

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

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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. proboscideum* 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. proboscideum*. A further investigation is needed." (Tsi, 1999).

Recently a morphological comparison was made of this entity with *P. proboscideum* 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. proboscideum*, 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. proboscideum* is characterised by its obovate 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.

Pennilabium proboscideum auct. non A. S. Rao & Joseph: Z. H. Tsi & S. C. Chen in Acta Phytotax. Sin. 33:295. 1995; Z. H. Tsi in Fl. Reip. Pop. Sin. 19:435. 1999.

Species nova *Pennilabio acuminato* (Ridley) Holttum 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, vaginis foliorum omnino obtectus. Folia 3–4, oblonga, plus minusve carnosae, 4–6 cm longa, 1.3–1.5 cm lata, apice acuta et inaequaliter bilobata, basi articulata et vaginata. Inflorescentia racemosa, prope basin cauli exorienta, arcuato-patens, circ. 4 cm longa, 2- vel 3-flora, rhachi brevi, complanata, circ. 5 mm longa; bractae distichae, ovato-triangularae, circ. 1 mm longae; pedicellus cum ovario 10–11 mm longus,

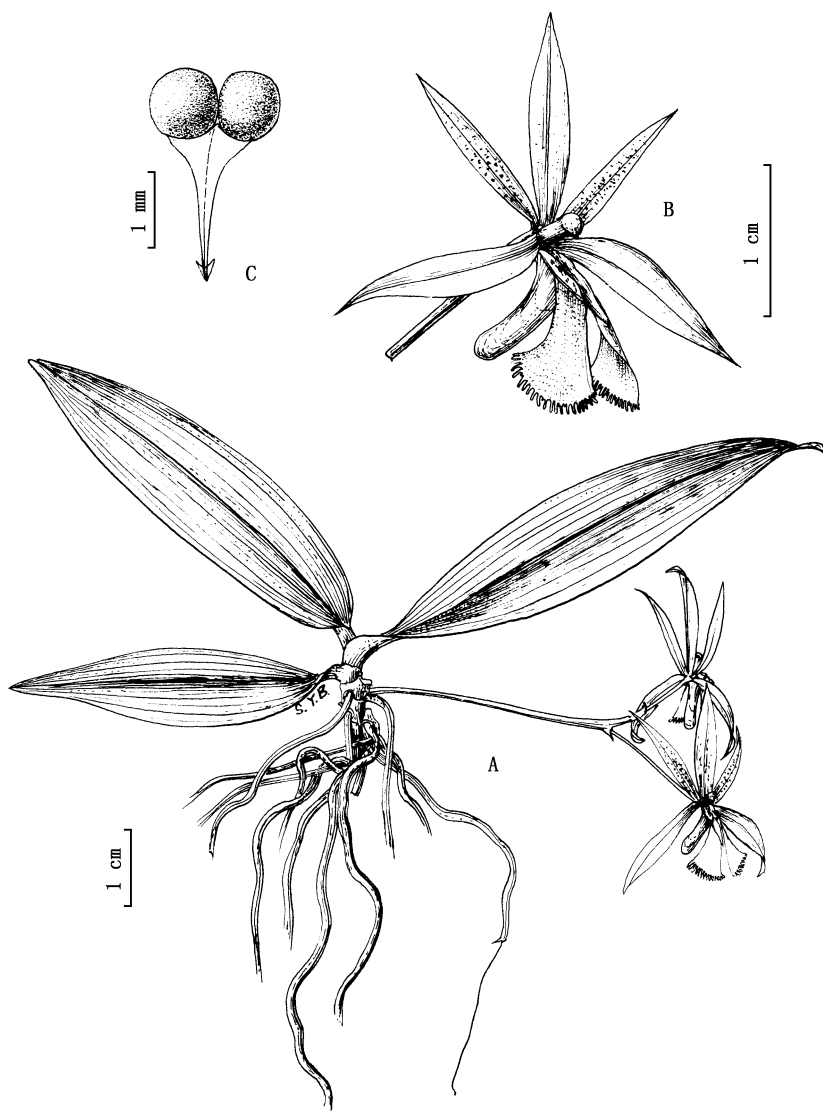


Fig. 1. *Pennilabium yunnanense* S. C. Chen & Y. B. Luo. A, flowering plant; B, flower; C, pollinarium. Drawn by Y. B. Sun from Y. Z. Ma 288.

glaber; flores albi, petalis atropurpureo-punctatis praesertim in dimidio inferiore; sepala similaria, oblongo-lanceolata, circ. 1.7 cm longa, 4 mm lata, acuminata, eis lateralibus plus minusve falcatis; petala oblongo-lanceolata, circ. 1.6 cm longa, 3 mm lata, acuminata, integra; labellum 3-lobum, basi calcaratum, lobis lateralibus 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, calcar subcylindrico circ. 6 mm longo 1.5 mm in diam. apice rotundato intus non appendiculato; columna circ. 2 mm longa, absque pede, pagina antica stigmatibus magno fere omnino obsessa; 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 (云南): Jinghong (景洪), 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 , ca. 4 cm long , with 2 – 3 flowers ; rachis short , flattened , ca. 5 mm long ; bracts distichous , ovate-triangular , ca. 1 mm long ; pedicel and ovary 10 – 11 mm long , glabrous ; flowers white , with dark purple spots on the petals especially in lower half ; sepals similar , oblong-lanceolate , ca. 1.7 cm long , 4 mm wide , acuminate ; lateral sepals more or less falcate ; petals oblong-lanceolate , ca. 1.6 cm long , 3 mm wide , acuminate , entire ; lip 3-lobed , base spurred ; side-lobes subspatulate-flabellate , ca. 7 mm long , 4 mm wide , short-fimbriate along apical margin ; mid-lobe subligulate , ca. 4 mm long , 2 mm wide , apex acute , entire ; spur subcylindrical , ca. 6 mm long , 1.5 mm in diam. , 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 , ca. 0.4 mm long. Fl. September.

This species is related to *Pennilabium acuminatum* (Ridley) Holttum , 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

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中国兰科植物一新种——云南巾唇兰

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摘要 对中国兰科植物新种云南巾唇兰 *Pennilabium yunnanense* S. C. Chen & Y. B. Luo 作了描述和绘图。该新种与 *P. acuminatum* (Ridley) Holttum 较为接近 , 区别点在于具较小的花朵 , 直径仅 3 cm , 花瓣白色且上面有深紫色斑点 , 以及唇瓣侧裂片顶端有流苏。

关键词 巾唇兰属 ; 云南巾唇兰 ; 兰科 ; 新种 ; 云南 ; 中国