

## *Pterichis moralesii* (Cranichidinae, Orchidaceae), a new species from Colombia

Marta Kolanowska\* & Dariusz L. Szlachetko

Department of Plant Taxonomy and Nature Conservation, University of Gdańsk, ul. Wita Stwosza 59, PL-80-308 Gdańsk, Poland (\*corresponding author's e-mail: martakolanowska@wp.pl)

Received 19 Sep. 2012, final version received 19 Nov. 2012, accepted 29 Nov. 2012

Kolanowska, M. & Szlachetko, D. L. 2013: *Pterichis moralesii* (Cranichidinae, Orchidaceae), a new species from Colombia. — *Ann. Bot. Fennici* 50: 111–114.

*Pterichis moralesii*, a new orchid species from Colombia, is described and illustrated. The differences between *P. moralesii* and similar species are briefly discussed and a key to the Colombian species of *Pterichis*, as well as information on the ecology and distribution of *P. moralesii* are provided.

*Pterichis* was described in 1840 by Lindley with *P. galeata* as a generitype; for many years, however, some species of this genus were classified under *Acraea*, *Goodyera* and *Prescottia*. The first revision of *Pterichis* was made by Schlechter (1911), who followed Bentham and Hooker (1883) concerning a wide definition of the taxon. Later, the same author described seven new species of *Pterichis* (Schlechter 1911b, 1912, 1913, 1921a, 1921b, 1922).

Currently *Pterichis* consists of 15–20 terrestrial species with basal, rosulate leaves. The flowers are non-resupinate, arranged in a loose, few-flowered inflorescence. The lip is sessile, concave, and variously ornate with papillae along the margins (Schweinfurth 1958, Nir 2000, Cribb 2003). The gynostemium is short, erect, with a rudimentary column part (between the ovary and the base of the anther). The anther is erect, motile, and 2-chambered. The pollinia are oblong-ovoid, usually relatively compact, and soft. The stigma is ventral, confluent, deeply concave, and pocket-like. The viscidium is single, detachable, cellular, thick, small, rounded or hood-like, asymmetric, usually producing a

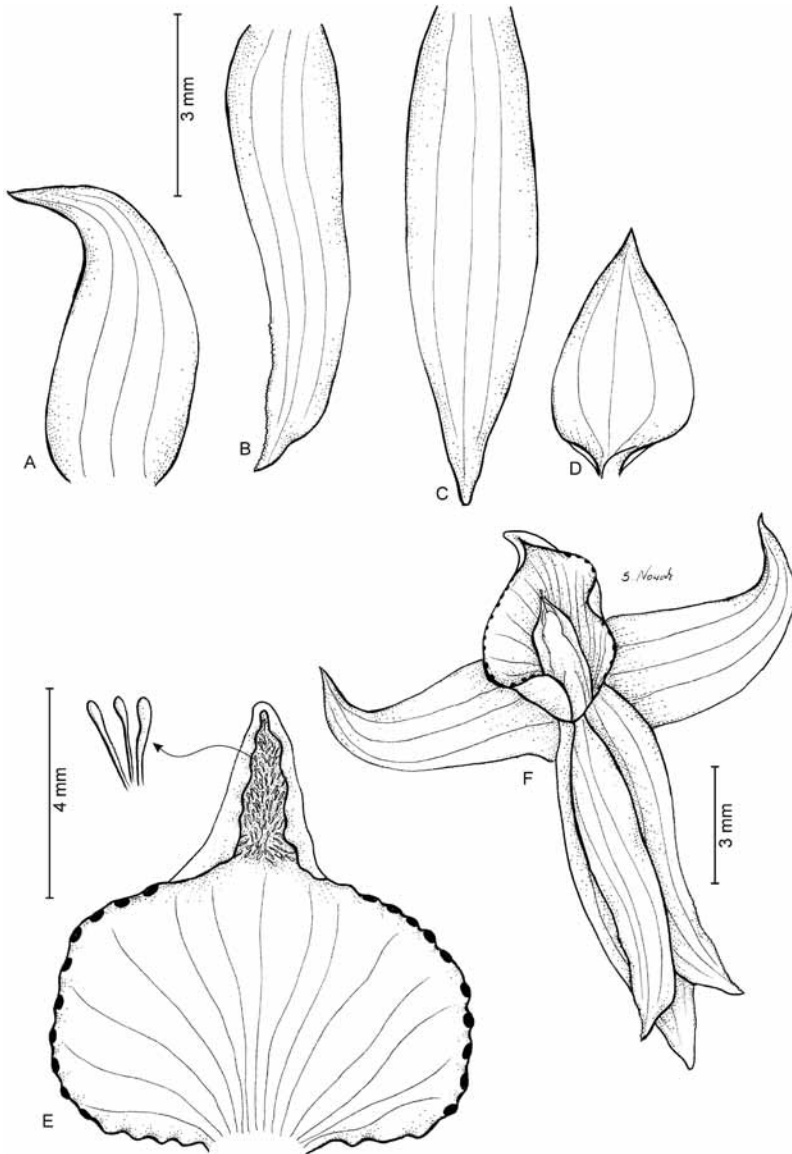
hamulus (Szlachetko & Rutkowski 2000: 295–296, figs. 362–364).

