

A NEW SPECIES OF *RODRIGUEZIA* (ORCHIDACEAE) FROM SOUTHERN COLOMBIA

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Abstract. A new species of *Rodriguezia* Ruiz & Pav. is described and illustrated based on material collected in Colombia. The novelty is distinguished by its subrectangular lip lamina, which is ornamented with an elevated pad extending to 3/4 of the lip. In contrast to *R. lehmannii* Rchb. f., in *R. suarezii* Kolan. & R. Medina Tr. leaf-bearing sheaths are observed at the base of its pseudobulb. An identification key for the Colombian *Rodriguezia* species is provided

Key words: biodiversity, Neotropics, Oncidiinae

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INTRODUCTION

The orchid genus *Rodriguezia* Ruiz & Pav. was described by Ruiz & Pavón in the late 17th century (Ruiz & Pavón 1794), but the generitype was selected almost 200 years later by Garay and Sweet (1972) as *R. lanceolata* Ruiz & Pav. Over 40 years after the establishment of *Rodriguezia*, Lindley (1837) described the genus *Burlingtonia* Lindl. which he found to be similar to the former taxon in synsepal and lip form as well as in pollinarium structure. As characters distinguishing his newly created genus, the author mentioned membranaceous and convolute flowers, unguiculate tepals, and the two-lobed lip longer than the other flower segments. Lindley recognized a total of 14 species within *Burlingtonia*. His concept was accepted by Hooker (1863) and Williams (1894) but rejected by Reichenbach (1852). Phylogenetic studies (Neubig *et al.* 2012) did not support the separateness of the genera in question. While Pfitzer (1887) classified *Rodriguezia* as a member of ‘Ionopsidae’ within Oncidiinae, most modern taxonomists have placed it within the broad concept of Oncidiinae (Dressler 1993; Chase *et al.* 2003, 2015); however, Szlachetko

(1995) included the genus in the subtribe Com-parettiinae of Oncidieae.

Currently the separateness of *Rodriguezia* is not questioned and its representatives may be easily recognized based on their morphology. The pseudobulbs of those plants are compressed; 1–4 apical, conduplicate, articulated leaves are produced. The resupinate flowers are arranged in one or more racemose, few- to many-flowered inflorescence(s). The floral bracts are shorter than the ovary and pedicel. The dorsal sepal and the petals are free, while the lateral sepals are fused, forming a tubular synsepal. The lip is usually clawed, with the lower part elongated into a spur inserted in the synsepal. The gynostemium is erect, slender, with the column part *ca* 3 times as long as the anther, with a projection near the stigma. The anther is apical, incumbent, ellipsoid-obovoid, slightly laterally compressed at the apex, and 2-chambered. Two pollinia are produced. The apical clinandrium is obscure. The capsule is ellipsoid (Chase 2009; Szlachetko & Mytnik-Ejsmont 2009).

Today the genus contains over 50 species distributed from Argentina to Mexico and the Caribbean (Bock 1988, 1995; Bogarin *et al.* 2008).

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During studies of Colombian oncioid orchids we came across a specimen of *Rodriguezia* that does not match the morphological characteristics of any known representative of the genus. Here we describe it as a new species. So far 14 *Rodriguezia* species have been reported in the national flora (Ortiz Valdivieso & Uribe Vélez 2007; Bernal *et al.* 2015).

TAXONOMIC TREATMENT

Rodriguezia suarezii Kolan. & R. Medina Tr.,
sp. nov. Figs 1 & 2

Species similar to *R. lehmannii* Rchb. f., distinguished by its subrectangular lip lamina and the presence of leaf-bearing sheaths at the pseudobulb base.

HOLOTYPE: COLOMBIA. Putumayo. La parte baja del cerro Portachuelo, hacia el rio Putumayo, cercano a San Francisco. 19 Dec. 2014. *Manuel A. Suárez s.n.* sub *R. Medina T. 995* (JAUM).

Epiphytic plants. Pseudobulbs *ca* 2 cm long, 1 cm wide, ovoid, compressed, apically unifoliate, subtended by several papyraceous sheaths and two leaf-bearing sheaths, leaf blades 4.5–7.0 cm long, 1.2–2.5 cm wide, elliptic, acute. Leaf 5.5 cm long, *ca* 1.7 cm wide, narrowly elliptic, acute. Inflorescences two, up to 6 cm long, lateral, arising through leaf axil, pendent to arching, racemose, few-flowered. Flowers whitish, with external surface of sepals flushed with purple-brown, margins of sepals greenish, lip with purple-brown spots. Floral bracts *ca* 5 mm long, triangular-ovate, acute. Ovary with pedicel up to 30 mm long. Dorsal sepal *ca* 16 mm long, 7–8 mm wide, concave, obovate, obtuse. Lateral sepals *ca* 17 mm long, united along inner margins for their entire length, forming a tubular synsepal. Petals *ca* 18–19 mm long, *ca* 9 mm wide, obovate-spathulate, obtuse. Lip *ca* 24 mm long, 8–9 mm wide, long-clawed; claw 8–9 mm long; lamina subrectangular-pandurate, minutely notched at apex, sometimes with small apicule; callus an elevated pad extending to 3/4 of lip lamina; spur *ca* 4 mm long. Gynostemium *ca* 13 mm long, with a pair of triangular, obtuse projections.

