

SAUROLOPHORKIS (ORCHIDACEAE, MALAXIDINAE), A NEW ORCHID GENUS FROM NEW GUINEA

HANNA B. MARGOŃSKA & DARIUSZ L. SZLACHETKO

Abstract: A new orchid genus, *Saurolophorkis* Marg. & Szlach., *gen. nov.*, is described, illustrated, and compared with other genera of the subtribe Malaxidinae. New species – *Saurolophorkis cordanthemon* Marg. & Szlach., *sp. nov.* – from New Guinea is proposed.

Key words: Magnoliophyta, Orchidales, Malaxidinae, *Saurolophorkis*, taxonomy, New Guinea

Hanna B. Margońska & Dariusz L. Szlachetko, Department of Plant Taxonomy and Nature Conservation, Gdańsk University, Al. Legionów 9, PL-80-441 Gdańsk, Poland; e-mail: biodarek@univ.gda.pl

While examining herbarium specimens of the orchid subtribe Malaxidinae we found unusual specimens from New Guinea. Comparing them with any other member of Malaxidinae we came to the conclusion that they are still undescribed and represent a genus new to science. We describe it below:

Saurolophorkis Marg. & Szlach., *gen. nov.*

(Fig. 1)

Plantae a genera Crepidium et Pseudoliparis appropinquat. Inflorescentia elongata. Flores non convoluti. Sepali laterales fere ad apicem connati. Labellum hippocrepiforme, margine superiori undulato verrucosoque. Gynostemium processo flabelliformi recurvato praeditum. Stamen dorsalis movens. Pollinia 4.

Plants small. Roots short, filiform, produced at base of pseudobulbs. Pseudobulbs oblong-ovate to conical. Leaves 2–3, with the lower being widest and longest; leaf blade ovate to cordate, rather plicate, clasping inflorescence at base; widening towards base into the sheath and very short petiole. Inflorescence terminal, elongate, with several flowers, racemose, dense. Floral bracts lanceolate to oblong-triangular, attenuate, acute, vein prominent beneath. Flowers medium-sized, more than 1 cm in diameter, nonresupinate. Tepals widely spread, with parallel nerves, often dichotomous near margins and with anastomoses. Lateral sepals oblique, broadly ovate, connate nearly to the shal-

lowly incised, obtuse apex, obcordate at base, concave. Dorsal sepal broadly ovate, obtuse to rounded at apex. Petals lanceolate, attenuate, obtuse, moderately falcate to sinuate. Lip spurless, hippocrepiform in general outline, obscurely 3-lobed; with oblong and narrow cavity from base of gynostemium to apex of midlobe, surrounded by

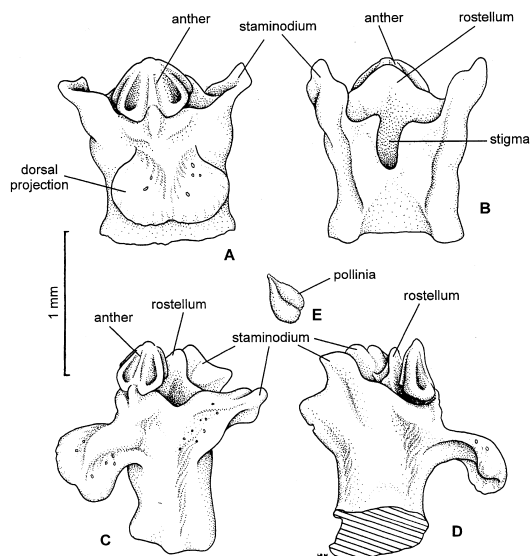


Fig. 1. Gynostemium structure in genus *Saurolophorkis* Marg. & Szlach. A – dorsal view, B – bottom view, C & D – side view, E – pollinia (drawn from generitype – *Saurolophorkis cordanthemon*).

