

A NEW SPECIES OF *PLEUROTHALLIS* (ORCHIDACEAE) FROM COLOMBIA

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Abstract. A new species of *Pleurothallis* subsect. *Antenniferae* Luer is described and illustrated based on Colombian material. The taxonomic affinity of the novelty is briefly discussed. An updated key for identification of Colombian representatives of *P.* subsect. *Antenniferae* is presented.

Key words: *Antenniferae*, Colombia, distribution, new species, *Pleurothallidinae*, taxonomy

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INTRODUCTION

The genus *Pleurothallis* Luer is one of the largest among the Neotropical Orchidaceae. The great variation of both morphological and floral characters observed within this taxon has led to much discussion of its infrageneric classification and delimitation of smaller genera (e.g., Borba *et al.* 2000; Pridgeon & Chase 2001; Pridgeon *et al.* 2001; Luer 2002). The first comprehensive study of the taxonomy of *Pleurothallis* (Luer 1986) recognized 29 subgenera within three ‘affinities’, and the nominal subgenus was divided initially into four sections. In the modified classification, Luer (1998, 1999) reduced the number of sections within *Pleurothallis* subg. *Pleurothallis* to three. Two of them, *Abortivae* Luer and *Truncatae* Luer, were described as unispecific taxa, and the nominal section was divided into seven subsections distinguishable by leaf form (petiolate or sessile) inflorescence structure and floral characters (lip shape).

Pleurothallis subsect. *Antenniferae* Luer, typified by *P. antennifera* Lindl. (Luer 1999), included 38 species characterized by the well-developed ramicauls which are commonly longer than the leaf. The inflorescence of members of

this subsection usually is racemose, and arises from the leaf base. The flowers are resupinate. The dorsal sepal is essentially free, while the lateral sepals are connate, forming a concave synsepal. The petals are entire, narrowly oblong to linear. The lip usually is variously recurved near the middle (90° or 180°). The gynostemium is semiterete and short, and the column foot is abbreviated. *Pleurothallis* subsect. *Antenniferae* is distinguished from the most similar *P.* subsect. *Longiracemosae* by the presence of distinct or prolonged lip lateral lobes and commonly linear petals (Luer 1998).

Representatives of *P.* subsect. *Antenniferae* are restricted in their distribution to South America, reported from Colombia to Bolivia, including Trinidad and the Guyana Shield. Species diversity is highest in the northern Andes: Ecuador (28 species) and Colombia (16 species). Populations usually grow in humid forests (Luer 1999).

During studies of Colombian orchids we found a distinctive representative of the subsection. Because it does not match the morphological characteristics of any known taxon it is described here as a new species.

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TAXONOMIC TREATMENT

***Pleurothallis narinoensis* Rykaczewski & Kolan.,
*sp. nov.*** Fig. 1

Species similar to *P. antennifera* Lindl., *P. ramificans* Luer and *P. taurus* Luer, distinguished by the proliferating ramicauls, linear-elliptic leaves, linear-lanceolate, acute lip lateral lobes, and semi-circular middle lobe with irregular margins, covered at the base by a transverse foveolate ridge and with a linear-oblong, acute apicule.

HOLOTYPE: COLOMBIA, DEPT. NARIÑO, Páramo de Quilinsayaco, between La Cocha and Santiago, Alt. 2700–3000 m, 1 August 1961, *Garay L.A. 424, McClennen C.E. & Kapuler A.* (MO 6484977).

Large, repent plants, *ca* 40 cm tall. Roots slender. Ramicauls 7–11 cm long, erect, proliferating, enclosed by one sheath at base and one in middle of