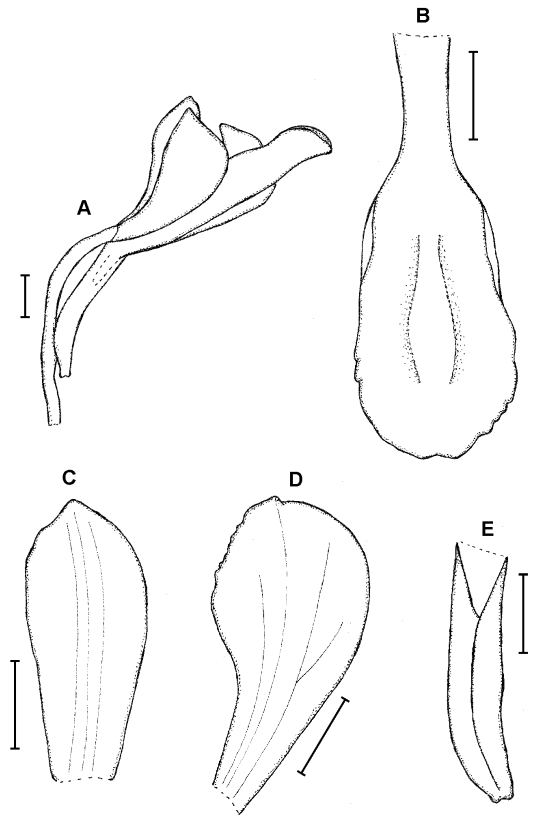


Fig. 1. *Rodriguezia suarezii* Kolan. & R. Medina Tr., *sp. nov.* A – flower, B – lip, C – dorsal sepal, D – petal, E – lateral sepals. Scale bars = 5 mm.

ETYMOLOGY. Dedicated to Manuel A. Suárez, the collector of the type specimen.

DISTRIBUTION AND ECOLOGY. So far known exclusively from the Colombian department of Putumayo. Flowering in December.

TAXONOMIC NOTES. The new species superficially resembles *R. lehmannii* Rchb. f. and *R. granadensis* Rchb. f. but may be easily distinguished from these species based on floral morphology, especially the short spur. In the latter species the lip is distinctly 3-lobed, with the middle lobe distinctly incised or bilobulate and the callus consisting of central thickenings. Its petals are obovate, distinctly broader than the dorsal sepal, and the upper margins are irregular. From *R. lehmannii* the new species is distinguished by the presence