The geographical range of the genus extends from Costa Rica, Panama and Jamaica to Argentina, with the greatest species diversity in the tropical Andes region. An occurrence of *Pterichis* was reported from 2600 m a.s.l., but most of the species grow above 3000 m a.s.l. in páramo and subpáramo (Cribb 2003, Dueñas Gómez & Fernández-Alonso 2009).

The first record of *Pterichis* from Colombia was by Schlechter (1920), and a total of nine species were found in this country so far (Morales 1986, Ortiz-Valdivieso & Uribe-Vélez 2007). Taxonomic novelties within this genus are rare and the latest one was published in 1986 (Morales 1986). During examination of herbarium material, a distinctive species of *Pterichis* was discovered and it is described here as new.

***Pterichis moralesii* Kolan. & Szlach., sp. nova** (Figs. 1 and 2)

TYPE: Colombia. Dept. Valle del Cauca. Mun. Pradera.



**Fig. 1.** *Pterichis moralesii* (drawn by S. Nowak from the holotype). — **A:** Lateral sepal. — **B:** Petal. — **C:** Dorsal sepal. — **D:** Floral bract. — **E:** Lip. — **F:** Expanded flower, seen from above.

Cuenca alta del Río Bolo, 3300–3600 m, 19–24 November 1998 *William G. Vargas 5056* (holotype HUA).

**ETYMOLOGY:** Named in honour of Gustavo Morales L., the author of the latest complete revision of the Colombian species of *Pterichis*.

Species distinguished by the congested, densely several-flowered inflorescence, glabrous tepals, apically serrate petals and lip middle lobe of the lip adorned with a tuft of long, clavate, glandular hairs.

Plant about 12 cm tall. Roots fasciculated, tuberous, (1.5)3.0–5.0 mm in diameter. Leaves 3,

basal, petiolate; blade probably linear-lanceolate (upper part of leaves damaged in holotype); petiole 1.5–2.0 cm long. Inflorescence terminal; scape about 10 cm long, glandular-pilose, with several tubular, lanceolate, acute sheaths; raceme 1.2–1.5 cm long, densely several-flowered (9-flowered in holotype). Floral bracts 7–10 mm long, ovate, acute, margins entire. Ovary ciliate, 4–5 mm long. Flowers dark yellow with purple spots. Tepals glabrous, 3-veined. Dorsal sepal 6–9 mm long and 1.2–2.2 mm wide, broadly lanceolate, obtuse to subacute. Lateral sepals 5.2–5.5 mm

long and 2.0–2.5 mm wide, ovate to ovate-lanceolate, acute. Petals 6–8 mm long and 1.00–1.75 mm wide, oblong-lanceolate, margins microscopically crenulate in apical external part, apex acute. Lip 5.5–6.2 mm long and about as wide, microscopically glandular, concave, cordate, papillose along slightly incurved margins, narrowed to a triangular apex, apex densely covered with long clavate, glandular hairs. Gynostemium about 4 mm long.

**DISTRIBUTION AND HABITAT:** *Pterichis moralesii* is known so far from one population found in the upper basin of the Bolo River, Department of Valle del Cauca. It grows terrestrially in páramo at about 3300–3600 m a.s.l.

*Pterichis moralesii* is easily distinguished by the dense, compact inflorescence, which is not observed in any other species of *Pterichis*. Based on the floral characters it seems to be related with *P. parvifolia* and *P. habenarioides*. From those species *P. moralesii* differs by the smaller habit, glabrous tepals and apically crenulate petals (Fig. 3).

### Key to the Colombian species of the genus *Pterichis*

1. Inflorescence compact, dense ..... *P. moralesii*
1. Inflorescence lax or sublax ..... 2
2. Petals glabrous ..... 3
2. Petals externally glandular-pilose ..... 5



Fig. 2. Holotype of *Pterichis moralesii*.

