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TWO NEW SPECIES OF THE GENUS *GOVENIA* (ORCHIDACEAE, VANDOIDEAE) FROM COLOMBIA

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Abstract. Two new species of *Govenia* Lindl. from Colombia are described and illustrated: *G. plowmanii* and *G. renilabia*. Their taxonomic affinities are briefly discussed, and information on the ecology and distribution of the new entities is provided. Both new species are placed within a key for identification of Colombian *Govenia* species.

Key words: Colombia, *Govenia*, new species, Orchidaceae, taxonomy.

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Introduction

The genus *Govenia* was proposed by Lindley (1831) based on the morphology of *Maxillaria superba* La Llave & Lex. From *Maxillaria* he separated species characterized by plicate leaves gradually narrowed to a petiolate base, recurved in the natural position, an undivided lip much shorter than tepals, a short and massive, usually strongly arcuate gynostemium, an incumbent anther and amorphous caudiculae.

The taxonomic position of the genus is still discussed, as the results of molecular studies are inconsistent (Cameron *et al.* 1999; Freudenstein *et al.* 2004) and do not correspond to morphology-based classification systems (Dressler 1981, 1993; Szlachetko 1995). Three main groups of species are recognized within the genus: *Purpusii*, *Capitata* and *Superba* (García-Cruz & Sosa 2005). They are grouped based on the presence of a rhizome versus pseudobulbs, the number of leaves and the inflorescence arrangement. The generic separateness of *Govenia* is not in doubt, but the problem concerns delineation of infrageneric taxa, a problem first noted by Lindley (1845). Species delimitation is difficult mainly due to an insufficient number of collections of *Govenia* species represented in herbaria.

Nowadays the genus embraces *ca* 28 species distributed from Argentina to Mexico (Greenwood 1981; García-Cruz & Sosa 2005); 17 are found in Mesoamerica, seven in South America, one is restricted to the West Indies and another one to Florida (Dressler 1965; Greenwood 1981). The altitudinal range of *Govenia* is limited to premontane and montane areas, between 1200 and 2800 m a.s.l. Plants are often found in shady forests growing on organic soils (García-Cruz & Sosa 2005).

Ortiz and Uribe (2007) compiled a list of only seven *Govenia* species occurring in Colombia, but our recent revision of the orchid material stored in Colombian herbaria resulted in the discovery of two taxa which are described here as new.

Descriptions of the new species

Govenia plowmanii Szlach. & Kolan., ***sp. nov.***
Fig. 1

Plants similar to *Govenia fasciata* Lindl. but with lip concave in the center, constricted in the apical third, with the basal part obreniform and the apical part much smaller and transversely elliptic.

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Holotype: COLOMBIA. Huila. San Agustin, road to El Estrecho. Secondary forest along road, 16 Aug. 1974, *Plowman & E.W. Davis 4159* (COL).

Plants bifoliate. Leaves petiolate; petiole to 35 cm long, narrow; blade to 33 cm long and 8–9 cm wide, oblong-elliptic, acute. Inflorescence erect; peduncle 66 cm long; rachis 10 cm long, subdensely many-flowered. Flowers rather small. Floral bracts 10 mm long, lanceolate, acuminate. Pedicel and ovary 22 mm long. Dorsal sepal 13 mm long, 3 mm wide, oblong to linear-lanceolate, obtuse, 5-nerved. Petals 12 mm long, 6 mm wide, semi-elliptic, strongly oblique, acute to shortly acuminate, outer margins somewhat undulate, 5-nerved. Lateral sepals 9 mm long, 5 mm wide, ligulate with ± lanceolate, acute apex, strongly falcate, 5-nerved. Lip shortly clawed; lamina 5 mm long and wide, 5-nerved, lateral nerves branching, concave in center, constricted in apical third, with basal part obreniform and apical part much smaller, transversely elliptic, apex obtuse, with two prominent spots. Gynostemium 7 mm long.