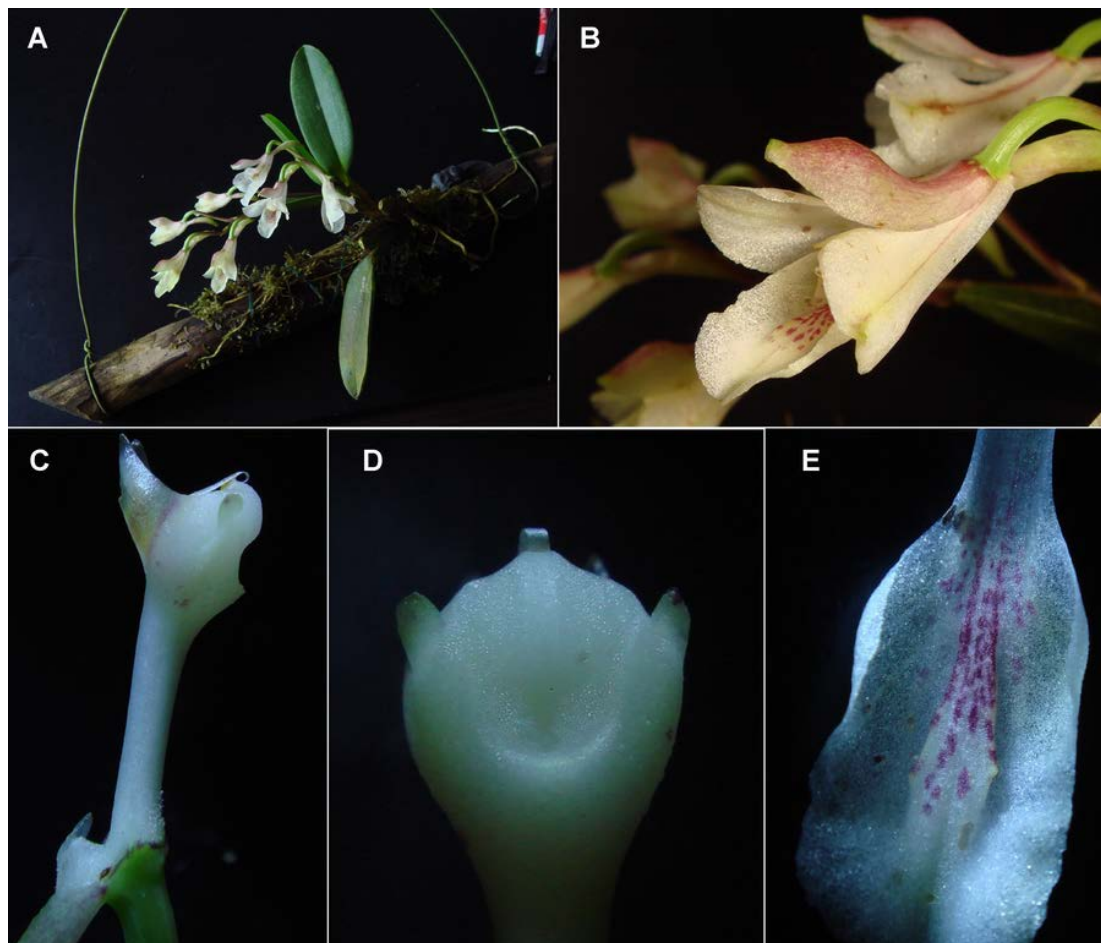


Fig. 2. *Rodriguezia suarezii* Kolan. & R. Medina Tr., *sp. nov.* A – habit, B – flower closeup, C & D – gynostemium, E – lip details. Photos by R. Medina T.

of leaf-bearing sheaths at the pseudobulb base, the subrectangular-pandurate lip lamina (vs lamina reniform-suborbicular) and short lip spur (4 mm vs 20 mm long). The flower morphology of the new species somewhat resembles *R. candida* (Lindl.) Christenson, but in this orchid the flowers are much larger (dorsal sepal 30–50 mm long), with the lip distinctly 3-lobed and ornamented with several yellow ridges. *Rodriguezia chasei* Dodson & D. E. Benn., known from Peru and Ecuador, has a subrectangular lip but the flowers of this species are crystalline white, and the lip is ornamented with a central oblong callus and 3 pairs of lateral ribs, which are not observed in *R. suarezii*.

KEY TO THE COLOMBIAN SPECIES
OF *RODRIGUEZIA*

- 1. Inflorescence many-flowered 2
- 1* Inflorescence few-flowered 4
- 2. Petals linear-lanceolate ... *R. antioquiiana* Kraenzl.
- 2* Petals ovate 3
- 3. Gynostemium basally puberulent
..... *R. lanceolata* Ruiz & Pav.
- 3* Gynostemium glabrous ... *R. bungerothii* Rchb. f.
- 4. Lip spur long, 1/3–1/2 of total lip length 5
- 4* Lip spur short, less than 1/5 of total lip length 7
- 5. Lip lamina obovate to suborbicular 6
- 5* Lip lamina subrectangular
..... *R. granadensis* (Lindl.) Rchb. f.

6. Synsepal longer than dorsal sepal
 ***R. lehmannii*** Rchb. f.
 6* Synsepal subequal in length to dorsal sepal ...
 ***R. cuentillensis*** Kraenzl.
 7. Lip unlobed or apically bilobed 8
 7* Lip 3-lobed 12
 8. Lip lamina subequally wide up to apex
 ***R. suarezii*** Kolan. & R. Medina Tr.
 8* Lip distinctly widened in apical part 9
 9. Gynostemium wings lanceolate
 ***R. obtusifolia*** (Lindl.) Rchb. f.
 9* Gynostemium wings ovate 10
 10. Leaves ovate ***R. rigida*** (Lindl.) Rchb. f.
 10* Leaves linear to linear-lanceolate 11
 11. Apical leaf folded ***R. leana*** Rchb.f.
 11* Apical leaf flat ***R. candida*** Batem. ex Lindl.
 12. Leaves ovate ... ***R. refracta*** (Linden) Rchb. f.
 12* Leaves lanceolate to oblong-lanceolate. ... 13
 13. Lip lateral lobes subquadrate
 ***R. batemanii*** Poepp. & Endl.
 13* Lip lateral lobes triangular to ovate 14
 14. Lip lamina with 8–10 elevated keels
 ***R. venusta*** (Lindl.) Rchb. f.
 14* Lip lamina with 2 elevated keels
 ***R. bracteata*** (Vell.) Hoehne

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