

Malaxidinae index nominalis – *Pseudoliparis* FINET, section *Pseudoliparis* (Orchidaceae)

H.B. Margońska*

Abstract

This part of the Malaxidinae index nominalis presents taxa of the type-section of genus *Pseudoliparis* FINET emend. SZLACH. & MARG., which is restricted to South East Asia and Oceania (Micronesia). One new nomenclatural combination on var. level and two new lectotypes are proposed. One new record within the genus is cited.

Key-words: *Crepidium*, *Liparis*, Malaxidinae, *Malaxis*, *Microstylis*, nomenclature, *Pseudoliparis*, section *Oistochilus*, Orchidaceae, section *Pseudoliparis*, taxonomy.

Zusammenfassung

Dieser Teil der Malaxidinae index nominalis präsentiert die Taxa von *Pseudoliparis* FINET emend. SZLACH. & MARG. section *Pseudoliparis*, die in Südostasien und Ozeanien (Micronesien) vorkommen. Eine neue Varietäts-Kombination und zwei neue Lectotypen werden vorgeschlagen, ein neuer Fund wird berichtet.

Introduction

The genus *Pseudoliparis* contains 41 taxa. Most of these orchids are known from very poor herbarium specimens or/and preserved liquid collections, occasional cultivation, some of them from type-specimens only. The knowledge about their ecology, phenology and real occurrence is very fragmentary, as well. The most distinguished *Pseudoliparis* features are mostly unique within subtribe Malaxidinae, e.g. colouration of flowers, morphology and ornamentation of lip and gynostemium, which resulted from adaptation to a specific kind of so far unknown pollinating insects.

The species occur in South East Asia, from Taiwan, Macronesia (particularly New Guinea and its islands) to Micronesia (e.g. Solomon Archipelago and Bougainville Islands) only.

Results and Discussion

Taxonomic history, problems and the characteristics of *Pseudoliparis* FINET (1907) were presented in a recently published part of Malaxidinae index nominum (MARGOŃSKA 2008). Infrageneric arrangement and taxonomic revision of the genus is nearly elaborated (MARGOŃSKA 2003a, 2003b, 2005, in prep.). There are two sections: the type-sec-

tion and section *Oistochilus*. The last one contains only 8 species, is easily distinguished by lack of any appendages or distinct convexity along the dorsal part of gynostemium column, and was already presented (MARGOŃSKA 2008).

Most of the species (33) belong to the type-section. The orchids are epiphytic, often terrestrial or sometimes and occasionally lithophytic species. They are mostly up to 30 cm high, with creeping, often elongate and branched rhizomes and distal, erect or ascending stems, finalised by an apical inflorescence. Similarly as in section *Oistochilus*, the type-section species flowers are mid size, somewhat fleshy, odourless to gently fragrant, with differently shaped petals (linear, lanceolate, elliptic, rhombic, obtrullate, obovate, oblanceolate); usually with 1, rarely more veins or with laterally branched main veins; lip unlobed or only obscurely 3-lobed, always with entire margins, auriculate, flat (lack of basal cavity), ornamented at central part by parallel calli, lamellae or only obscure convexity.

The most characteristic features for the section are present of mostly horn-like appendage(s) or explicit convexity at the dorsal portion of the gynostemium column. Two localisations of the appendage(s) can be recognized: 1) about half or at upper half of the column length and 2) around the basal part of the column. There are two forms of the gynostemium staminodes, as well: (1) elongate, higher than the anther, simply, transversely truncate at distal margins; and 2) abbreviate, at similar length to the anther, with distal margins obliquely narrowed up to their apices. The anther is usually narrowly ovate to cordate, and stiffly fused with the column top, whereas the rostellum is similar sized and shaped to the anther, always erect and adnate to the top of the anther (MARGOŃSKA 2005).

The names in the index are given as:

bold italic – current name,

italic – published name

≡ homotypic taxon (based on the same type-specimens)

= heterotypic taxon (based on different type-collections); following – the citation is given, where the taxon was put into this synonymy first time.

