**Pennilabium yunnanense** a new species of Orchidaceae from Yunnan China

CHEN Sing-Chi  LUN Yi-Bo

Laboratory of Systematic and Evolutionary Botany, Institute of Botany, the Chinese Academy of Sciences, Beijing 100093, China

**Abstract**  *Pennilabium yunnanense* S. C. Chen & Y. B. Luo a new species of Orchidaceae is described and illustrated. It is subsimilar to *P. acuminatum* Ridley Holttum from which it differs by having smaller flowers ca. 3 cm across white petals spotted with dark purple adaxially and fimbriate-tipped side-lobes of the lip.

**Key words**  *Pennilabium* *Pennilabium yunnanense* S. C. Chen & Y. B. Luo Orchidaceae new species Yunnan China.

*Pennilabium* J. J. Smith is a small genus of some ten species ranging from NE India to SE Asia. The first report of this genus for the Chinese flora was based on a specimen collected from southern Yunnan which was identified as *P. procumbens* A. S. Rao & Joseph Tsi & Chen 1995. In Flora Reipublicae Popularis Sinicae the same name was used but with a critical note “The specimen has narrower sepals and petals gradually attenuating toward the apex and entire-margined petals. It seems to be different from *P. procumbens*. A further investigation is needed.” Tsi 1999.

Recently a morphological comparison was made of this entity with *P. procumbens* and its allies during the compilation of the Flora of China. We found that the Chinese plant was rather similar to *P. acuminatum* Ridley Holttum of Malaysia than to *P. procumbens* a species distributed in NE India and Thailand. *P. acuminatum* has oblong-lanceolate petals with entire margins and a subcylindrical spur nearly as long as the side-lobes of the lip. These two features are also found in the Chinese entity. But the Malaysian species can be easily distinguished from the Chinese plant by having much larger flowers ca. 5 cm across pure yellow petals and entire-tipped side-lobes of the lip. *P. procumbens* is characterised by its obvate and erose-margined petals and more or less clavate spur conspicuously longer than the side-lobes of the lip. By these features it is easily distinguishable from our plant. Thus we treat it as a new species.

**Pennilabium yunnanense** S. C. Chen & Y. B. Luo sp. nov. Fig. 1


Species nova *Pennilabio acuminat* Ridley Holttums subsimilis sed differt floribus minoribus circ. 3 cm in diam. petalis albis atropurpureo-punctatis praesertim in dimidio inferiore lobis lateralibus labelli fimbriatis ad apicem.

Planta epiphytica. Caulis circ. 1 cm longus in vaginis foliorum omnino obtectus. Folia 3 – 4 oblonga plus minusve carnosas 4 – 6 cm longas 1.3 – 1.5 cm latae apice acuta et inaequaliter bilobatas basi articulata et vaginata. Inflorescentia racemosa prope basin cauli exortentis arcuato-patens circ. 4 cm longa vel 3-flora rhachi brevi complanata circ. 5 mm longa bracteae distichae ovato-triangulatae circ. 1 mm longae pedicellus cum ovario 10 – 11 mm longus.
Fig. 1. *Penilabium yunnanense* S. C. Chen & Y. B. Luo. A flowering plant B flower C pollinarium. Drawn by Y. B. Sun from Y. Z. Ma 288.

glaber flores albi petalis atropurpureo-punctatis praesertim in dimidio inferiore sepala similia oblongo-lanceolata circ. 1.7 cm longa 4 mm lata acuminata eis lateribus plus minusve falcatis petala oblongo-lanceolata circ. 1.6 cm longa 3 mm lata acuminata integra labellum 3-lobum basi calcaratum lobis lateribus subspathulato-flabellatis circ. 7 mm longis 4 mm latis breviter fimbriatis ad marginem apicalem lobo intermedio subligulato circ. 4 mm longo 2 mm lato acuto integro calcari subcylindrico circ. 6 mm longo 1.5 mm in diam. apice rotundato intus non appendiculato columna circ. 2 mm longa absque pede pagina antica stignate magnì fere omnino obsesa operculum in apicem triangulatum plus minusve angustatum stipes inferior linearis sursum dilatatus circ. 0.8 mm longus viscidium crassum ellipticum circ. 0.4 mm longum.

**China.** Yunnan Jinghong on a tea tree in the tea plantation by the
roadside of Xiao La Highway, about 36 km from Jinghong County, 1986-09-03 Y. Z. Ma 288 holotype PE.

Epiphytic plant. Stem ca. 1 cm long, entirely covered by leaf sheaths. Leaves 3–4 oblong, more or less fleshy, 4–6 cm long, 1.3–1.5 cm wide, apex acute and unequally bilobed base jointed and sheathing. Inflorescence a raceme arising from near the base of the stem, arching-spreading, 4 cm long, with 2–3 flowers, rachis short, flattened, 5 mm long, bracts distinct, ovate-triangular, 1 mm long, pedicel and ovary 10–11 mm long, glabrous, flowers white with dark purple spots on the petals especially in lower half, sepal similar oblong-lanceolate, ca. 1.7 cm long, 4 mm wide, acuminate, lateral sepals more or less falcate, petals oblong-lanceolate, 1.6 cm long, 3 mm wide, acuminate, entire lip 3-lobed, base spurred, side-lobes subpatulate, flabellate, 7 mm long, 4 mm wide, short-fimbriate along apical margin, mid-lobe subligulate, 4 mm long, 2 mm wide, apex acute, entire, spur subcylindrical, 6 mm long, 1.5 mm in diam. at apex rounded inside unornamented column, ca. 2 mm long, footless, stigma large, nearly covering the whole front surface of the column, operculum slightly narrowed into a triangular apex, stipe linear in lower part and dilated upward, ca. 0.8 mm long, viscidium thick, elliptic, 0.4 mm long. Fl. September.

This species is related to *Pennilabium acuminatum* Ridley Holttum and from which it differs by having smaller flowers ca. 3 cm across, white petals spotted with dark purple especially in lower half and fimbriate-tipped side-lobes of the lip.

**Habitat** On a tea tree in the tea plantation.

**Distribution** Known only from the type locality South Yunnan, Jinghong County.

The plant was collected from Jinghong in the Summer of 1985 and immediately brought back and cultivated in the Tropical Botanical Garden of Xishuangbanna, the Chinese Academy of Sciences. Based on this plant the new species is described here.

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**References**