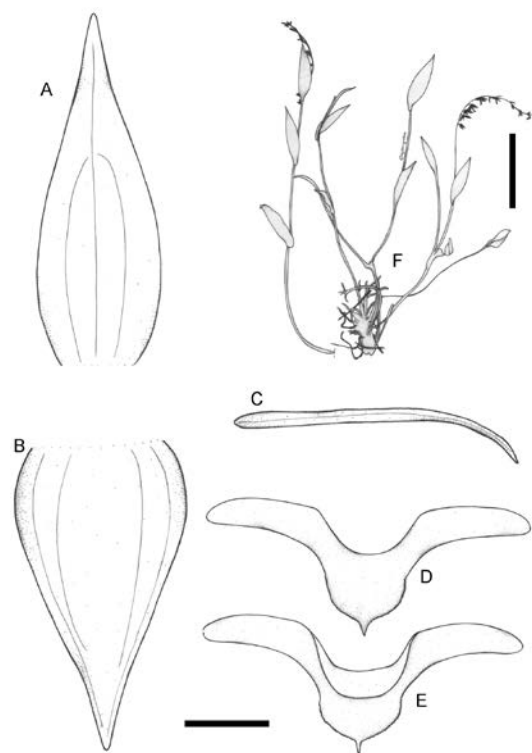


Fig. 1. *Pleurothallis narinoensis* Rykaczewski & Kolan., *sp. nov.* A – dorsal sepal, B – synsepal, C – petal, D – lip: dorsal view, E – ventral view, F – whole plant. Scale bar A–E = 2 mm, F = 10 cm. Drawn by N. Olędzka.

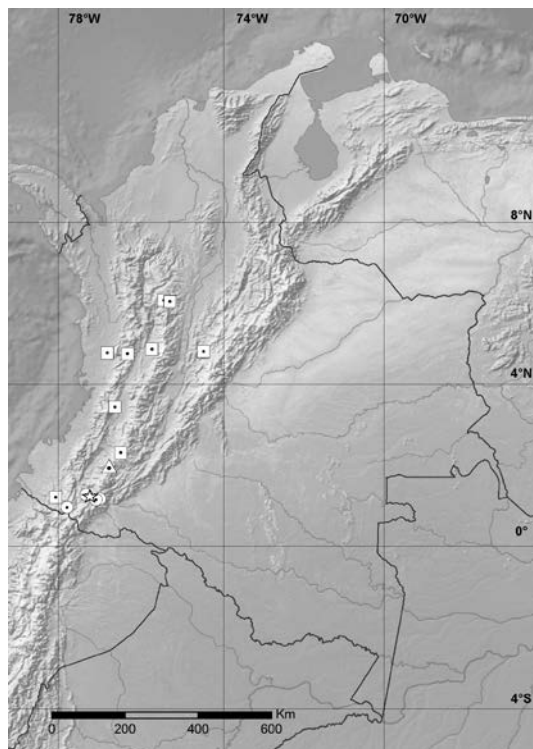


Fig. 2. Distribution of *Pleurothallis narinoensis* Rykaczewski & Kolan., *sp. nov.* (☆), *P. taurus* Luer (△), *P. ramificans* Luer (○), and *P. antennifera* (□) in Colombia.

ramicaul, glabrous. Leaf 30–60 mm long, 11–16 mm wide, linear-elliptic, apex apiculate, acute, margins entire. Floral bracts 4–5 mm long, tubular, acuminate, glabrous. Raceme up to 20 cm long, longer than leaf, loose, simultaneously few-flowered. Spathe 12–15 mm long. Ovary 3.5 mm long. Pedicel 3–4 mm long. Dorsal sepal 8 mm long, 2.7 mm wide, lanceolate-ovate, obtuse, concave, margins entire, 3-veined. Lateral sepals 7 mm long, 4 mm wide, connate with triangular, acute, 4-veined synsepal. Petals 7.5 mm long, 0.8 mm wide, linear, acute at apex, margins glabrous, 1-veined. Lip 3-lobed, 3 mm long, 7.5 mm across lateral lobes, 3-veined; lateral lobes 3 mm long, 1.1 mm wide, linear-lanceolate, acute; middle lobe 1.5 mm long, semicircular with linear-oblong, acute apicule 0.5 long, 0.2 mm wide, margin irregular, base covered by transverse foveolate ridge. Gynostemium 1.5 mm long, slightly widened at base, stout, terete.