Illegitimate and misunderstood names ("sensu") are given in normal letters. Herbaria are given with their abbreviations in Index Herbariorum (<http://sweetgum.nybg.org/ih/>).

"‡" – the specimen has probably been lost during the Berlin disaster; "!" – the specimen has been seen.

Note: It is still possible that duplicates of Schlechter's collections exist, therefore no neotypes are chosen in all cases, when the only known type has been lost in Berlin.

- Pseudoliparis*** FINET, Bull. Soc. Bot. France 54: 536 (1907), emend. SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 275–282 (1999)
- ≡ *Crepidium* BL. emend. SZLACH. subgenus ***Pseudoliparis*** (FINET) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 123 (1995)
- ≡ *Malaxis* SOL. ex SW. section ***Pseudoliparis*** (FINET) SEIDENF., Bot. Tidskr. 73, 2: 97–104 (1978–79)

≡ *Microstylis* (NUTT.) EATON section *Pseudoliparis* (FINET) J.J.SM., Bull. Dept. Agri. Ind. Neerl. 22: 22 (1909).

Type species: *Pseudoliparis epiphytica* (SCHLTR.) FINET

***Pseudoliparis* sect. *Pseudoliparis* index nominalis**

Pseudoliparis* FINET section *Pseudoliparis

≡ *Microstylis* (NUTT.) EATON section *Pseudo-Liparis* SCHLTR., Repert. Spec. Nov. Regni Veg., Beih. 1: 112 ((1911) 1914)

≡ *Malaxis* SOL. ex SW., *Pseudoliparis* (SCHLTR.) KORES, Allertonia 5 (1): 46 (1989).

***Pseudoliparis arietina* (AMES) MARG. & SZLACH., Ann. Bot. Fen. 40 (1): 63 (2003).**

≡ *Malaxis arietina* AMES, Philip. J. Sc., Bot. 8 (1913): 411 (1914)

≡ *Crepidium arietinum* (AMES) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 124 (1995).

Type: Philippines, Camaguin de Mindanao, 03–04.1912., M. Ramos s.n., BSN 14418 [holotype: AMES 13023!, isotype: US 00241367!].

***Pseudoliparis balabacensis* (AMES) MARG. & SZLACH., Ann. Bot. Fen. 40 (1): 63 (2003)**

≡ *Malaxis balabacensis* AMES, Philip. J. Sc., Bot. 6 (1): 42–43 (1911)

≡ *Crepidium balabacense* (AMES) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 124 (1995).

Type: Philippines, Balabac Island, 10.1906., E.D. Merrill 5374 [holotype: US 00093431!, isotypes: AMES 101099!, K!, PNH].

***Pseudoliparis bataanensis* (AMES) MARG. & SZLACH., Ann. Bot. Fen. 40 (1): 63 (2003)**

≡ *Malaxis bataanensis* AMES, Philip. J. Sc., Bot. 6 (1): 63 (1911)

≡ *Crepidium bataanense* (AMES) CLEM. & JONES, Lasianthera 1: 35 (1996).

Type: Philippines, Luzon, Bataan Prov., Lamas Forest Reserve, Mt. Mariveles, 10.1906, F.W. Foxworthy 653 BSN 1674 [holotype: PNH, isotype: AMES 9433!].

***Pseudoliparis brachycaulos* (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 276 (1999)**

≡ *Microstylis brachycaulos* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1: 117. ((1911) 1914)

≡ *Malaxis brachycaulos* (SCHLTR.) HUNT, Kew Bull. 24: 78 (1970)

≡ *Crepidium brachycaulos* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 124 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Finisterre Range (Madang Distr.), 09.1908, R. Schlechter 18158 [holotype: B†].

***Pseudoliparis breviscapa* (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 276 (1999)**

≡ *Microstylis breviscapa* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1: 116. ((1911) 1914)

≡ *Malaxis breviscapa* (SCHLTR.) HUNT, Kew Bull. 24: 78 (1970)

≡ *Crepidium breviscapum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 124 (1995).

