Ann. Bot. Fennici 39: 227–229 ISSN 0003-3847
Helsinki 8 October 2002

Pholidota niana (Orchidaceae), a new species from southeastern Yunnan, China

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Received 29 January 2002, accepted 30 May 2002

Liu, Y.-T., Li, R. & Long, C.-L. 2002: *Pholidota niana* (Orchidaceae), a new species from southeastern Yunnan, China. — *Ann. Bot. Fennici* 39: 227–229.

Pholidota niana Y.T.Liu, R.Li & C.L.Long, a new species of the Orchidaceae (Orchidoideae) from southeastern Yunnan Province, China, is described and illustrated. The differences and similarities between *P. niana* and the closely related *P. longipes* S.C.Chen & Z.H.Tsi are discussed.

Key words: Orchidaceae, *Pholidota niana*, taxonomy, Yunnan

Orchidaceae is a family of about 788 genera and 18 500 species (Mabberley 1997), or 700 genera and 20 000 species (Hou 1998), depending on taxonomic judgement. They are widely distributed in the tropical, subtropical and temperate regions. In China there are 171 genera and about 1247 species of orchids (Chen 1999).

Pholidota is comprised of about 30 species with a distribution area from tropical Asia to tropical Australia (Wu 1991). In China, *Pholidota* has 14 species recorded from the southwest, south, and east of continental China, as well as from Taiwan (Chen 1999).

During the winter of 2001, a botanical expedition was carried out in Xichou County, southeast Yunnan Province, to study the flora of limestone mountains. In this expedition, we found one species with morphological features that suggested it represented an undescribed taxon in the genus *Pholidota*. After a closer morphological study, literature researches (Hooker 1890, Chen 1983, 1999, Chen *et al*. 1998, 1999), and examination of numerous pertinent specimens (including those in PE and KUN), this was confirmed.

Pholidota niana Y.T.Liu, R.Li & C.L.Long, *sp. nova* (Fig. 1)

Herba affinis P. longipei, sed folio subsessili vel petiolo 4–8 mm, inflorescentia 7–17 floribus, sepalo 3 venis, labio maculis flavis differt.

Type: China. Yunnan Province, Wenshan Prefecture, Xichou County, Dongzongcao, alt. 1340 m, epiphytic on rocks in forests, 22.XII.2001 *Chen Yu 14119* (holotype KUN).

An epiphytic plant with a stout rhizome 5–8 mm thick. Pseudobulbs closely spaced, cylindric, slightly narrowed towards top, 8–11 cm long, 7–10 mm broad near base, channelled, 2-leaved at apex. Leaves narrowly elliptic-lanceolate,

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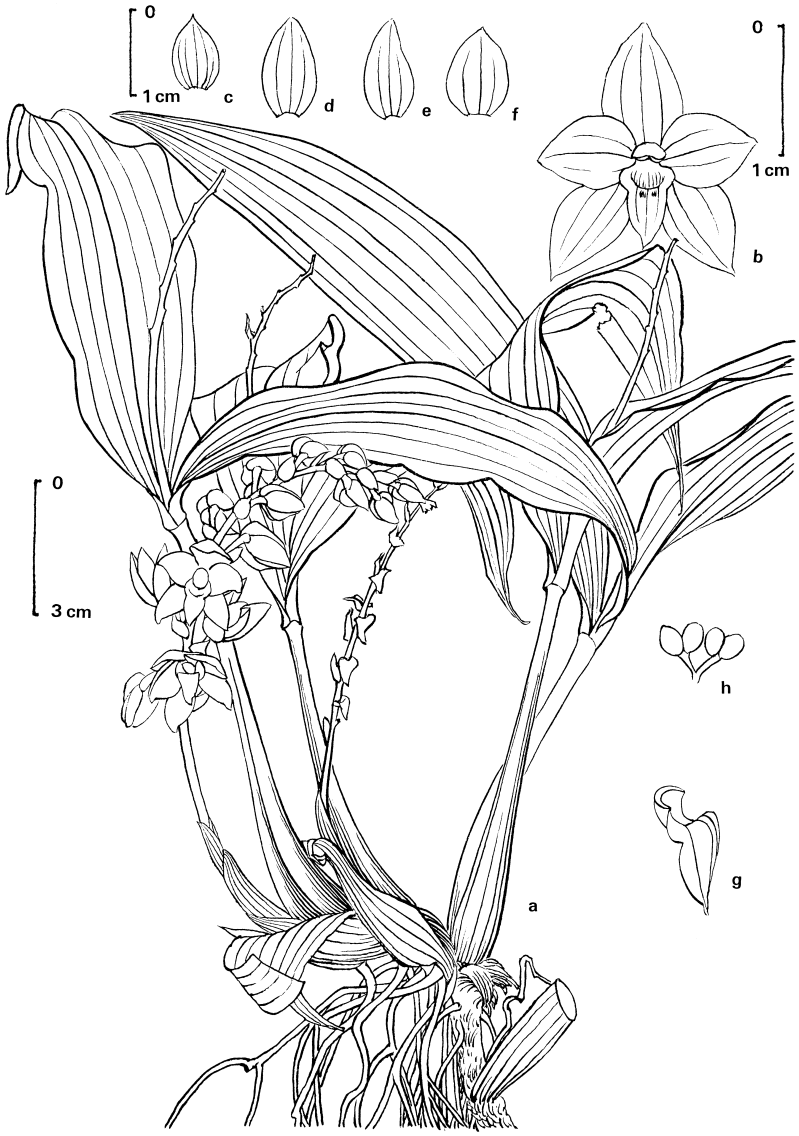

