Recognition of *Ponthieva micromystax* and a new *Ocampoa* species (Orchidaceae)

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A taxonomic validation of *Ponthieva micromystax* Kraenzl. *ex* Szlach. & Kolan. is presented together with the description of the second species of *Ocampoa*, *O. kraenzliana* Szlach. & Kolan. Specimens of both novelties were found in the Colombian collection of Lehmann and both were labeled by Friedrich Kränzlin as *Ponthieva micromystax*.

Botanical exploration of the Neotropics in the end of the 19th century was intensive and yielded impressive collections made by professional collectors. An enormous number of new plant species were described. The gatherings from South America and Mesoamerica were usually deposited in the European gardens and scientific institutions, mainly in the *Museum National d'Histoire Naturelle* in Paris (PC) and the Royal Botanic Gardens in Kew (K). It was time of great progress in the knowledge on orchids made primarily by John Lindley whose *The Genera and Species of Orchidaceous Plants* (Lindley 1835) became a background for further studies on this plant group.

A substantial Neotropical orchid collection was created by Friedrich Carl Lehmann (1850– 1903) who as the employee of the H. Low & Co. company explored the northern Andes, "hunting" for plants and sending them mainly to Kew. Based on his gatherings and field notes numerous new species were proposed by H. G. L. Reichenbach, who mentioned the collector's contribution to the discoveries in his *Otia Botanica Hamburgensia* (Reichenbach 1878). After Reichenbach's death, F. C. Lehmann began to cooperate with Henry Ridley, Robert A. Rolfe and Friedrich Kränzlin (Cribb 2010). While the first two botanists described new orchids based on Lehmann's collections just occasionally, the collaboration with Kränzlin was more productive. His book Orchidaceae Lehmannianae in Guatemala, Costarica, Columbia et Ecuador collectae, quas determinavit et descripsit (Kränzlin 1899) included descriptions of over 100 species and three new genera that were discovered in the material collected by Lehmann. With few exceptions, the new findings were co-authored by the collector.

Orchid specimens provided by Lehmann to Reichenbach are currently deposited in the Natural History Museum in Vienna (W), while the later collections were purchased by the Royal Botanic Gardens in Kew.

During the studies on Colombian orchids conducted in Reichenbach's herbarium we came across two sheets containing plants collected by Lehmann and labelled by Kränzlin as *Ponthieva micromystax*. Examination of the specimens showed that the plants belonged to two dif-



Fig. 1. Ponthieva micromystax, dissected perianth (from the holotype). - A: Lateral sepal. - B: Petal. - C: Dorsal sepal. - D: Lip. - E: Lip (side view). Scale bars = 3 mm.

ferent genera. The unnumbered plant from the Colombian department of Valle del Cauca is a distinctive representative of Ponthieva, that was never effectively published (Art. 29.1 and 30.1 ICBN, McNeill et al. 2006) by Kränzlin. The specimens on the other sheet represent Ocampoa, which so far was considered monospecific and restricted in its geographical distribution to Guatemala and Mexico. The vegetative characters, e.g. short-petiolate leaves with a conspicuous net of nerves suggest a close relation of the genus to Baskervilla and Ponthieva. From the former, Ocampoa differs in the petals and lip being free from the gynostemium. Monospecific Ocampoa has been accepted by most taxonomists (Hágsater et al. 2005, Soto 2008). Recently Salazar et al. (2009), based on sequence data, embedded the genus in Ponthieva, despite essential differences in the flower and gynostemium morphology. The gynostemium of Ponthieva is stalked, swollen above a narrow base, and connate with the lip and petals, the petals are strongly asymmetric,

clawed, and the lip is small, fleshy, of various shapes. In *Ocampoa* the gynostemium is short, erect, relatively massive, swollen at the apex, the petals are linear, slightly sigmoid and oblique, and the lip is S- or C-shaped, clawed, concave at the base, constricted and arcuate-recurved above the middle. Based on those differences we prefer to maintain the generic distinctiveness of *Pon*-*thieva* and *Ocampoa*.

In this paper, we validate Kränzlin's *Ponthieva micromystax* together with the description of the new *Ocampoa* species.

Ponthieva micromystax Kraenzl. *ex* Szlach. & Kolan., *sp. nova* (Fig. 1)

TYPE: [Colombia. Dept. Valle del Cauca]. W Andes of Cali, 1800 m a.s.l., *Lehmann s.n.* (holotype W).

ETYMOLOGY: We retain the original species epithet *micro-mystax*. *Micro* means small, *mystax* means upper lip, moustache; a probable allusion to the relatively small size of the lateral sepals.

Plants about 35 cm tall. Leaves 6, basal, subsessile, blade up to 4.5 cm long and 1.3 cm wide, oblong-lanceolate, acute to obtuse. Scape erect, glandulose-puberulent above, enclothed by numerous sheaths. Inflorescence a fairly dense, many-flowered, cylindrical raceme. Flowers glandulose-pubescent externally. Floral bracts up to 6 mm long, ovate-lanceolate, acute to acuminate, glandulose-puberulent. Pedicellate ovary up to 7 mm long, glandulose-puberulent. Dorsal sepal about 5.5 mm long and 2 mm wide, lanceolate-ovate, subobtuse, 3-nerved. Petals up to 5 mm long and 3.5 mm wide, from an unguiculate base obliquely triangular-dolabriform, obtuse, rounded at base, glabrous, 5-nerved, branching. Lateral sepals about 6 mm long and 2.5 mm wide, obliquely oblong-ovate with a subfalcate apex, subobtuse, 3-nerved. Lip 4.5-4.8 mm long and 2.8-3 mm wide, distinctly short-unguiculate, concave, suborbicular, cordate at base, apex with an elongate, linear lobule rounded at apex; disc 5-nerved, nerves branching, papillose in basal half.