Type: Papua New Guinea. Kaiser-Wilhelms-Land, the Bismarck Range near Hokrocho (Madang Distr.), 11.1908., R. Schlechter 18587 [holotype: B \ddot{u}].

Pseudoliparis cruciatis MARG. & SZLACH., Ann. Bot. Fen. 37 (4): 281–282 (2000).

Type: Indonesia, New Guinea, Vogelkop Peninsula. Aifat River Valley, near Sururem, 10.1961., P. Van Royen & H. Sleumer 7032 [holotype: L 963 8-246!].

Pseudoliparis curvatula (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 276 (1999)

≡ *Microstylis curvatula* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 117–118. (1914)

≡ *Malaxis curvatula* (SCHLTR.) HUNT, Kew Bull. 24: 79 (1970)

≡ *Crepidium curvatulum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 125 (1995).

Type: Papua New Guinea. Kaiser-Wilhelms-Land, Kani Range (Madang Distr.), 03.1908., R. Schlechter 17499 [holotype: B \ddot{u}].

Pseudoliparis curviauriculata SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 279 (1999).

Type: Indonesia, New Guinea, Vogelkop Peninsula. Aifat River Valley, N slope of the Eastern part of Tohkiri Ran, path Sururem-Timtum, 10.1961, P. Van Royen & H. Sleumer 6916 [holotype: L 963 112-836!].

Pseudoliparis diploceras (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 276 (1999)

≡ *Microstylis diploceras* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 118–119. (1914)

≡ *Malaxis diploceras* (SCHLTR.) HUNT, Kew Bull. 24: 78 (1970)

≡ *Crepidium diploceras* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 126 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Kani Range (Madang Distr.), 01.1908., R. Schlechter 17228 [holotype: B \ddot{u}].

Pseudoliparis epiphytica (SCHLTR.) FINET, Bull. Soc. Bot. France 54: 537 (1907)

≡ *Microstylis epiphytica* SCHLTR., Nachtr. Fl. Deutsch. Schutzgeb.: 99 (1905)

≡ *Malaxis pseudoliparis* (SCHLTR.) HUNT, Kew Bull. 24: 80 (1970), nom.n.

Annot.: not *Malaxis epiphytica* AMES, Sched. Orchid. No. 6, 34 (1923) = *Crepidium epidendrum* CLEM. & JONES, Lasianthera 1: 35 (1996).

≡ *Crepidium epiphyticum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 126 (1995).

Type: Papua New Guinea. Kaiser-Wilhelms-Land, Torricelli Range (Sepik Distr.), below Apur, 500 m, 04.1902., R. Schlechter 14382 [holotype: B \ddot{u} , lectotype (designated here): BM-000082931!, isotypes: AMES-101158!, K!].

Pseudoliparis gregorii MARG. & SZLACH., Ann. Bot. Fen. 37 (4): 279–281 (2000).

Type: Papua New Guinea, W part, valley of the lower Pami River, ca. 5 km N of Manokwari Div., 08.1957., Ch. Koster BW 4379 [holotype: L 959 136-654!].

Pseudoliparis heliophoba (J.J. SM.) MARG., Ann. Bot. Fenn. 40: 63–66 (2003)

≡ *Microstylis heliophoba* J.J. SM., Bull. Dep. Agr. Ind. Neerl. 11: 556 (1913)

≡ *Malaxis heliophoba* (J.J. SM.) HUNT, Kew Bull. 24: 80 (1970)

≡ *Crepidium heliophobum* (J.J. SM.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 127 (1995).

Type: Indonesia, New Guinea, Gautier Mts, Nord slope, 11.1911, Gjellerup 865 [holotype: BO, drawing!, isotype: BO spir.coll.].

Pseudoliparis incurva (J.J. SM.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis incurva* J.J. SM., Bull. Dep. Agr. Ind. Neerl. 19: 29 (1908)

≡ *Malaxis incurva* (J.J. SM.) AMES & C. SCHWEINF., Orchidaceae 6: 73 (1920)

≡ *Crepidium incurvum* (J.J. SM.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 127 (1995).