Fig. 1. *Pholidota niana* Y.T. Liu, R.Li & C.L.Long (from the holotype, drawn by Yi-Tao Liu.). — **a**: Plant with flowers and rhizome. — **b**: Flower. — **c**: Bract. — **d**: Dorsal sepal. — **e**: Lateral sepal. — **f**: Petal. — **g**: Lateral view of the lip. — **h**: Pollinia.

chartaceous, 8–16 cm long, 2–3.5 cm broad, long-acuminate at apex, many-veined, attenuate at base, subsessile or shortly petioled, with petiole 4–8 mm long. Scape arising from top of a young pseudobulb, at base with young leaves enclosed in sheaths, 6–15 cm long; raceme 7- to 17-flowered; bracts ovate, concave, 5–7 mm long, 4–5 mm broad, persistent; pedicel and ovary 8–10 mm long; flowers white, scented; dorsal sepal elliptic, 1.1–1.2 cm long, 5 mm broad, concave, cymbiform, dorsally carinate, with 3 veins, mucronate at apex; lateral sepals ovate-lanceolate, similar to dorsal sepal in size, acuminate at apex; petals broadly elliptic, slightly shorter than sepals, mucronate at apex, obscurely 3- to 5-veined; lip ca. 1 cm long, 4 mm broad, concave-saccate in basal half and with 5 veins inside; apical half subobovate with yellow spots inside, mucronate at apex; column broad, 3 mm long, winged along both sides; wing 1 mm

broad in upper half, surrounding clinandrium apically; pollinia 4, waxy, almost equal, in pairs, connected by viscid material; rostellum broadly ligulate, ca. 1 mm long, 2 mm broad. Flowering period December to January.

The specimen was collected from limestone mountains in Xichou County, southeastern Yunnan Province, between 23°21´–23°24´N and 104°41´–104°52´E. The limestone mountains form a nature reserve and have been well protected for a long time due to the rich biodiversity. Previous studies on the flora of limestone mountains in this area recorded 340 species of vascular plants belonging to 189 genera in 105 families (Liu *et al*. 1989). Vegetation in the mountains is *Machilus–Castanopsis* forest of the south-subtropical seasonal evergreen broad-leaved forest zone. The dominant species are mainly from Fagaceae, Lauraceae, Theaceae and Magnoliaceae (Wu 1980, 1987).

Pholidota niana is closely related to *P. longipes* S.C.Chen & Z.H.Tsi, differing mainly in having subsessile leaves or leaves with a short petiole 4–8 mm long, 7- to 17-flowered inflorescences, 3-veined sepals, and a yellow-spotted lip.

The new species is named after Su-bi Ni, a botanist and horticulturist at the Kunming Institute of Botany, Chinese Academy of Sciences, for her contributions to orchidology.

Acknowledgements

Prof. Heng Li, a Chinese botanist and orchid expert, critically reviewed the draft manuscript and provided constructive suggestions. Mr. Yu Chen collected the holotype of this new species in southeast Yunnan.

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