Biodiv. Res. Conserv. 13: 9-12, 2009

10.2478/v10119-009-0002-6

BRC
www.brc.amu.edu.pl

A new species of *Stichorkis* (Orchidaceae, Malaxidinae) from Sarawak in Malaysia

Hanna B. Margońska

Department of Taxonomy and Nature Conservation, Gdańsk University, Al. Legionów 9, 80-441 Gdańsk, Poland, e-mail: dokhbm@univ.gda.pl

Received 2 June 2009, accepted 17 September 2009

Abstract: A new species *Stichorkis mieczyslawiana* is described and illustrated. A brief explanation of the status and characteristics of genus *Stichorkis* are given.

Key words: *Liparis*, Malaxidinae, Orchidaceae, Sarawak, *Stichorkis*, taxonomy

1. Introduction

Representatives of a subtribe Malaxidinae Benth. & Hook.f., especially the genus *Liparis* L. C. Rich. and its related genera e.g. *Stichorkis* Thouars, as well as *Platystyliparis* Marg. and *Disticholiparis* Marg. & Szlach., are not very variable regarding their flower arrangement and the elongate generative structures, but they are simultaneously characterized by a great diversity in the structure of their vegetative parts, especially leaves and pseudobulbs.

The genus *Liparis* contains plants with racemose inflorescences, erect bracts, flowers being resupinate, lips 2-parted (forming the hypochile and the epichile), the gynostemium always elongate, slender, arcuately curved upon the lip surface, its column being at least 3 and as long as the anther, etc.

In turn, the mostly epiphytic genus *Stichorkis*, described by Aubert du Petit-Thouars (1809, explanation of taxonomy and nomenclature of the genus, Szlachetko *et al*. 2008), comprises over two hundred species. Tropical and subtropical areas of SE Asia, especially from the Greater and Lesser Sunda Archipelagos to New Guinea, are richest in these species. The most characteristic features of the *Stichorkis* representatives are: erect, robust, 1-2(3) noded pseudobulbs, 1-2(3), conduplicate, non-membranaceous leaves, well separated from their bases by transversal scars (after a time falling off from the pseudobulb along the scar), usually well-developed, relatively big flower lips, lips being callus-shaped, middle-sized and often well-developed.

2. Materials and methods

For the research I studied taxonomic materials: herbarium and preserved in liquid collections, alive plants, iconography, bibliography etc. The classic taxonomy method with obligatory referring to the original taxonomic materials like type-specimens and protologues, have been used. The Herbaria acronyms are adopted from Index Herbariorum (Holmgren *et al*. 1990). The taxa authors names abbreviations are followed by Brummitt & Powell (1992).

3. Results

Comber (2001) proposed a new species *Liparis terrestris* (holotype K!) for terrestrial, 2-leaved plants. He suggested similarity of his new species to *Liparis bootanensis* (*Stichorkis bootanensis* (Griff.) Marg., Szlach. & Kułak). Unfortunately, Comber *Liparis terrestris* is conspecific with older species *Liparis viridicallus* (*Stichorkis viridicallus* (Holttum) Marg., Szlach. & Kułak, holotype K!), described by Holttum (1953).

Among Malaxidinae herbarium specimens, especially at E, BM and K, I found several plants preliminarily called *Liparis terrestris*, but with different flowers and especially the habit.

The plants are without any doubt are representatives of the genus *Stichorkis* and should be recognized as a new species.

Stichorkis mieczyslawiana Marg. sp. nov. (section *Platyglossum*) Fig. 1.

Rhizoma elongatum, prostratumque. Pseudotuberibus distinctis, bifoliatis. Foliis late, ovalibus vel ellipticus. Floribus magnis, Stichorkis plantaginea similes. Labellum magnum, cum epichilio bene fabricato, minimum 3/4 longitudinis totam labellam constans; epichilium latum ellipticum.