Type: Indonesia, New Guinea, near Nord River, Bivak Island, 05.1907, G.M. Versteeg 1070 [holotype: BO, drawing!, isotype: BO spir.coll.].

Pseudoliparis inexpectata (J.J. SM.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis inexpectata* J.J. SM., Bull. Jard. Bot. Buitenz. Ser. 3., 10 (1–2): 33 (1928)

≡ *Crepidium inexpectatum* (J.J. SM.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 127 (1995).

Type: Indonesia, Sumatra, sine prec. loc. (by author: probably in the vicinity of Sibolangit), 02.1916, G.M. Versteeg 1070 [holotype: BO, drawing!, isotype: BO spir. coll.].

Note: The species was previously recorded as endemic to Indonesia (Sumatra), only. Recently, in 2004, the orchid was found in Gunung Mat Cincang in Langkawi, Peninsula Malaysia, as well (Mariam Jutta pers. comm., photo and specimens seen).

Pseudoliparis kortylewskaeana MARG., Ann. Bot. Fen. 42: 289–291 (2005).

Type: Papua New Guinea, Simbu Prov., Gembogl Subprov., Ku'nigl, 02.1984., J. Sterly 1717 [holotype: L 988 256-297!].

Pseudoliparis laevis (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999).

≡ *Microstylis laevis* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 112 (1914).

≡ *Malaxis laevis* (SCHLTR.) HUNT, Kew Bull. 24: 78 (1970).

≡ *Crepidium laevis* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 128 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Kani Range (Madang Distr.), 01.1909., R. Schlechter 19142 [lectotype (MARGOŃSKA 2005: 280): L 930 262-15 / 0063709!, isotypes: AMES 101664!, BO, B♣], R. Schlechter 17131 [syntype: B♣].

Pseudoliparis latipetala (J.J. SM.) MARG. & SZLACH., Ann. Bot. Fen. 37 (4): 281–282 (2000)

≡ *Microstylis latipetala* J.J. SM., Bull. Jard. Bot. Buitenz. Ser. 3., 10 (1–2): 33 (1928).

≡ *Malaxis latipetala* (SCHLTR.) HUNT, Kew Bull. 24: 81 (1970).

≡ *Crepidium latipetalum* (J.J. SM.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 128 (1995).

Type: Indonesia, New Guinea, S from Gelkshugel, Exp. Lorentz 1907., Djibdja s.n., cult.in Hort.Bog. no.383 Indonesia, Sumatra, sine prec. loc. (by author probably in the vicinity of Sibolangit), G.M. Versteeg 1070 [holotype: BO, J.J. SMITH drawing!].

Pseudoliparis maboroensis (SCHLTR.) SZLACH. & MARG., *Adansonia*, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis maboroensis* SCHLTR., *Rep. Spec. Nov. Reg. Veg. Beih.* 1 (1911): 113–114 (1914)

≡ *Malaxis maboroensis* (SCHLTR.) HUNT, *Kew Bull.* 24: 81 (1970)

≡ *Crepidium maboroenses* (SCHLTR.) SZLACH., *Fragm. Flor. Geobot., Suppl.* 3: 128 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Maboro Mountains Range (Northern Distr.), 05.1909., R. Schlechter 19507 [holotype: B♂, lectotype (designated here): L 930 262-20 / 0063817!]

Pseudoliparis macrotis (KRAENZL.) SZLACH. & MARG., *Adansonia*, Ser. 3, 21 (2): 277 (1999)

≡ *Liparis macrotis* KRAENZL., in SCHUMAN & LAUTERBACH, *Nachtr. Fl. Deutsch. Schutzgeb.*: 104 (1905). *Rep. Spec. Nov. Reg. Veg. Beih.* 1 (1911): 113–114 (1914)

≡ *Microstylis macrotis* (KRAENZL.) SCHLTR., *Rep. Spec. Nov. Reg. Veg. Beih.* 1 (1911): 113 (1914)

≡ *Malaxis macrotis* (KRAENZL.) HUNT, *Kew Bull.* 24: 78 (1970)

≡ *Crepidium macrotis* (KRAENZL.) SZLACH., *Fragm. Flor. Geobot., Suppl.* 3: 128 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, E coast (Morobe Distr.), near mouth of Bubui River, Simbag, Nymann 789 [holotype: B♂].

