

***Zhukowskia*, a new orchid genus from Mesoamerica**

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ABSTRACT

A new Mesoamerican orchid genus, *Zhukowskia* Szlach., R. González & Rutk. (Spiranthoideae, Cyclopogoninae), is described and illustrated. Its taxonomic position versus *Pelexia* and *Sarcoglottis* is briefly discussed. Three new combinations are proposed: *Zhukowskia cerina* (Lindl.) Szlach., R. González & Rutk., *Z. lobata* (Lindl.) Szlach., R. González & Rutk. and *Z. smithii* (Rchb. f.) Szlach., R. González & Rutk.

KEY WORDS

Zhukowskia,
Orchidaceae,
Mesoamerica.

RÉSUMÉ

Zhukowskia, un nouveau genre d'Orchidaceae d'Amérique centrale.

Un nouveau genre d'Orchidaceae d'Amérique centrale, *Zhukowskia* Szlach., R. González & Rutk. (Spiranthoideae, Cyclopogoninae) est décrit et illustré. Sa position taxonomique, à proximité des genres *Pelexia* et *Sarcoglottis*, est brièvement discutée. Trois nouvelles combinaisons sont proposées: *Zhukowskia cerina* (Lindl.) Szlach., R. González & Rutk., *Z. lobata* (Lindl.) Szlach., R. González & Rutk. et *Z. smithii* (Rchb. f.) Szlach., R. González & Rutk.

MOTS CLÉS

Zhukowskia,
Orchidaceae,
Amérique centrale.

The subtribe Cyclopogoninae Szlach. (tribe Spirantheae Endl.), as defined by SZLACHETKO (1995), embraces seven genera (*Cocleorchis* Szlach., *Cyclopogon* Presl, *Pelexia* Poit. ex Lindl., *Sarcoglottis* Presl, *Stigmatosema* Garay, *Veyretia* Szlach. and *Warscea* Szlach.) and about 150 species in total. The generic delimitations between the largest genera of the group, i.e. *Cyclopogon*, *Pelexia* and *Sarcoglottis*, are not clear. In result, some species are included to one or another genus, depending on the researcher's point of view.

After 18 years of studies on Spirantheae, we came to the conclusion that the three genera mentioned above should be split to smaller, more natural groups, each with the status of separate genus. We will present the results of our investigation in the series of papers.

According to GARAY (1982) *Pelexia* differs from *Sarcoglottis* mostly in the spur structure. In the former, the line of adnation between lateral sepals and ovary is externally observable, in the latter – connate lateral sepals do not form such a line. Our studies, however, do not support this opinion. There is a group of three Mesoamerican species, formerly included to *Sarcoglottis* (SCHLECHTER 1920), but transferred to *Pelexia* by GARAY (1982), which do not fit the above description and occupy an intermediate position. They are: *Pelexia cerina* (Lindl.) Garay, *P. lobata* (Lindl.) Garay and *P. smithii* (Rchb. f.) Garay. Their flower form is very similar to that of *Sarcoglottis*, though they have a shallow, sac-like spur, which is not continuous with the ovary and the line between ovary and lateral sepals is well-seen externally.

In our opinion, these three species should be excluded from both *Pelexia* and *Sarcoglottis* and moved to the newly established genus, which we propose below.

Zhukowskia Szlach., R. González & Rutk., **gen. nov.**

Genus subtribus Cyclopogoniae. Flores inferne stricti, superne curvatissimi. Calcar prope basin subrotundum, indistinctum, non decurrens basin versus ovarium ut in genere Sarcoglottis. Sepali lateraliter

valde recurvata, prope basin utricularia, tortilia. Hypochilium labelli angustum, epichilium latissimum, indistincte trilobatum, excisum. Auriculi basalia labelli secus hypochilium decurrentia et in laminam evanescentia. Rostellum alatum.

TYPUS. — *Spiranthes smithii* Rchb. f.

The flowers are erect in the basal part, adhering to the inflorescence axis, abruptly curved down at the apex, hence more or less hook-like. The inconspicuous spur is usually descending to the middle of the ovary, shallowly saccate at the apex only. Lateral sepals are strongly falcate, saccate at the base, and twisted in the free part. The lip set on a claw, which is thin, strongly S-shaped, adjoined with petals. Hypochile is narrow, usually ribbon-like, transforming gradually into the greatly widened epichile. Epichile is unclearly 3-lobed, with sinus between lobes, abruptly bent forward. Basal lip auricles are slender, parallel to the claw, running down and disappearing along the hypochile margins. Rostellum is narrowly winged.

The generic name is dedicated to Prof. Waldemar ZUKOWSKI, an eminent Polish botanist from Poznan University. The genus embraces at least three species, all known from Mesoamerica. — Fig. 1.

Zhukowskia cerina (Lindl.) Szlach., R. González & Rutk., **comb. nov.**

Spiranthes cerina Lindl., Bot. Reg. 28, Misc.: 20 (1842). — Type: *Hartweg s.n.*, Guatemala, Feb. 1842 (holo-, K!).