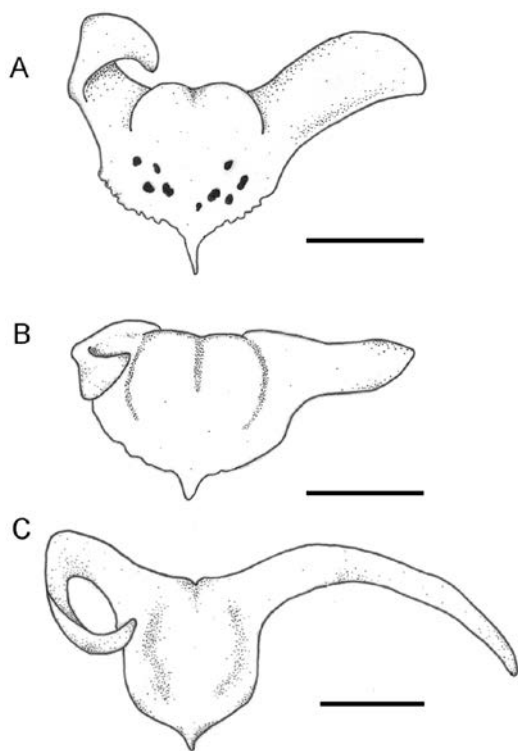


Fig. 3. Lip form of *Pleurothallis antennifera* Lindl. (A), *P. ramificans* Luer (B) and *P. taurus* Luer (C). Scale bars = 1 mm. Redrawn by M. Rykaczewski from Luer 1999, figs 2, 26, 33 (permission granted by Missouri Botanical Garden Press, St. Louis).

HABITAT, ECOLOGY AND DISTRIBUTION. *Pleurothallis narinoensis* was found in wet paramo vegetation among scrub at 2700–3000 m a.s.l. Flowering occurs in August. So far this species is known exclusively from a single collection made in the southern Colombian Andes (Fig. 2).

TAXONOMIC NOTES. The proliferating ramicauls observed in the new species occur commonly in *Pleurothallis taurus* and *P. ramificans*, rarely in *P. antennifera*. Linear-elliptic leaves are observed in *P. ramificans* and *P. narinoensis*. Both *P. taurus* and *P. antennifera* produce elliptic-ovate leaves. In both *P. ramificans* and *P. antennifera* the lip lateral lobes are oblong; their length is subequal to the middle lobe width. Long lip lateral lobes are observed in *P. taurus* but in this species the middle lobe of the lip is shortly acuminate, with an entire margin.

Irregular margins of the middle lobe are found in *P. antennifera* and *P. ramificans*. The lip forms of the three discussed species are presented in Fig. 3.

KEY TO THE COLOMBIAN SPECIES OF
PLEUROTHALLIS SUBG. *PLEUROTHALLIS* SECT.
PLEUROTHALLIS SUBSECT. *ANTENNIFERAE*
(Luer 1999, modified)

1. Leaf narrowed into subpetiolate base 2
- 1* Leaf sessile 3
2. Lip middle lobe obtuse to rounded
..... *P. pulvinaris* Luer & R. Escobar
- 2* Lip middle lobe oblong, acute ... *P. tuzae* Luer
3. Leaf base cordate 4
- 3* Leaf base cuneate 5
4. Sheaths of ramicaul inflated
..... *P. manicosa* Luer & R. Escobar
- 4* Sheaths of ramicaul not inflated
..... *P. penduliflora* Kraenzl.
5. Lip lateral lobes narrow 6
- 5* Lip lateral lobes broad 8
6. Lip lateral lobes longer than middle lobe ... 7
- 6* Lip lateral lobes subequal in length to middle lobe
..... *P. ramificans* Luer
7. Lip middle lobe shortly acuminate, with entire margin *P. taurus* Luer
- 7* Lip middle lobe with acute appendix, margin irregular ... *P. narinoensis* Rykaczewski & Kolan.
8. Lip with lobe-like lateral margins 9
- 8* Lip with well-demarcated lateral lobes 11
9. Lip with basal lobes ... *P. imbaburae* Luer & Hirtz
- 9* Lip without basal lobes 10
10. Lip not acutely revolute
..... *P. cymbisepala* Schltr.
- 10* Lip acutely revolute
..... *P. revoluta* (Ruiz & Pav.) Garay
11. Lip lateral lobes elongate, narrow 12
- 11* Lip lateral lobes antrorse, broad 14
12. Lip lobes descending
..... *P. trifurcata* Luer & Hirtz
- 12* Lip lobes antrorse, incurved 13
13. Lip lateral lobes subequal in length to middle lobe
..... *P. brachiata* Luer
- 13* Lip lateral lobes longer than middle lobe
..... *P. hippocreptica* Luer & R. Escobar
14. Lip middle lobe reflexed 180°
..... *P. bicochlearis* Luer
- 14* Lip middle lobe reflexed 90° 15

15. Lip middle lobe round, minutely apiculate
 *P. antennifera* Lindl.
 15*. Lip middle lobe long-apiculate 16
 16. Synsepal deeply concave, lip lateral lobes nar-
 rowed at base *P. genychila* Schltr.
 16*. Synsepal deeply concave, lip lateral lobes not
 narrowed at base *P. nasiterna* Luer

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