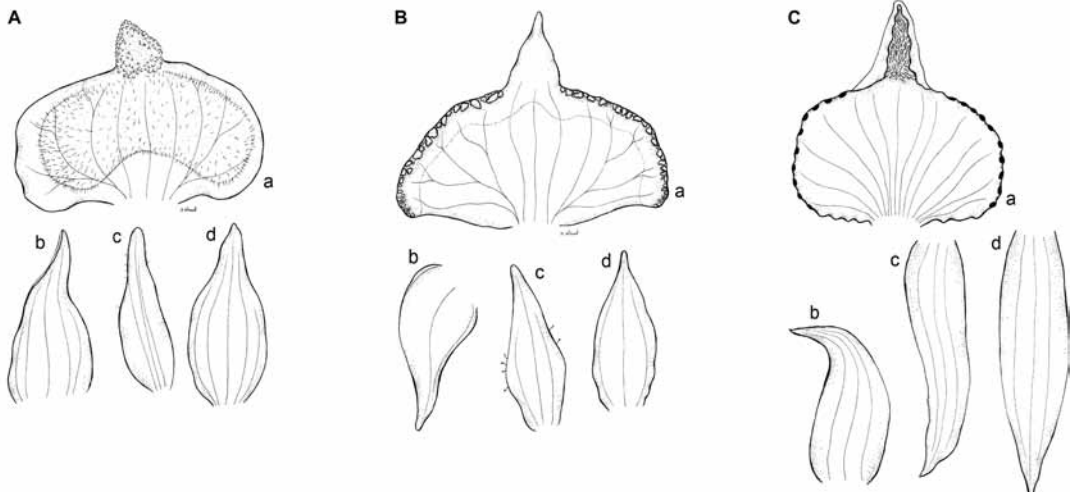


Fig. 3. Comparison of dissected flowers of (A) *Pterichis habenarioides*, (B) *P. parvifolia* and (C) *P. moralesii*. — a: lip; — b: lateral sepal; — c: petal; — d: dorsal sepal. Drawn by S. Nowak.

3. Petals spatulate, sepals glabrous ..... *P. fernandezii*  
 3. Petals not spatulate, sepals externally glandular-pilose ..... 4  
 4. Petals ligulate ..... *P. silvestris*  
 4. Petals ovate-oblong ..... *P. galeata*  
 5. Floral bracts elliptic ..... *P. colombiana*  
 5. Floral bracts ovate-lanceolate ..... 6  
 6. Sepals glabrous ..... *P. parvifolia*  
 6. Sepals glandular-pubescent ..... 7  
 7. Petals 3-veined ..... 8  
 7. Petals 2-veined ..... 9  
 8. Petals 3–4 times longer than wide ..... *P. habenarioides*  
 8. Petals 5–6 times longer than wide ..... *P. multiflora*  
 9. Leaf ovate-oblong, up to 5 × 2 cm ..... *P. triloba*  
 9. Leaf oblong-lanceolate, up to 7 × 1.2 cm .. *P. pauciflora*

## Acknowledgements

The curator and staff of HUA are thanked for their kind hospitality and assistance during the visit. We would like to express our gratitude to Sławomir Nowak for preparing the illustrations.

## References

- Bentham, G. & Hooker, J. D. 1883: *Genera Plantarum: ad exemplaria imprimis in Herbariis Kewensibus Servata Definita*, vol. 3, pars 2. — L. Reeve, London.
- Cribb, P. 2003: *Pterichis*. — In: Pridgeon, A. M., Cribb, P. J., Chase, M. W. & Rasmussen, F. N. (eds.), *Genera orchidacearum*, vol. 3: Orchidoideae part 2: 53–56. Oxford University Press, Oxford.
- Dueñas Gómez, H. C. & Fernández-Alonso, J. L. 2009: Sinopsis de la subfamilia Spiranthoideae (Orchidaceae) en Colombia, Parte II. — *Revista de la Academia Colombiana de Ciencias Exactas Físicas y Naturales*: 33(127): 127: 175–176.
- Morales, G. 1986: *El genero Pterichis en Colombia*. — *Orquideologia* 16(3): 53–79.
- Nir, M. 2000: *Orchidaceae Antillanae*. — DAG Media Publishing, New York.
- Ortiz-Valdivieso, P. & Uribe-Vélez, C. 2007: *Galería de Orquídeas de Colombia* (CD edition). — Asociación Bogotana de Orquideología, Bogotá.
- Schlechter, R. 1911a: Die Polychondreae (*Neottiinae* Pfitz.) und ihre systematische Einteilung. — *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 45: 375–410.
- Schlechter, R. 1911b: Orchidaceae novae et criticae. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen. Beihefte* 9: 428–439.
- Schlechter, R. 1912: Orchidaceae novae et criticae. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen. Beihefte* 10: 445–461.
- Schlechter, R. 1913: Orchidaceae novae et criticae. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen. Beihefte* 12: 481–495.
- Schlechter, R. 1921a: Die Orchideenfloren der südamerikanischen Kordillerenstaaten. III. Ecuador. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen. Beihefte* 8: 1–172.
- Schlechter, R. 1921b: Die Orchideenfloren der südamerikanischen Kordillerenstaaten. IV. Peru. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen. Beihefte* 9: 1–182.
- Schlechter, R. 1922: Die Orchideenfloren der südamerikanischen Kordillerenstaaten. V. Bolivia. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen. Beihefte* 10: 1–80.
- Schweinfurth, C. 1958: Orchids of Peru. — *Fieldiana Botany* 30(1): 1–260.
- Szlachetko, D. L. & Rutkowski, P. 2000: Gynostemia Orchidaleum 1. — *Acta Botanica Fennica* 169: 1–350.