Zhukowskia lobata (Lindl.) Szlach., R. González & Rutk., **comb. nov.**

Spiranthes lobata Lindl., Bot. Reg. 30, Misc.: 11 (1844). — Type: *Cardew s.n.*, s.loc., Feb. 1845 (holo-, K!).

Zhukowskia smithii (Rchb. f.) Szlach., R. González & Rutk., **comb. nov.**

Spiranthes smithii Rchb. f., Gard. Chron.: 842 (1868). — Type: *Smith s.n.*, Costa Rica, May 1868 (holo-, W!).

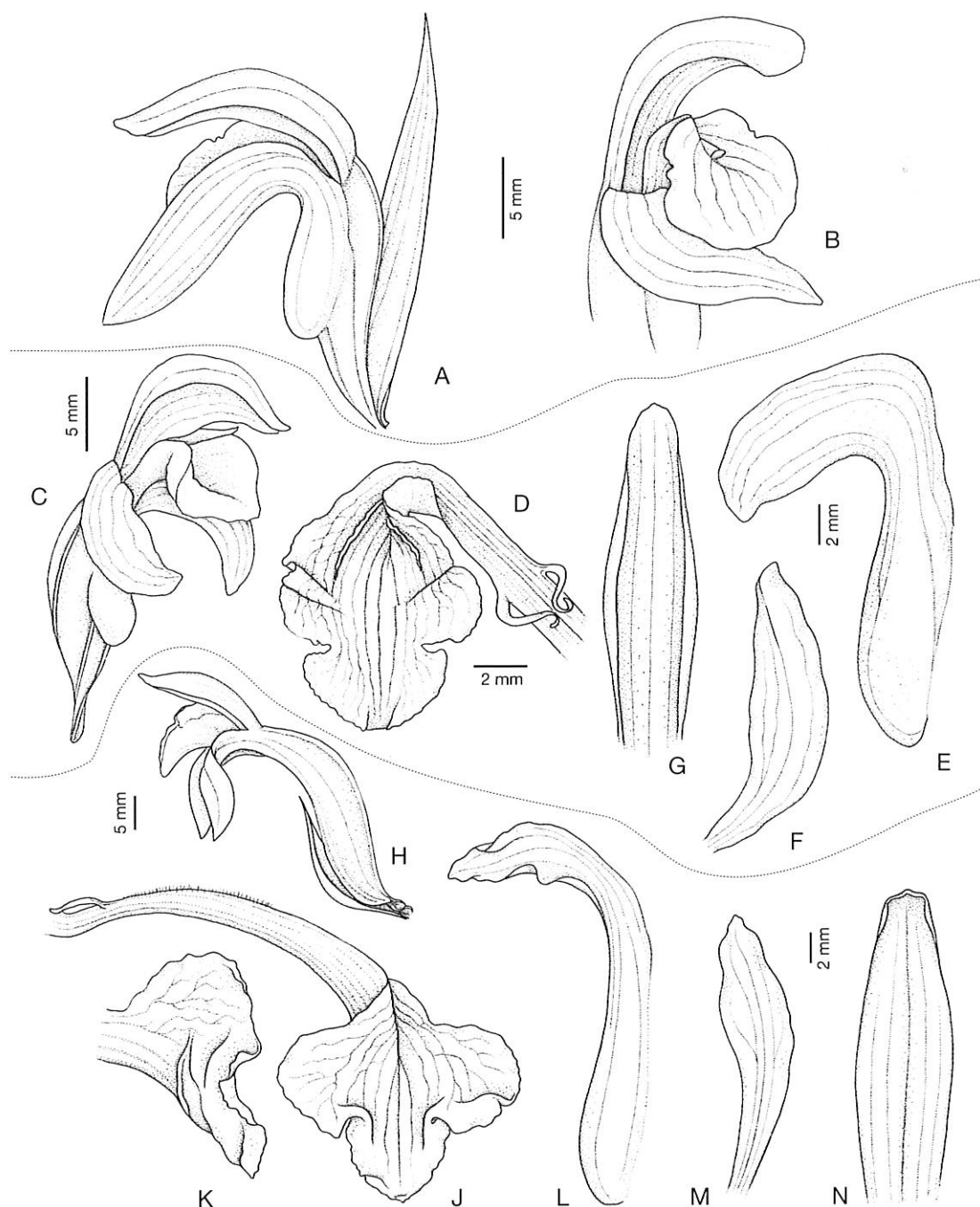


Fig. 1. — *Zhukowskia cerina* (Lindl.) Szlach., R. González & Rutk.: A, flower; B, flower with the flattened lip apex. (*Hartweg s.n.*, K). — *Zhukowskia lobata* (Lindl.) Szlach., R. González & Rutk.: C, flower; D, lip; E, lateral sepal; F, petal; G, dorsal sepal. (*Cardew s.n.*, K). — *Zhukowskia smithii* (Rchb. f.) Szlach., R. González & Rutk.: H, flower; J, lip; K, epichile, side view; L, lateral sepal; M, petal; N, dorsal sepal. (*Biolley 3521*, US, type of *Sarcoglottis valida* Ames).

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