DISTRIBUTION: So far known exclusively from the Colombian Western Cordillera, where it was found at about 1800 m a.s.l.



Fig. 2. Specimens of *Ponthieva micromystax* (**A**) and *P. rostrata* (**B**).

Ponthieva micromystax appears to be similar to P. rostrata, a species widespread in the Andes. The tepals are similar in shape, but the lip morphology differs. The lip of *P. micromystax* is suborbicular with a linear, obtuse apical lobule, whereas the lip of *P. rostrata* is cymbiform-transversely elliptic with a deltoid or spathulate, acute apical lobule, widest just below the apex. The petal margins of P. micromystax are glabrous, but in P. rostrata they are minutely ciliate. Very distinctive characters of P. micromystax are its inconspicuous, subsessile, oblong-lanceolate leaves and the floral bracts almost as long as the ovaries. The leaf blade of P. rostrata is elliptic to lanceolateelliptic, with a 1-4 cm long pedicel, and the floral bracts are much shorter than ovaries (Fig. 2).

Ocampoa kraenzliniana Szlach. & Kolan., *sp. nova* (Fig. 3)

TYPE: Colombia. [Dept. Cauca]. Bei Laguna bei Pasto, 3200 m a.s.l., 17 Feb. 1880, *Lehmann 574* (holotype W, specimen on the right side of sheet; isotype W!, mounted on the same sheet).

ETYMOLOGY: Dedicated to Fritz Kränzlin (1847–1934).



Fig. 3. Ocampoa kraenzliniana, dissected perianth (drawn by A. Król from the holotype). — **A**: Dorsal sepal. — **B**: Petal. — **C**: Lateral sepal. — **D**: Lip (side view). — **E**: Lip. Scale bars = 3 mm.



Fig. 4. Comparison of the floral parts of *Ocampoa kraenzliana* (**A**, from the holotype) and *O. mexicana* (**B**, from Soto 2008). From left to right: lip, petal, lateral sepal. Drawn by A. Król and P. Baranow.

Plant about 37–45 cm tall. Leaves 2–3, basal, blade 8-12 cm long and 3 cm wide, lanceolateelliptic, acute to obtuse, tapering to a broad petiole 3-4 cm long. Peduncle erect, pubescent throughout, remotely several-sheathed, terminated by a fairly lax, many-flowered raceme, up to 9 cm long. Floral bract about 10 mm long, glabrous, lanceolate, acute to acuminate. Pedicellate ovary 6-7 mm long, glandular. Dorsal sepal 5.0-5.5 mm long, 1.3-1.6 mm wide, narrowly ovate, apex acute, 1-nerved. Petals 4-4.3 mm long, 1.0-1.1 mm wide, obliquely oblong to oblongovate, apex shortly apiculate, obtuse, 1-nerved. Lateral sepals 5 mm long, 3.5-3.8 mm wide, obliquely ovate-triangular, apex shortly apiculate, 1-nerved. Lip 5.0-5.5 mm long, 2.8-3.2 mm wide, claw C-shaped, base deeply concave, arcuate-recurved above middle, elliptic-obovate in outline, apex shortly apiculate, obtuse, margins slightly undulate, disc with 3-5-nerves, lateral ones branching. Gynostemium 3 mm long.

DISTRIBUTION AND HABITAT: So far known exclusively from the Colombian Andes, where it was found at about 3200 m a.s.l. It is flowering in February.

Ocampoa kraenzliniana differs from the only other known species of Ocampoa, O. mexicana, by the fairly densely flowered inflorescence (vs. inflorescence very dense), the obliquely oblong, shortly apiculate petals (vs. petals linear, rounded at the apex), 1-veined sepals (vs. sepals 3-veined), obliquely ovate-triangular, apiculate lateral sepals (vs. lateral sepals triangular-lanceolate), elliptic-obovate, shortly apiculate lip (vs. lip ovate, rounded at the apex) and the lack of papillose-verrucose pad on the lip disc, which is present in O. mexicana (Fig. 4).

The specimens of *O. kraenzliniana* are easily distinguished from *Ponthieva micromystax* and it is difficult to understand why the two herbarium sheets were marked by Kränzlin as *P. micromystax*. The leaves of *O. kraenzliniana* are distinctly petiolate (*vs.* subsessile in *P. micromystax*), the lateral sepals are obliquely ovate-triangular (*vs.* obliquely oblong-ovate), the petals are obliquely oblong to oblong-ovate (*vs.* obliquely triangular-dolabriform), the lip is elliptic-obovate in outline (*vs.* suborbicular with linear apical lobe) and the lip claw is C-shaped (*vs.* claw linear). Based on the form of the lateral sepals and the presence of the characteristic lip claw the specimens from Lehmanns' collection no. 574 belong in *Ocampoa*.

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