Pseudoliparis magnicallosa MARG. & SZLACH., *Pol. Bot. J.* 46 (1): 39-42 (2001).

Type: Solomon Islands, Western part, Kolombangara, South side, ca. 5 km inland from Ringgi Core, 11.1987., P. Cribb & J. Campbell 5105 [holotype: K!].

Pseudoliparis microhybos (SCHLTR.) SZLACH. & MARG., *Adansonia*, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis microhybos* SCHLTR., *Rep. Spec. Nov. Reg. Veg. Beih.* 1 (1911): 115–116. (1914)

≡ *Malaxis microhybos* (SCHLTR.) HUNT, *Kew Bull.* 24: 82 (1970)

≡ *Crepidium microhybos* (SCHLTR.) SZLACH., *Fragm. Flor. Geobot., Suppl.* 3: 129 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Maboro Mountains Range (Northern Distr.), 06.1909, R. Schlechter 19865 [holotype: B♂].

Pseudoliparis multiflora (AMES & C. SCHWEINF.) MARG. & SZLACH., *Ann. Bot. Fen.* 40 (1): 63–66 (2003)

≡ *Malaxis multiflora* AMES & C. SCHWEINF., *Orchidaceae* 6: 75 (1920)

≡ *Crepidium multiflorum* (AMES & C. SCHWEINF.) SZLACH., *Fragm. Flor. Geobot., Suppl.* 3: 129 (1995).

Type: Malaysia, North Borneo, Sabah, Mount Kinabalu, Kiau, 11.1915., J. Clemens 86 [holotype: AMES-101146!].

Pseudoliparis orbicularis MARG. & SZLACH., *Pol. Bot. J.* 46(1): 39-42 (2001).

Type: Solomon Islands, Rendova track from Ughele village to Rendova Peak, 8°27,7'S, 157°21,3'E, 11.1987., B.A. Lewis 18 [holotype: K! only left specimens, isotype: K spir. coll. 57263!].

Pseudoliparis ramosii (AMES) MARG. & SZLACH., Ann. Bot. Fen. 40 (1): 63 (2003)

≡ *Malaxis ramosii* AMES, Philip. J. Sc., Bot. 6 (1): 45 (1911)

≡ *Crepidium ramosii* (AMES) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 131 (1995).

Type: Philippines, Luzon, Rizal Prov., Bosobosa, 08.1907, M. Ramos s.n., BSN 4567 [holotype: AMES 101163!, isotype: PNH].

Note: The taxon sometimes by similarity of epithet is mistaken with *Crepidium ramosum* (J.J.SM.) MARG. & SZLACH., Pol. Bot. J. 46(1): 67–69 (2001).

Pseudoliparis rhinoceros (J.J.SM.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis rhinoceros* J.J.SM., Bull. Inst. Bot. Buitenz. 22: 21. 1909

≡ *Malaxis rhinoceros* (J.J.SM.) AMES & C. SCHWEINF., Orchidaceae 5: 68. 1915.

Types: Indonesia, New Guinea, South from Geluksheuvel, Exp. Lorentz 1907, Djiedja 385, Cult. in Bog. Hort. Bot. s.n./314 [holotype: BO drawing!, isotype: L 910 154-122 / 0063798!].

Pseudoliparis schumanniana (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis schumanniana* SCHLTR., Nachtr. Fl. Deutsch. Schutzgeb.: 101 (1905)

≡ *Malaxis schumanniana* (SCHLTR.) HUNT, Kew Bull. 24: 84 (1970)

≡ *Crepidium schumannianum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 131 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Bismarck Mountains Range (Madang Distr.), 01.1902, R. Schlechter 14058 [holotype: B♣].