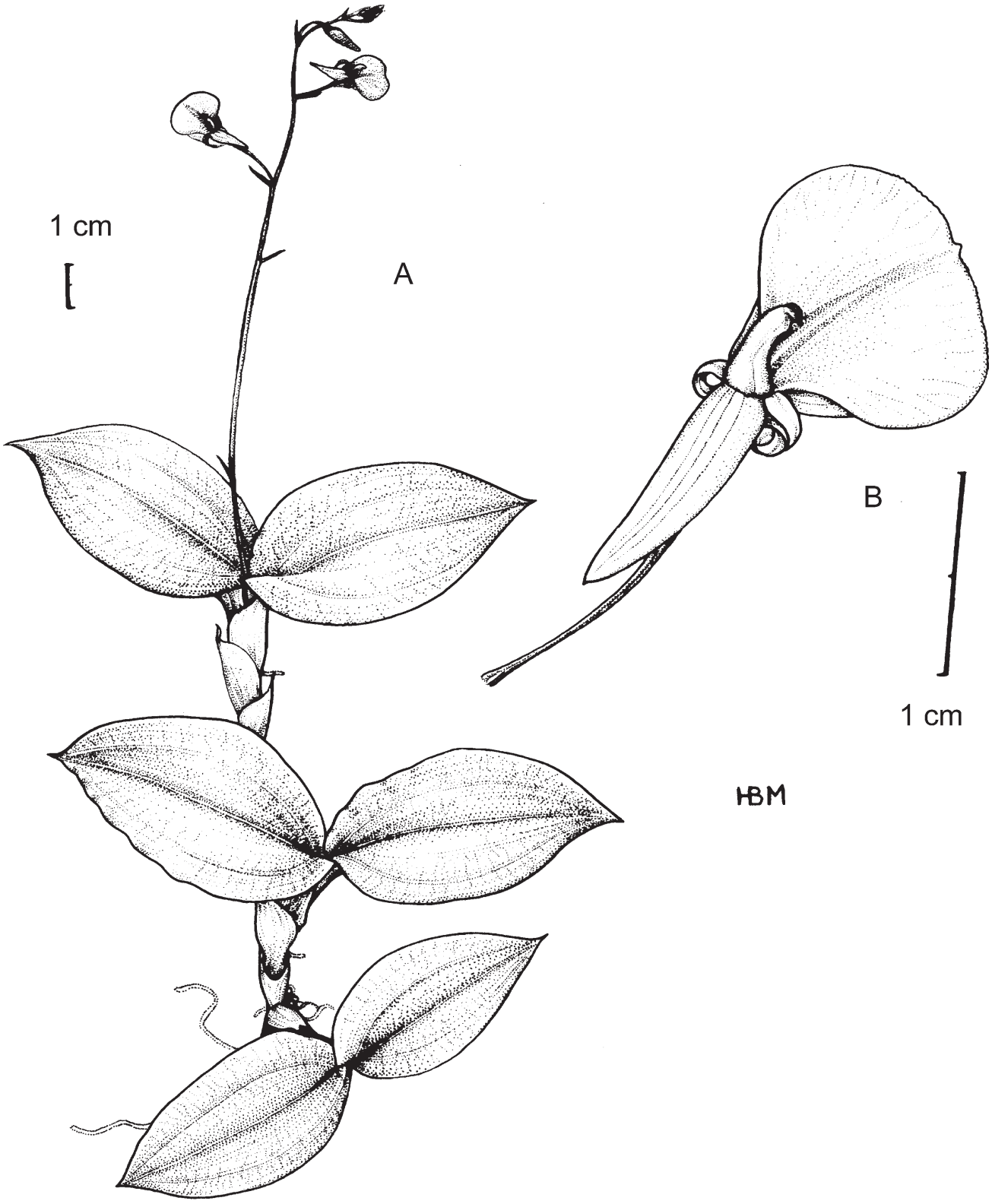

Fig. 1. *Stichorkis mieczyslawiana* Marg.
Explanations: A – habit, B – flower (drawing from HOLO-E00082280)

HOLOTYPE: Malaysia, Borneo, Sarawak, 3rd Division, SE end Hose Mountains, below Bukit Nibong, 2°6'N 113°42'E, 9.08.1967., *B.L. Burtt and A.M. Martin B4867* (E00082280).

