

March 9, 2018

A New Species of *Vargasiella* C. Schweinf. from Colombia.

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Abstract

A new species of *Vargasiella* C. Schweinf. (Orchidaceae) is described for Colombia.

The genus *Vargasiella* C. Schweinf. is a genus of Orchidaceae endemic to South America that at present contains two species:

Vargasiella peruviana C. Schweinf., Bot. Mus. Leafl., Harvard Univ. 15: 150, tab. 47. 1952. Type: Peru, Convención, hills of Pintobaba, in humus forest, perianth white with pinkish lip. *Vargas 3288* (Holotype: AMES - type illustration). Cuzco: Paucartambo, Pillahuata, floral segments white lined with pink. *Vargas 3010* (Paratype: AMES). Distribution: Peru, Bolivia. Elev. 2400–3400 m.

Vargasiella venezuelana C. Schweinf., Bot. Mus. Leafl., Harvard Univ. 18: 219, tab. 44. 1958. Type: Venezuela, Bolívar. Chimantá Massif, northwestern part of summit of Abácapa-tepuí, in Bonnetia forest. *Steysmark 74914* (Holotype: AMES - type illustration, Isotype: F). Distribution: Venezuela. Elev. 2125–2300 m.

Vargasiella species are found growing in wet and cool conditions, in submontane and montane forests, from 2100 to 3400 m. *Vargasiella venezuelana* has been found in the Bonnetia forest (*Steysmark 74914*, F), while *V. peruviana* has been reported from stunted cloud forest (*Foster & Smith 9094*, MO; *Gentry & Smith 35984*, MO).

A species of *Vargasiella* was found in Colombia on the road from Pasto to Mocoa, in the department of Putumayo. The species does not correspond to *V. venezuelana* or *V. peruviana*. The population is here described as a new species.

***Vargasiella colombiana* Uribe-Velez and Sauleda, sp. nov.**

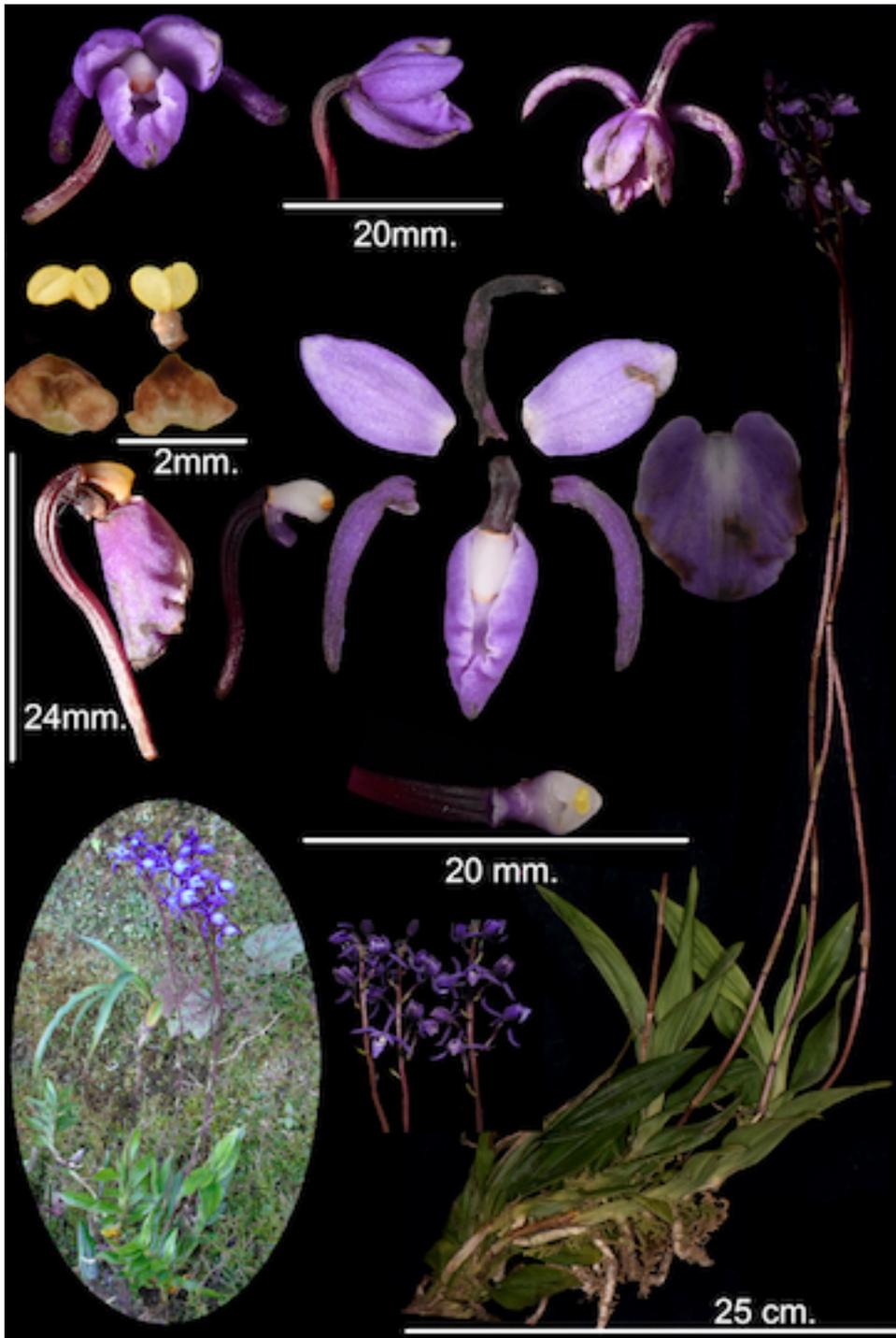
Holotype: Colombia, departamento de Putumayo, carretera Pasto a Mocoa, 2800 m., Julio Cesar Ordoñez, s. n., February, 2017, (HPUJ #29.131).