Pseudoliparis seleniglossa (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis seleniglossa* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 115. (1914)

≡ *Malaxis seleniglossa* (SCHLTR.) L.O. WILLIAMS, Williams, Bot. Mus. Leaflet. Harvard Univ. 12: 156 (1946)

≡ *Crepidium seleniglossum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 132 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Finisterre Range (Madang Distr.), 07.1908, R. Schlechter 18062 [holotype: B♣].

Pseudoliparis stenophylla (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis stenophylla* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 119. (1914)

Annot.: not *Malaxis stenophylla* HOLTUM, Gard. Bull. Sing. 11: 283 (1947) = *Crepidium davaense* (AMES) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 126 (1995).

≡ *Crepidium stenophyllum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 132 (1995).

Types: Papua New Guinea, Kaiser-Wilhelms-Land, Djamu River (Sepik Distr.), 04.1909, R. Schlechter 17564 [syntype: B♣], near Wakeak River (Sepik Distr.), R. Schlechter 19048 [syntype: B♣].

Pseudoliparis stenophylla (SCHLTR.) SZLACH. & MARG. var. ***crispatula*** (SCHLTR.) MARG., **comb.n.**

Basionym: *Microstylis stenophylla* SCHLTR. var. *crispatula* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 119. (1914).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Torricelli Range (Sepik Distr.), 09.1909, R. Schlechter 20025 [holotype: B♣].

Note: Despite of lacking holotype the taxon can be clearly assigned based on the precise description in the protologue.

Pseudoliparis torricellensis (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis torricellensis* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 114–115. (1914)

≡ *Malaxis torricellensis* (SCHLTR.) HUNT, Kew Bull. 24: 85 (1970)

≡ *Crepidium torricellense* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 132 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Torricelli Range (Sepik Distr.), 09.1909, R. Schlechter 20043 [holotype: B♣].

Pseudoliparis tubulosa (J.J.SM.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis tubulosa* J.J.SM., Bull. Dep. Agr. Ind. Neerl. 5: 1 (1907)

≡ *Malaxis tubulosa* (J.J.SM.) AMES & C. SCHWEINF., Orchidaceae 5: 68 (1915)

≡ *Crepidium tubulosum* (J.J.SM.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 133 (1995).

Type: Indonesia, New Guinea, Sinagai Mountain, Exp. Wichmann, 1903, Djiedja 133, Cult. in Bog. Hort. Bot. s.n. [holotype: BO].

Pseudoliparis umbonata (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis umbonata* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 113. (1914)

≡ *Malaxis umbonata* (SCHLTR.) HUNT, Kew Bull. 24: 85 (1970)

≡ *Crepidium umbonatum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 133 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Bismarck Mountain Range (Madang Distr.), near Kenejia Base, 11.1908, R. Schlechter 18631 [holotype: B♣].

Pseudoliparis uncatata (AMES) MARG. & SZLACH., Ann. Bot. Fen. 40(1): 63–66 (2003)

≡ *Malaxis uncatata* AMES, Philip. J. Sc., Bot. 6 (1): 46 (1911)

≡ *Crepidium uncatum* (AMES) CLEM. & JONES, Lasianthera 1: 41 (1996).

Types: Philippines, Luzon Island, Laguna-Tayabas Prov., Paete Piapi, 03.1908., H.M. Curran s.n. FBN 9952 [holotype: AMES 101175!, isotype: AMES 101176! icone].

Pseudoliparis undulata (SCHLTR.) SZLACH. & MARG., Adansonia, Ser. 3, 21 (2): 277 (1999)

≡ *Microstylis undulata* SCHLTR., Rep. Spec. Nov. Reg. Veg. Beih. 1 (1911): 113. (1914)

≡ *Malaxis undulata* (SCHLTR.) HUNT, Kew Bull. 24: 85 (1970)

≡ *Crepidium undulatum* (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 133 (1995).

Type: Papua New Guinea, Kaiser-Wilhelms-Land, Kani Mountain Range (Madang Distr.), near Kenejia Base, 10.1907, R. Schlechter 16631 [lectotype (MARGONSKA 2005: 288): L 930 262-17 / 0063820!, isotypes: B♣, AMES 101769!, BO].

