

The first record of *Platystele ximena* (Pleurothallidinae, Orchidaceae) for Colombia

Marta Kolanowska

Department of Plant Taxonomy and Nature Conservation, University of Gdańsk, Al. Legionów 9, 80-441 Gdańsk, Poland, e-mail: martakolanowska@wp.pl

Abstract: Previously known only from the type locality in Ecuador, *Platystele ximena* is reported for the first time from Colombia. This species has been described and illustrated based on the material recently collected in the department of Valle del Cauca. Information about its habitat and ecology is provided.

Key words: Colombia, new record, Orchidaceae, *Platystele*

1. Introduction

The genus *Platystele* Schltr. embraces over 70 species distributed from Brazil and Bolivia to Cuba and southern Mexico. Their occurrence has been reported from wet, cloud forest and subparamo with the altitudinal range from near the sea level up to 3200 m (Luer 1990; Pridgeon *et al.* 2005). The range of many *Platystele* species is very limited. Some of them, e.g. *P. beatricis*, *P. ximena* are known only from the type locality (Luer 1991; Ortiz 2002).

The Department of Valle del Cauca, located in the south-western Colombia, is a region of great habitat variation, including lowland, premontane and montane forests, mangrove and paramo (Cuatrecasas 1958; Giraldo Moreno & Pabón 2005) and, consequently, high species diversity. Over 30 orchid species are endemic to the region (Kolanowska 2011). The field work conducted in this department in 2009, 2010 and 2011 provided information about several new species and new records of orchids (Pérez *et al.* 2010a, 2010b, 2011; Kolanowska *et al.* 2011). The most recent discovery is the first Colombian locality of *Platystele ximena*.

2. Materials and methods

Representative specimens of every population found during the field work were collected and preserved by

drying whole plants or by preserving the material in Kew Mixture (63% industrial methylated spirit, 37% water, 5% formaldehyde solution and 5% glycerol).

The comparative research was conducted in the following herbaria AMO, COL, CUVC, JAUM, K and VALLE. Morphological studies were carried out under a stereomicroscope.

The description of the species presented in this paper was based on the Colombian material.

3. Description and taxonomic notes

Platystele ximena Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot. Gard. 39: 149, f. 76. 1991. Type: Ecuador. Prov. Bolívar. Epiphytic in wet forest west of La Palma west of Guaranda. Alt. 1250 m. 10 Mar 1991. C. Luer, J. Luer, A. Hirtz, X. Hirtz, J. del Hierro, M. Navarro, F. Navarro & M. Evans 14976 (Holotype: MO!, Isotypes: K, QCNE).

Morphological description: Epiphytic, caespitose plants, 2.5-3.5 cm tall. Roots slender. Ramicauls slender, 4-7 mm long, enveloped by 2-3 tubular sheaths. Leaf single, erect; blade elliptic, obtuse to subacute, 12-20 mm long and 5-7 mm wide, cuneates at the base into a petiole 0.6-1 mm long. Inflorescence lateral, up to 5 cm long, flexuous, loosely several-flowered; peduncle 2.5-3.5 cm long. Floral bracts about 1 mm long, shorter than pedicel and ovary. Flowers resupinate;