Description

Plants terrestrial, erect, up to 85 cm tall; roots remote, solitary, fibrous, stout, finely pubescent; stem enclosed by appressed, imbricating, leaf-bearing tubular sheaths; leaves elliptic-oblong, acute, to 8 cm long, 1.6 cm wide, membranaceous, plicate; inflorescence erect from axil of one of the middle leaves; peduncle purple, glabrous, to 15 cm tall, with to 5 remotely produced, tubular, acute, sheaths; rachis to 5 cm tall, few flowered to 8 flowers; floral bracts small to 8 mm long, 2 mm wide; ovary pedicellate up to 2.4 cm; flowers bluish-purple, fleshy, to 1.8 cm; sepals projecting backwards, petals projecting forward; sepals similar, longitudinally concave, lanceolate, acute, to 1.1 cm long, 3 mm wide; petals oval to oblong, obtuse, to 9 mm long, 5 mm wide; labellum simple, clawed, round, involute, margin entire, with two fleshy white ridges terminating in three faint ridges towards the front edge of labellum, base slightly cordate, to 1.1 cm wide; column white, short, stout, triangular to 4 mm wide, 4 mm long.

Diagnosis

Vargasiella colombiana is more closely related to *V. venezuelana* than to *V. peruviana*. It differs from *V. venezuelana* in the shape and size of the column, the size of the plant and the shape of the labellum. *Vargasiella colombiana* has a short column (4 mm), which is apically triangular, *V. venezuelana* has an elongated (7 mm) cylindrical column, which is apically rounded. The plants, including the inflorescence, of *V. colombiana* are erect up to 85 cm tall, *V. venezuelana* is erect up to 185 cm tall including the inflorescence. Both species have clawed labella, however the claw of *V. colombiana* is shorter (3 mm) than *V. venezuelana* (8 mm). In addition, the labellum of *V. colombiana* has two shallow white ridges under the column terminating in three faint ridges towards the front edge of the labellum. *Vargasiella venezuelana* has a single white ridge on the labellum diverging into two ridges. The labellum of *V. colombiana* is round where *V. venezuelana* is triangular ovate.



Vargasiella colombiana Uribe-Velez and Sauleda.

