Notes on the genus *Pseudoliparis* (Orchidaceae, Malaxidinae), with descriptions of two new species from New Guinea

Hanna B. Margońska & Dariusz L. Szlachetko

The Australasian genus *Pseudoliparis* Finet (Orchidaceae, Malaxidinae) is characterised by a unique gynostemium structure. There is a horn or a ridge on the dorsal surface of the column part and a narrowly triangular, acute rostellum, subequal in length to the anther. Additionally, the flower segments differ from the related genus *Crepidium* BI. The sepals and petals are subsimilar, the lip being unlobed or obscurely 3-lobed and basally auriculate. It lacks teeth of any kind.

While examining specimens for a revision of *Pseudoliparis*, we also found some specimens which differ distinctly from all congeners. They represent two new species described here.

**Pseudoliparis gregorii** Marg. & Szlach., *sp. nova* (Fig. 1)

*Species haec Pseudoliparidi breviscapae similis, sed marginibus sepalorum et labelli undulatis et labello cucullato, concrassatione nullo recedit.*

**Type**: New Guinea. West part, valley of the lower Pami River, ca. 5 km N of Manokwari. 25.XIII.1957, *Koster BW 4379* (holotype L).

Terrestrials. Pseudobulbs ca. 6.8 cm long, 4.0–7.0 mm in diameter, cylindrical to fusiform, ascending. Leaves ca. 6; petiole 1.8–3.3 cm long, canaliculate, widening towards base where form-
ing a sheath; leaf blade 9.2–13.3 cm long, 3.2–4.9 cm wide, ovate to oblong-ovate, acuminate, medium-green. Inflorescence ca. 34.5 cm long, erect; spike ca. 17.2 cm long, with 100–150 flowers or more, fairly dense in lower part, dense above. Flowers rather small, nonresupinate, yellow. Floral bracts up to 1.0 cm long, wide at base, linear to oblong-triangular, acuminate. Pedicel and ovary up to 1.0 cm long, slender. Dorsal sepal 3.2–3.5 mm long, 1.5–2.0 mm wide, oblong-ovate, slightly plicate, acuminate at apex, 3-nerved. Petals 3.2–3.4 mm long, 0.8–0.9 mm wide, oblong-lanceolate, slightly falcate, long acuminate at apex, 1-nerved. Lateral sepals 2.8–3.1 mm long, 1.8–2.2 mm wide, oblong-ovate, acuminate at apex, 3-nerved. Lip 3.3–3.6 mm long, 3.0–3.4 mm wide, lamina obscurely orbicular in general outline, middle lobe semiorbiculate, with a shallow cavity, irregularly plicate, rounded at apex, side lobes semiorbiculate, long-auriculate; auriculae 1.2–1.5 mm long, up to 1.5 mm wide at base, triangular to falcate, plicate, slightly apiculate to rounded at apex, central part of lip flat. Gynostemium up to 2.0–2.2 mm long, staminodium wide, with a falcate process typical for the genus.

ETYMOLOGY. The species named in honour of Prof. Dr. hab. Grzegorz Węgrzyń, an eminent Polish molecular biologist, working at Gdański University, Poland.

DISTRIBUTION. Known only from the type collection. It was growing in a primary forest, on clay soil. Alt. ca. 40 m.

_Pseudoliparis gregorii_ is somewhat similar to _P. breviscapa_ (Schlecht.) Szlach. & Marg., although the sepals and lip margins are distinctly undulate. Also, the lip has a cucullate apex and is completely devoid of thickenings.

**Pseudoliparis cruciatis** Marg. & Szlach., _sp. nova_ (Fig. 2)

*Species haec Pseudoliparidi graminifoliae et _P._ stenophyllae vergens, sed recedit labello concrassatione nullo, unguo distincto insidento et staminodis digitatis antice gynostemii cruciatis.*


Terrestrials. Pseudobulbs ca. 3.6 cm long, 1.2–2.0 mm in diameter, fusiform, ascending. Leaves ca. 8; petiole 2.0–4.0 mm long, canaliculate, widening towards base where forming a sheath; leaf blade 1.8–4.2 cm long, 0.5–0.9 cm wide, oblong-lanceolate, thick, dark-green. Inflorescence ca. 11.3 cm long, erect and delicate; spike ca. 4.2 cm long, with ca. 20–25 flowers, fairly dense in lower part, dense above. Flowers medium-sized, non-resupinate, cream-white. Floral bracts up to 0.5 cm long, wide at base, narrowly oblong-triangular, acuminate. Pedicel and ovary up to 4.0–5.0 mm long, slender. Dorsal sepal ca. 3.5 mm long, 1.8–1.9 mm wide, oblong-ovate, slightly plicate, rounded at apex, 3-nerved. Petals 2.8–2.9 mm long, 1.6–1.8 mm wide, rhomboid, slightly falcately curved, plicate, acute at apex, 1-nerved. Lateral sepals ca. 3.0 mm long, 1.9–2.0 mm wide, ovate, rounded at apex, 3-nerved. Lip ca. 2.8 mm long, 2.5–2.7 mm wide, lamina resembling a wide arrow in general outline; middle lobe wide and semiorbiculate, slightly and irregularly plicate, with a small tooth at apex, ca. 0.3 mm long and wide at base, acute at apex; side lobes long-auriculate; auriculae 0.8–1.0 mm long, 0.6–0.8 mm wide at base, semiovate, shortly apiculate to rounded at apex, central part of lip flat, basal part of lip very wide, up to 1.2 mm. Gynostemium ca. 1.7 mm long, with a falcate, wide process, dark green, typical for the genus; staminodes narrow and falcately curved.

ETYMOLOGY. The epithet refers to the staminodes crossed in front of the anther.

DISTRIBUTION. Known only from the type collection. Growing in undergrowth of _Castanopsis_ forest. Alt. 600 m.

This species appears to be related to _Pseudoliparis graminifolia_ (Schlecht.) Szlach. & Marg. and _P. stenophylla_ (Schlecht.) Szlach. & Marg.. However, its lip is completely devoid of callosity and is set on a distinct claw. Furthermore, the digitate staminodes are crossed in front of the anther.

In the course of our studies, it became clear that two species currently placed in other genera should be transferred to _Pseudoliparis_. Thus, we propose the following new combinations:

**Pseudoliparis balabacensis** (Ames) Marg. & Szlach., _comb. nova._

Basionym: _Malaxis balabacensis_ Ames, Phil. J. Sci. (Bot.)
Pseudoliparis latipetala (J. J. Sm.) Marg. & Szlach., comb. nova.


Acknowledgments. We are grateful to Prof. Dr. hab. Ryszard Ochyra for the Latinization of the diagnosis and the Curators of BM, HBG, L and W for loaning herbarium specimens and/or their hospitality during our visits. This study was financed by KBN (Polish Committee for Scientific Research) grants No. 6P04C-063-15 and 6P04C-055-16.

Reference