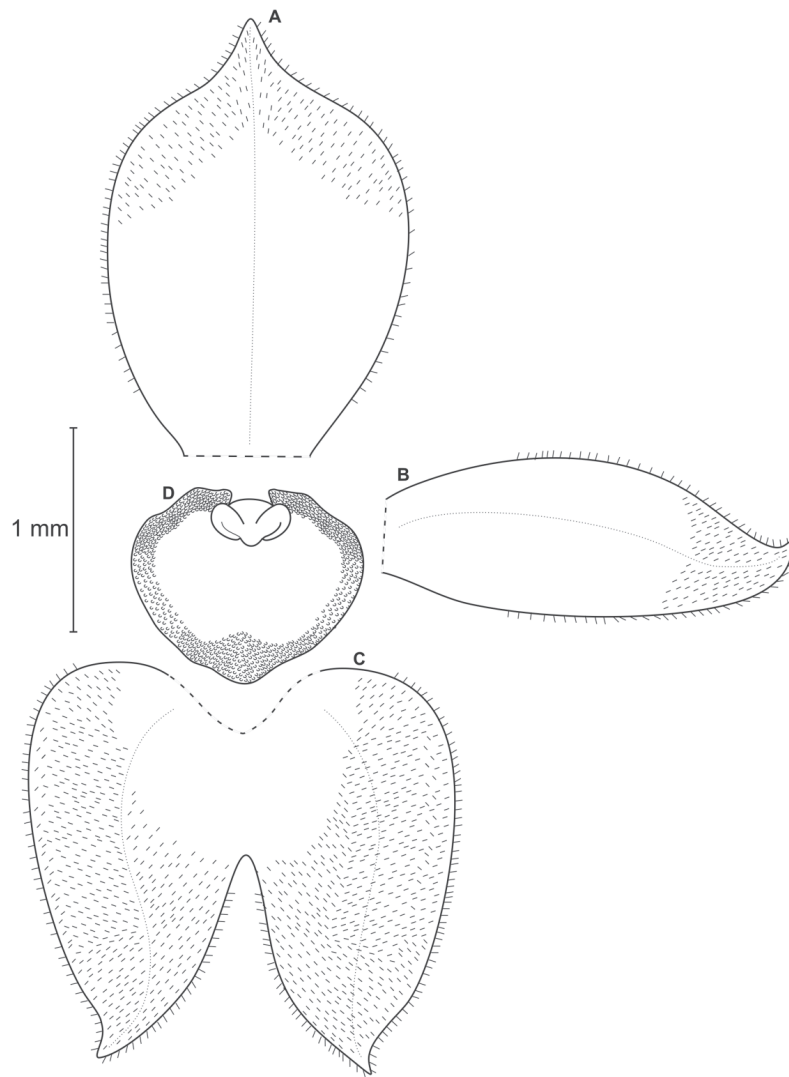


Fig. 1. *Platystele ximena* – dissected perianth (drawn from *Kolanowska 363*, UGDA)
Explanations: A – dorsal sepal, B – petal, C – lateral sepals, D – lip



Fig. 2. *Platystele ximena* – specimen found during the field work (photograph by M. Kolanowska, Bajo Calima, Colombia, October 2011)

tepals yellow suffused with violet in the lower part, lip brownish-red. Tepals with ciliate margins and pubescent apical part, 1-veined. Dorsal sepal about 2.1 mm long and 1.5 mm wide, elliptic, acuminate and obtuse. Lateral sepals about 2 mm long and 1 mm wide, ovate, connate to each other for the basal 0.5 mm. Petals about 2 mm long and 0.8 mm wide, narrowly elliptic. Lip about 0.9 mm long and 1 mm wide, concave at the base, basal lobes surround the column, lamina cellular-glandular, suborbicular, apex obtuse, callus basal, bilobulate, glandular. Column about 0.8 mm long, cucullate. (Figs. 1-2).

Representative specimen: Colombia. Dept. Valle del Cauca. El Queremal. N3 31.890 W76 45.060. Alt. 1227 m. 14 Oct 2011. *Kolanowska 363* (UGDA!). **Habitat and ecology:** The population of about 50 individuals was found at about 1200 m altitude. The plants were growing as epiphytes on branches of recently fallen tree.

Flowering season in Colombia: October. **General distribution:** The locality from El Queremal is the second known locality of *Platystele ximena* and the first record of this species from Colombia. This species was so far known only from the type locality in the Ecuadorian province of Bolívar (Fig. 3).

Taxonomic notes: *Platystele ximena* Luer & Hirtz is similar to *P. pubescens* Luer, from which it differs by very short pubescence of the tepals and presence of the bilobulate callus (vs. tepals long-pubescent, lip ecallose in *P. pubescens*).