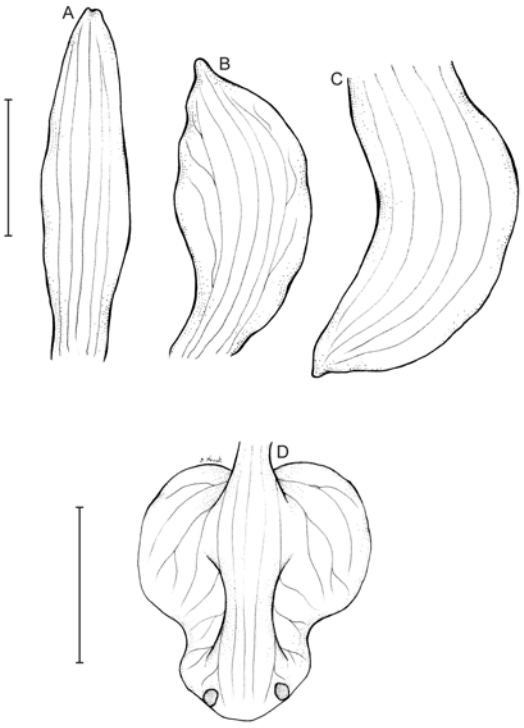

Fig. 1. *Govenia plowmanii* Szlach. & Kolan.– dissected perianth. A – dorsal sepal; B – petal; C – lateral sepal; D – lip. Scale bar A–C = 5 mm, D = 3 mm. Drawn by S. Nowak from holotype.

Etymology. Dedicated to Timothy Plowman (1944–1989), the co-collector of the original material.

Ecology. Secondary forest. Alt. 1417 m. Flowering in August and June.

Distribution. Known so far from the departments of Huila and Santander, Colombia (see Fig. 3).

Notes. This species is easily distinguishable from all other *Govenia* species by its peculiar lip form.

Govenia renilabia Szlach. & Kolan., ***sp. nov.*** Fig. 2

Plants similar to *Govenia tingens* Poepp. & Endl. but lip obreniform, entire, convex in center, and dorsal sepal long-clawed.

Holotype: COLOMBIA, Magdalena, Sierra Nevada de Santa Marta. Camino entre Quebrada Cebolleta y San Pedro. Extremo oriental de la Cuchilla Yerbabuena. Bosque nublado, 2400–2700 m, 4 Aug. 1972, *E. Forero & Kirkbride 663* (COL).

Plants bifoliate. Leaves petiolate; petiole to 25 cm long, narrow; blade to 40 cm long and 12 cm wide, oblong-elliptic, acute. Inflorescence erect; peduncle 55 cm long; rachis 12 cm long, subdensely several-flowered. Flowers rather small. Floral bracts 15 mm long, lanceolate, acuminate. Pedicel and ovary 17 mm long. Dorsal sepal 16 mm long, 6 mm wide, oblong-lanceolate above long, linear claw, subobtuse, 5-nerved. Petals 10 mm long, 5 mm wide, semi-elliptic, strongly oblique, acute, 4-nerved. Lateral sepals 10 mm long, 6 mm wide, semi-elliptic-obovate, strongly oblique, acute, 5-nerved. Lip shortly clawed; lamina 6 mm long and wide, obreniform, obtuse at apex, subcordate at base, 7-nerved, lateral nerves branching, convex. Gynostemium 7 mm long.

Etymology. The specific epithet is an allusion to the lip form (Latin *ren* – kidney, *labia* – lip).