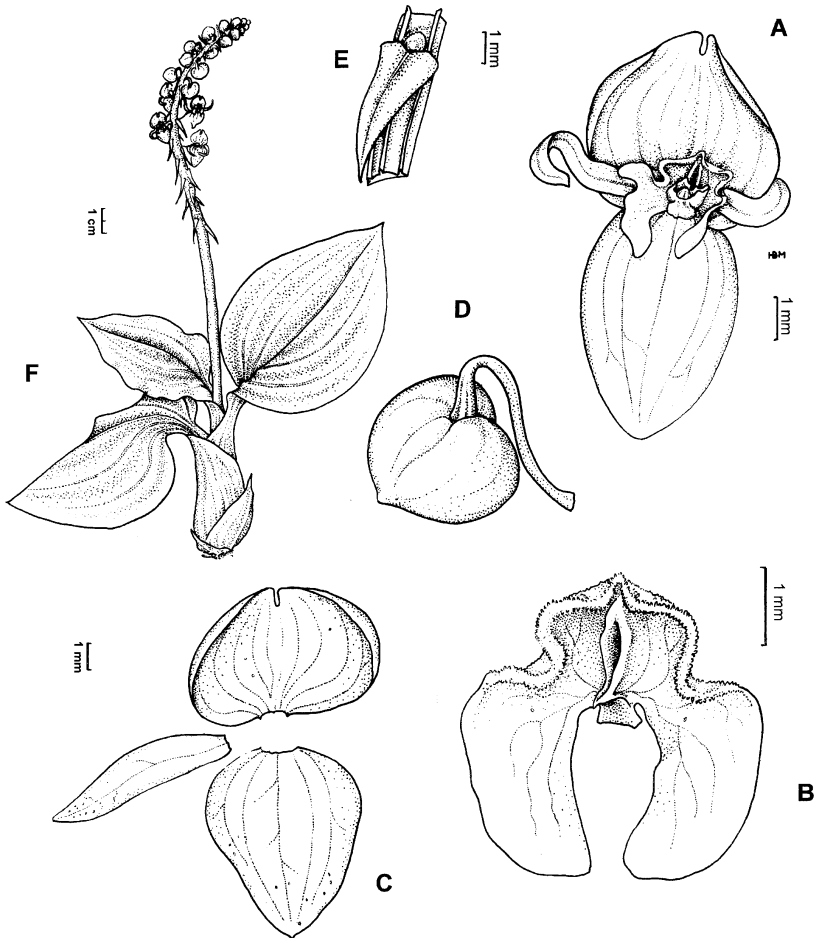


Fig. 2. *Saurolophorkis cordanthemon* Marg. & Szlach., *sp. nov.* A – flower, B – lip, frontal view, C – tepals, D – bud, E – floral bract with part of rachis, F – plant with inflorescence (drawn from holotype and paratypes-K – spirit. coll.).

thick and prominent fovea, terminated at base by narrow and acute callus; basal lip auricles large and long, semiobovate, broadly rounded at apex, usually embracing gynostemium; margins entire; nerves delicate, median ones parallel, lateral ones radiate, often dichotomous near margins. Fruit pedicellate, capsulate, ovoid or obovoid, 6-ribbed.

Gynostemium erect, massive, with 2 apical finger-like projections. Column part short, with massive, dorsal flabelliform projection below anther. Its margins moderately wavy. Anther cordate or broadly ovate, dorsal, erect, movable, easily

falling off, connective narrow; thecae opening ventrally. Rostellum foveolate, thin, subobtuse, erect. Viscidium absent. Pollinia four, narrowly clavate, with small apical caudiculae.

GENERITYPE: *Saurolophorkis cordanthemon* Marg. & Szlach. (see below).

ETYMOLOGY. *Parasaurolophus* – a genus of dinosaur with a huge projection at the top of the head. An allusion to the gynostemium dorsal projection, characteristic of the new genus.

NOTE. This genus probably is distantly related to *Crepidium* Bl., with which it shares similar gynostemium structure and general lip form. The peculiar dorsal gynostemium projection can suggest its affinity with *Pseudoliparis* Finet, but the genera differ clearly in the morphology of the flower segments. *Saurolophorkis* is unique amongst Malaxidinae in the following combination of features: almost complete fusion between lateral sepals, which can suggest a pleurothalloid rather than malaxidoid genus, at least at first glance; undulate and densely papillate apical margins of the lip, not found in any other member of Malaxidinae; and the presence of a massive dorsal projection on the gynostemium.

Saurolophorkis is so far a monotypic genus.

Saurolophorkis cordanthemon Marg. & Szlach., *sp. nov.* (Fig. 2)

Alabastri cordat, complanatique. Sepali laterales fere ad apicem coaliti. Labellum hoppocrepiforme. Gynostemium processo flabelliformi praeditum.

Pseudobulbs 3–6 cm long, 1–2 mm in diameter, covered by leaf bases and few scales. Leaves 9–10 cm long, 4.0–6.5 cm wide, pale silvery green. Floral bracts 3–6 mm long, 1.1–2.1 mm wide. Inflorescence 10–20-flowered; peduncle 0.9–1.0 mm in diameter. Buds distinctly cordate. Flowers green, apple green to fawn. Lateral sepals *ca* 0.5 cm long, *ca* 0.7 cm wide, 4–5-nerved, green. Dorsal sepal 0.68–0.70 cm long, 0.55–0.60 cm wide,

5-nerved, pale brownish. Petals 0.66–0.68 cm long, 0.15–0.17 cm wide, narrowly lanceolate, attenuate, at apex acute to obtuse, slightly sinuate, pale brownish. Lip 4.0–4.2 mm long, 3.7–3.8 mm wide; midlobe with incurved margins, margin and outer surface papillose, midlobe separated from lateral lobes by soft constriction and distinct curvature; lateral lobes 2.7–2.8 mm long, 1.5–1.6 mm wide, nearly touching at apex; cavity *ca* 1 mm long, deep, callus dark green to blue-green; buff to yellow. Gynostemium 1.4–1.6 mm long, *ca* 1 mm wide, dorsal projection 4–6 mm long, at base 4–5 mm wide, at half length about 7 mm wide, green, dark green to blue-green, anther greenish yellow.

TYPE: NEW GUINEA. *Sine loc.*, 22.10.1975, P. F. Hunt 232 (HOLOTYPE: K-spirit coll.).

PARATYPE: NEW GUINEA. Nonchege, 23.07.1954, M. Mason *et al.* 7 (K-spirit coll.).

ETYMOLOGY. *Cordi* (Lat.) – heart; *anthemon* (Gr.) – flower. An allusion to the shape of the flowers, especially the buds.

DISTRIBUTION. Known so far from the above mentioned collections. Alt. 1600–2300 m.

ACKNOWLEDGMENTS. We are grateful to the Curators of B, BM, K, P and W for their hospitality during personal visits, the Curator of B and L for the loan of herbarium materials, and Prof. Dr. Ryszard Ochyra for Latinizing the diagnoses. This study was financed by KBN grants no. 6P04C-063-15 and 6P04C-055-16.

Received 4 September 2000