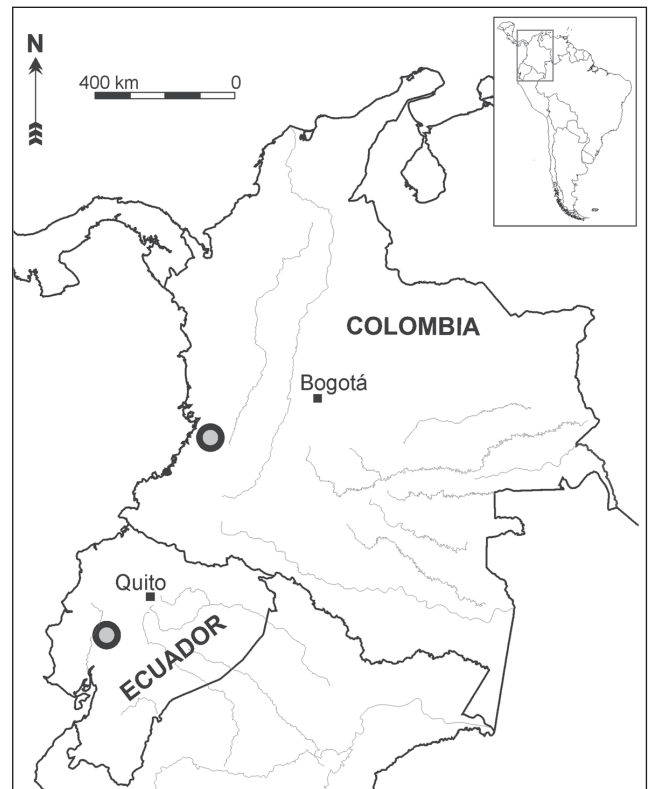


Fig. 3. General distribution of *Platystele ximena*

Acknowledgments. The curators and staff of the cited herbaria are thanked for their kind hospitality and assistance during visits. This work was funded by the Polish Ministry of Science and Higher Education grant (project no N304043939).

References

- CUATRECASAS J. 1958. Aspectos de la Vegetación Natural de Colombia. *Revista Acad. Colomb. Ci. Exact.* 10: 221-264.
- GIRALDO MORENO J. E. & PABÓN E. I. 2005. Maíz, alimento sagrado. Los custodios de semillas del Valle del Cauca. *Biodiversidad* 45: 23-26.
- KOLANOWSKA M. 2011. Orchids of Valle del Cauca – a preliminary study. Poster I-108 presented as part of the conference BioSystematics, Berlin, 21-27 February 2011. Abstract published by the Botanic Garden and Botanical Museum Universität Berlin, p. 202.
- KOLANOWSKA M., PÉREZ ESCOBAR O. A. & PARRA SÁNCHEZ E. 2011. *Anathallis muricaudata* (Luer) Pridgeon & M.W. Chase, una rara especie de la Reserva Bosque de Yotoco. *Orquídeologia* 28(1): 31-35.
- LUER C. A. 1990. Icones Pleurothallidinarum VII. Systematics of *Platystele* (Orchidaceae). *Monogr. Syst. Bot. Missouri Bot. Gard.* 38: 1-4.
- LUER C. A. 1991. Icones Pleurothallidinarum VIII. Systematics of *Lepanthopsis*, *Octomeria* subgenus *Pleurothallopsis*, *Restrepiella*, *Restrepiopsis*, *Salpistele* and *Teagueia*. Addenda to *Platystele*, *Porroglossum* and *Scaphosepalum*. *Monogr. Syst. Bot. Missouri Bot. Gard.* 39: 149-151.
- ORTIZ V. P. 2002. New orchid species from Colombia. *Orquídeologia* 22(2): 132-134.
- PÉREZ ESOBAR O. A., PARRA SÁNCHEZ E. & KOLANOWSKA M. 2010a. *Lepanthes caetanoae* (Pleurothallidinae: Orchidaceae) Una nueva especie de la región subandina de Colombia. *Orquídeologia* 27(1): 46-54.
- PÉREZ ESCOBAR O. A., PARRA SÁNCHEZ E. & KOLANOWSKA M. 2010b. *Lepanthes ortiziana* (Pleurothallidinae: Orchidaceae) una nueva especie de los bosques de niebla de la región subandina de Colombia. *Orquídeologia* 27(2): 221-232.

PÉREZ ESCOBAR O. A., PARRA SÁNCHEZ E., KOLANOWSKA M. & Ortiz V. P. 2011. Primer reporte de *Telipogon lankesteri* Ames (Orchidaceae) para Colombia. *Orquídeología* 28(1): 36-40.

PRIDGEON A. M., CRIBB P. J., CHASE M. W. & RASMUSSEN F. N. 2005. *Genera Orchidacearum*, vol. 4, Epidendroideae (Part 1). 696 pp. Oxford University Press, Oxford.