar

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