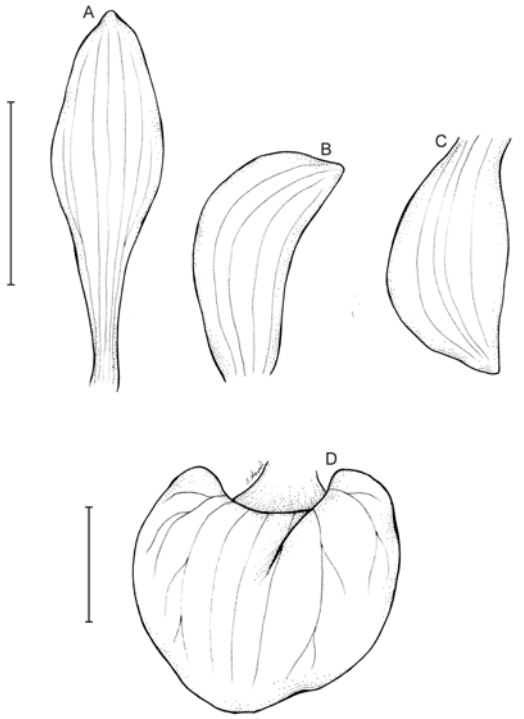

Fig. 2. *Govenia renilabia* Szlach. & Kolan. – dissected perianth. A – dorsal sepal; B – petal; C – lateral sepal; D – lip. Scale bar A–C = 8 mm, D = 3 mm. Drawn by S. Nowak from holotype.

Ecology. Cloud forest. Alt. 2400–2700 m. Flowering in August.

Distribution. Known from the Colombian department of Magdalena (Fig. 3).

Notes. This species differs from *G. tingens* Poepp. & Endl. by having a clawed dorsal sepal which is much longer than the lateral sepals and petals, and by its obreniform lip.

Key to the Colombian species of *Govenia*

1. Inflorescence shorter than leaves 2
1*. Inflorescence subequal or longer than leaves . . . 3
2. Lip up to 12 × 8 mm, ovate to ovate-elliptic when spread out, rounded to obtuse at apex . . . . . ***G. utriculata*** (Sw.) Lindl.
2*. Lip 10 × 10 mm, oblong-subquadrate, slightly contracted near middle, apex subtruncate, minutely apiculate . . . ***G. liliacea*** (La Llave & Lex.) Lindl.
3. Rachis rather short, up to 10–15 cm long 4
3*. Rachis up to 35 cm long and more 7
4. Floral bracts almost as long as ovaries 5
4*. Floral bracts about twice shorter than ovaries . . . 6
5. Lip oblong . . . . . ***G. fasciata*** Lindl.
5*. Lip obreniform . . . ***G. renilabia*** Szlach. & Kolan.
6. Lip triangular-ovate or ovate-oblong when expanded . . . . . ***G. tingens*** Poepp. & Endl.
6*. Lip constricted in apical third, basal part obreniform, apical part transversely elliptic . . . . . ***G. plowmanii*** Szlach. & Kolan.
7. Rostellum small, oblate . . . . . ***G. latifolia*** (Kunth) Garay & G.A. Romero
7*. Rostellum medium-sized, not flattened 8
8. Leaves broadly elliptic to obovate-elliptic, lip broadly ovate to ovate-elliptic . . . . . ***G. superba*** (La Llave & Lex.) Lindl.
8*. Leaves obovate-oblong, lip oblong . . . . . ***G. platyglossa*** Schltr.

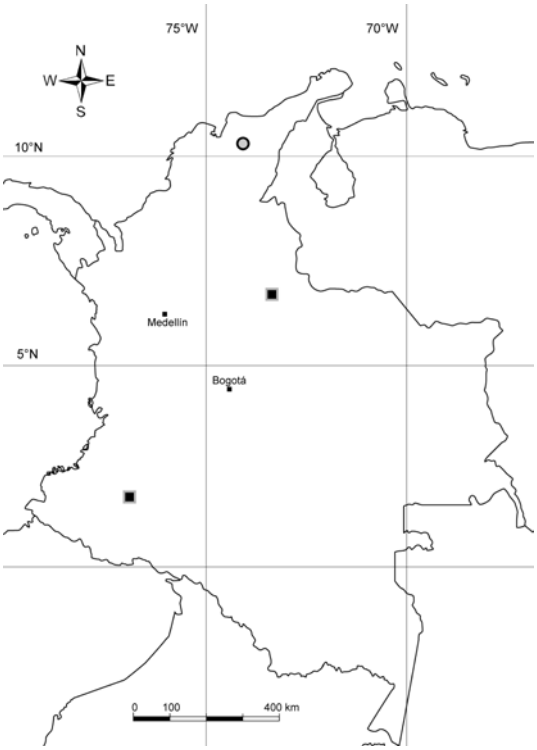

Fig. 3. Distribution of *Govenia plowmanii* Szlach. & Kolan. (square) and *G. renilabia* Szlach. & Kolan. (circle) in Colombia.

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