PLATE XLIV

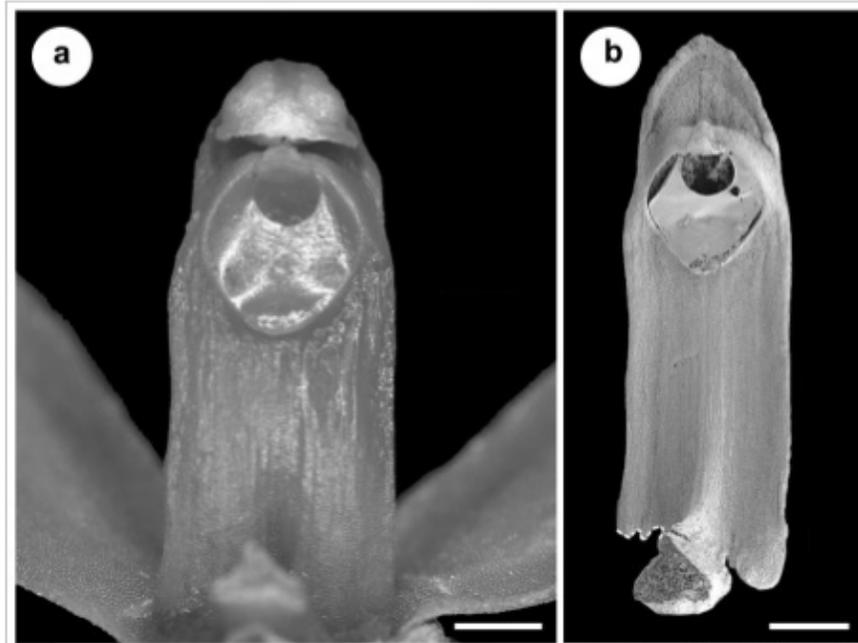


EXPLANATION OF THE ILLUSTRATION

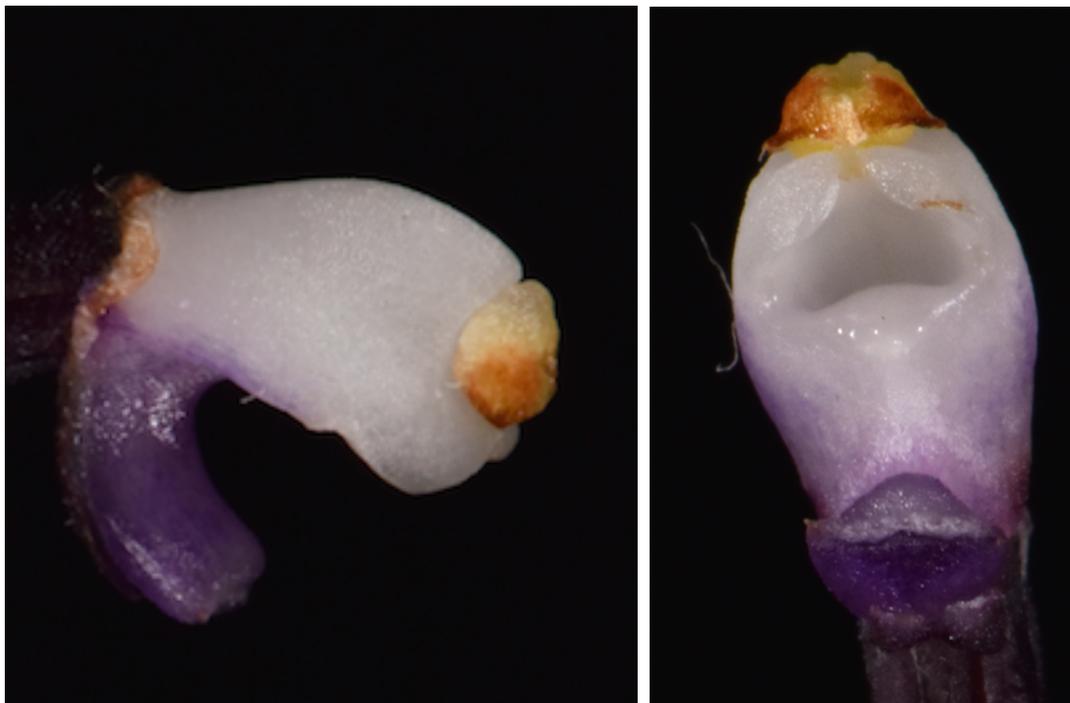
PLATE XLIV. VARGASIELLA VENEZUELANA C. Schweinf.
1, plant, one fourth natural size. 2, flower from side,
natural position, one and one third times natural
size. 3, lip and column from side, natural position,
twice natural size. 4, petal, twice natural size. 5,
lip, natural position, twice natural size.

Drawn by ELMER W. SMITH

Type illustration of *Vargasiella venezuelana* C. Schweinf. from Bot. Mus. Leafl., Harvard Univ. 18: 219, tab. 44. 1958.



Column structure of *Vargasiella venezuelana* C. Schweinf. from Szlachetko et al., 2014.



Column structure of *Vargasiella colombiana* Uribe-Velez and Sauleda.



Vargasiella colombiana Uribe-Velez and Sauleda labellum.



Labellum with two white keels under column.



Vargasiella colombiana Uribe-Velez and Sauleda flower lateral and frontal view.



Holotype of *Vargasiella colombiana* Uribe-Velez and Sauleda. Herbarium Pontificia Universidad Javeriana (HPUJ # 29.132).



Vargasiella colombiana Uribe-Velez and Sauleda in situ. Photographs by Julio Cesar Ordoñez.



Vargasiella colombiana Uribe-Velez and Sauleda plant in situ. Photograph by Julio Cesar Ordoñez.



Vargasiella colombiana Uribe-Velez and Sauleda flowers. Photograph by Julio Cesar Ordoñez.

Literature Cited

Szlachetko, D. L., Górniak, M., Kolanowska, M., Mytnik-Ejsmont, J., Kowalkowska, A. K., Rutkowski, P., and Koliński, T. (2014). Taxonomic Position and Phylogeny of the Genus *Vargasiella* (Orchidaceae, Vandoideae) Based on Molecular and Morphological Evidence. *PLoS ONE*, 9(6), e98472. <http://doi.org/10.1371/journal.pone.0098472>.