The plants are 15-25 cm high. Rhizomes elongated, creeping, with rooting nodes covered by tubular scales. Pseudobulbs up to ca. 2 cm long and 1 cm in diameter, 2-noded, oblong ovoid, 2-leaved, distinctly dispersed from each other on rhizomes about several to around a dozen cm, completely covered by leaf sheaths and basal scales. Leaves arise from the apical part of the pseudobulb and are widely, flatly spread over the ground; leaf-sheaths are tubular, loose, green; leaf-petioles are abbreviated, distinctly separated from leaf-sheaths by scars, green; leaf blades 6-9 cm long and 3-5 cm wide, rather thicker, gently ovate to elliptic, apically attenuate, acuminate at the top, basally round, green, paler and brighter beneath. Inflorescences apical, distinctly elongated (12-22 cm high), with 5-10-flowered, loose racemes. Floral bracts up to 1 cm long, erect, lanceolate, attenuate and acuminate at the apices. Sterile bracts single, 0.6-0.8 cm long, similar in shape and situation to floral bracts. Flowers resupinate, large in the genus (2-2.4 cm in diameter), apricot-brown, with light green sepals. Sepals and petals typical of the genus, widely spread to deflexed with age. Dorsal sepals 0.9-1 cm long, ca. 0.3 cm wide, oblong to oblong ovate, obtuse to subacute at the apex, round at the base, 3-nerved. Lateral sepals 0.7-0.8 cm long, 0.3-0.35 cm wide, oblique, oblong to oblong ovate, obtuse to subacute at the apex, subcordate at the base, 3-nerved. Petals ca. 0.9 cm long, 0.1-0.14 cm wide, oblong to narrowly lanceolate, subacute at the apices, round at the bases, 1-nerved. Lip large, 1.1-1.2 cm long, 1.2-1.4 cm wide, with central thickening oblanceolate, lanceolate to oblong, dark and intensely coloured, shining (nectar mimicing), reaching nearly to the top of the lamina; hypochile oblong, gently canaliculate, with binate basal calli and small basal auricles; epichile flat, transversally elliptic, apically with small apiculate tips within only gentle indentations, margins delicately and minutely serrulate. The gynostemium typical of the genus, ca. 0.5 cm long, arcuately curved upon the lip surface, basally robust; staminodes relatively small, triangular, erect; anthers relatively small, dorsiventrally flattened, at most slightly longer than broader; connective forming a roof over the locules, often gently elongate, thin, subacute.

ETYMOLOGY: Dedicated to Mr. e. Mieczysław Margoński, for his support and assistance during my researches.

DISTRIBUTION: The species is known from the type specimens and several another collections from Sarawak Matang Mount area.

REPRESENTATIVE SPECIMENS SEEN: Malaysia, Borneo, Sarawak, Matang Mount: 7.12.1913., *Moulton's native collectors 267* (BM000088968!); 02.1915., *H.N. Ridley s.n.* (K!); 06.1915., *H.N. Ridley s.n.* (BM 000088951!, K!).

NOTES: Amongst other *Stichorkis* species, *Stichorkis mieczyslawiana* can be easily recognized by its characteristic habit of plants and rhizomes, shape of both leaves, large flowers, shape and size of flower lips.

Stichorkis mieczyslawiana is easily distinguishable from Stichorkis plantaginea (Lindl.) Marg., Szlach. & Kułak and *Stichorkis viridicallus* (Holltum) Marg., Szlach. & Kułak by e.g. elongate rhizomes, shoots being distinctly dispersed from each other on the rhizome; 2, shorter, ovate to elliptic, widely spread leaves; epichile large, transversally broadly elliptic, with small tips inside distal indentations.

Acknowledgements. I am grateful to Dr. J. J. Wood, curator of K orchid herbarium for his valuable opinions and hospitality, the curator of E, all his very kind staff, especially Ms. Adele Smith and the curator of BM for their hospitality and assistance during my personal visits. I am obliged to the keeper of the visited scientific library at the Edinburgh Royal Botanic Garden, Botanical and General Library of Natural History Museum in London as well. This article was prepared thanks to the Polish Ministry of Science and Higher Education grant No. N304 029 32/1584. The studies were conducted also using a digital database – *Archivum Orchidalium*.

References

AUBERT DU PETIT-THOUARS L. M. 1809. Extrait de trois Memoires lus a la premiere classe de l'Institut, sur l'histoire des plantes orchidees des iles australes d'Afrique. Nouv. Bull. Sci. Soc. Philom. Paris 1: 314-319.

BRUMMITT R. K. & POWELL C. E. 1992. Authors of Plant Names. Royal Botanic Gardens, Kew. 732. pp. (updated version available at www.ipni.org).

COMBER J. B. 2001. Orchids of Sumatra. 1026 pp. The Royal Botanic Gardens, Kew.

HOLMGREN P. K., HOLMGREN N. H. & BARNETT L. C. 1990. Index Herbariorum. Part. 1. The Herbaria of the World. 693 pp. New York Bot. Gard., New York.

HOLTTUM R. E. 1953. Three New Orchids from Malaya. Gard. Bull. Sing. 14: 4.

SZLACHETKO D. L., MARGOŃSKA H. B. & KUŁAK M. 2008. Nomenclatural changes in *Liparis*- complex (Malaxidinae, Epidendroideae). Acta Soc. Bot. Pol. 77(1): 35-40.