Index of referable names:

- Crepidium* subgenus *Pseudoliparis* ≡ ***Pseudoliparis***
Crepidium arietinum ≡ ***Pseudoliparis arietina***
Crepidium balabacenses ≡ ***Pseudoliparis balabacensis***
Crepidium bataanense ≡ ***Pseudoliparis bataanensis***
Crepidium brachycaulos ≡ ***Pseudoliparis brachycaulos***
Crepidium breviscapum ≡ ***Pseudoliparis breviscapa***
Crepidium curvatulum ≡ ***Pseudoliparis curvatula***
Crepidium diploceras ≡ ***Pseudoliparis diploceras***
Crepidium epiphyticum ≡ ***Pseudoliparis epiphytica***
Crepidium heliophobum ≡ ***Pseudoliparis heliophoba***
Crepidium incurvum ≡ ***Pseudoliparis incurva***
Crepidium inexpectatum ≡ ***Pseudoliparis inexpectata***
Crepidium laevis ≡ ***Pseudoliparis laevis***
Crepidium latipetalum ≡ ***Pseudoliparis latipetala***
Crepidium maboroense ≡ ***Pseudoliparis maboroensis***
Crepidium macrotis ≡ ***Pseudoliparis macrotis***
Crepidium microhybos ≡ ***Pseudoliparis microhybos***
Crepidium multiflorum ≡ ***Pseudoliparis multiflora***
Crepidium ramosii ≡ ***Pseudoliparis ramosii***
Crepidium rhinoceros ≡ ***Pseudoliparis rhinoceros***
Crepidium schumannianum ≡ ***Pseudoliparis schumanniana***
Crepidium seleniglossum ≡ ***Pseudoliparis seleniglossa***
Crepidium stenophyllum ≡ ***Pseudoliparis stenophylla***
Crepidium torricellense ≡ ***Pseudoliparis torricellensis***
Crepidium tubulosum ≡ ***Pseudoliparis tubulosa***
Crepidium umbonatum ≡ ***Pseudoliparis umbonata***
Crepidium uncatum ≡ ***Pseudoliparis uncata***
Crepidium undulatum ≡ ***Pseudoliparis undulata***
Liparis macrotis ≡ ***Pseudoliparis macrotis***
Malaxis arietina ≡ ***Pseudoliparis arietina***
Malaxis bataanensis ≡ ***Pseudoliparis bataanensis***
Malaxis brachycaulos ≡ ***Pseudoliparis brachycaulos***
Malaxis breviscapa ≡ ***Pseudoliparis breviscapa***
Malaxis curvatula ≡ ***Pseudoliparis curvatula***
Malaxis diploceras ≡ ***Pseudoliparis diploceras***
Malaxis heliophoba ≡ ***Pseudoliparis heliophoba***
Malaxis incurva ≡ ***Pseudoliparis incurva***
Malaxis laevis ≡ ***Pseudoliparis laevis***
Malaxis latipetala ≡ ***Pseudoliparis latipetala***
Malaxis maboroensis ≡ ***Pseudoliparis maboroensis***
Malaxis macrotis ≡ ***Pseudoliparis macrotis***
Malaxis microhybos ≡ ***Pseudoliparis microhybos***
Malaxis multiflora ≡ ***Pseudoliparis multiflora***
Malaxis ramosii ≡ ***Pseudoliparis ramosii***
Malaxis pseudoliparis ≡ ***Pseudoliparis epiphytica***
Malaxis rhinoceros ≡ ***Pseudoliparis rhinoceros***
Malaxis schumanniana ≡ ***Pseudoliparis schumanniana***
Malaxis seleniglossa ≡ ***Pseudoliparis seleniglossa***
Malaxis torricellensis ≡ ***Pseudoliparis torricellensis***
Malaxis tubulosa ≡ ***Pseudoliparis tubulosa***
Malaxis umbonata ≡ ***Pseudoliparis umbonata***
Malaxis uncata ≡ ***Pseudoliparis uncata***
Malaxis undulata ≡ ***Pseudoliparis undulata***
Malaxis sect. *Pseudoliparis* ≡ ***Pseudoliparis***

- Microstylis brachycaulos* ≡ ***Pseudoliparis brachycaulos***
Microstylis breviscapa ≡ ***Pseudoliparis breviscapa***
Microstylis curvatula ≡ ***Pseudoliparis curvatula***
Microstylis diploceras ≡ ***Pseudoliparis diploceras***
Microstylis epiphytica ≡ ***Pseudoliparis epiphytica***
Microstylis heliophoba ≡ ***Pseudoliparis heliophoba***
Microstylis incurva ≡ ***Pseudoliparis incurva***
Microstylis inexpectata ≡ ***Pseudoliparis inexpectata***
Microstylis laevis ≡ ***Pseudoliparis laevis***
Microstylis latipetala ≡ ***Pseudoliparis latipetala***
Microstylis maboroensis ≡ ***Pseudoliparis maboroensis***
Microstylis macrotis ≡ ***Pseudoliparis macrotis***
Microstylis microhybos ≡ ***Pseudoliparis microhybos***
Microstylis rhinoceros ≡ ***Pseudoliparis rhinoceros***
Microstylis schumanniana ≡ ***Pseudoliparis schumanniana***
Microstylis seleniglossa ≡ ***Pseudoliparis seleniglossa***
Microstylis stenophylla ≡ ***Pseudoliparis stenophylla***
Microstylis stenophylla var. *crispatula* ≡ ***Pseudoliparis stenophylla* var. *crispatula***
Microstylis torricellensis ≡ ***Pseudoliparis torricellensis***
Microstylis tubulosa ≡ ***Pseudoliparis tubulosa***
Microstylis umbonata ≡ ***Pseudoliparis umbonata***
Microstylis undulata ≡ ***Pseudoliparis undulata***
Microstylis sect. *Pseudo-Liparis* ≡ ***Pseudoliparis***

Acknowledgments

I am especially grateful to Dr. G. Thijsse, the Curator of L, also the Curators of AMES, B, BM, BISH, BO, C (C-GS), FI, G, HBG, K, SING, US, WU and W (W-R), Z for the loan of herbarium specimens and/or their hospitality during my personal visits. I am obliged to the keepers of all visited scientific libraries, as well. Special thanks for Mrs. M.G. Kortylewska-Margońska and Mr. M. Margoński for help during my scientific works. The studies were conducted also with use of the database Archivum Orchidaliium. This article was prepared thanks to Polish Ministry of Science and Higher Education grant No. N304 029 32/1584.

References

- FINET A., 1907: Orchidees nouvelles ou peu connues 1. – Bull. Soc. Bot. France 54: 531–537.
 MARGOŃSKA H.B., 2003a: Materials towards a revision of the genus *Pseudoliparis* FINET (Orchidaceae, Malaxidinae) – part 1. – Ann. Bot. Fen. 40(1): 63–66.
 MARGOŃSKA H.B., 2003b: Materials towards the revision of the genus *Pseudoliparis* FINET (Orchidaceae, Malaxidinae) – part 2. section *Oistochilus*. – Ann. Bot. Fen. 40(4): 357–372.
 MARGOŃSKA H.B. 2005: Materials towards the revision of the genus *Pseudoliparis* FINET (Orchidaceae, Malaxidinae) – part 3. section *Pseudoliparis*. – Ann. Bot. Fen. 42: 267–291.
 MARGOŃSKA H.B., 2008: *Malaxidinae index nominalis* – genus *Pseudoliparis* FINET emend. SZLACH. & MARG. Sect. *Oistochilos* (Orchidales, Orchidaceae). – Ann. Nat. Mus. Wien., B, 109: 197–202.
 MARGOŃSKA H.B., (in prep.): Materials towards the revision of the genus *Pseudoliparis* FINET (Orchidaceae, Malaxidinae) – part 4. section *Pseudoliparis*.