

Liparis cheniana (Malaxideae: Orchidaceae), a new species from Xizang, China

Xiao-Hua Jin

Herbarium (PE), Institute of Botany, Chinese Academy of Sciences, Nanxinchun 20, Beijing 100093, China

Received 19 Dec. 2008, revised version received 5 Feb. 2010, accepted 8 Feb. 2010

Jin, X. H. 2011: *Liparis cheniana* (Malaxideae: Orchidaceae), a new species from Xizang, China. — *Ann. Bot. Fennici* 48: 163–165.

Liparis cheniana X.H. Jin *sp. nova* (Orchidaceae), is described and illustrated from southwestern Xizang (Tibet), China. It is restricted to the alpine region of the Gaoligongshan Mountains at an elevation of about 3700 m. *Liparis cheniana* is similar to *L. rostrata* in having two calli at the base of the column, but differs from it by having a lanceolate and acuminate lip with a ridge ranging from the base to the tip.

The orchid genus *Liparis* consists of 150–350 species, concentrated in the tropics with a few species extending to the temperate and alpine regions (Seidenfaden 1976, 1992, Chen 1999, Comber 2001, Pearce & Cribb 2002, Pridgeon *et al.* 2005). *Liparis* differs from its allies by its resupinate flowers and the curved column.

Ridley (1886) revised the genus and recognized 110 species. Since then, many new species have been published. Recently, several small genera have been separated from *Liparis s.lato* and the taxonomy of the genus is very confused and inconsistent (e.g. Margońska & Szlachetko 2001, 2004, Pridgeon *et al.* 2005, Liu *et al.* 2008). In the absence of a robust phylogenetic analysis, *Liparis s. lato* is applied here.

There are about 53 species of *Liparis* in China, among which about 16 are endemic in the country (Chen 1999). During our fieldwork in the alpine region in northwestern Yunnan and southeastern Xizang, in 2008, a new species of *Liparis* described below was discovered.

***Liparis cheniana* X.H. Jin, *sp. nova* (Figs. 1–3)**

A specie proxima Liparide rostratae Rchb.f. lanceolato labio et crista e basi ad apicem differt.

TYPE: China. Xizang (Tibet), Chayu County, Ridong Village, 3700 m, in alpine grassland of Gaoligongshan Mts., 10.VII.2008 DLJ-ET (Dulongjiang River Expedition Team) 3470 (holotype PE).

ETYMOLOGY: The specific epithet honors Singchi Chen, who focuses his life on the taxonomy of Orchidaceae and Liliaceae in China.

Terrestrial. Pseudobulb ellipsoid or ovoid, 0.8–1 cm in diam. Plant 10–15 cm tall, with several membranous sheaths basally. Leaves 2, lamina elliptic-lanceolate, acute, 2.5–3 × 0.8–1.2 cm, base narrow into sheathed petiole. Inflorescence 8- to 15-flowered. Bracts ovate, 1–2 mm long. Flowers white flushed with pale purple veins; ovary and pedicel 0.7–1 cm long; dorsal sepal linear-lanceolate, erect, 0.7 × 0.15 cm,

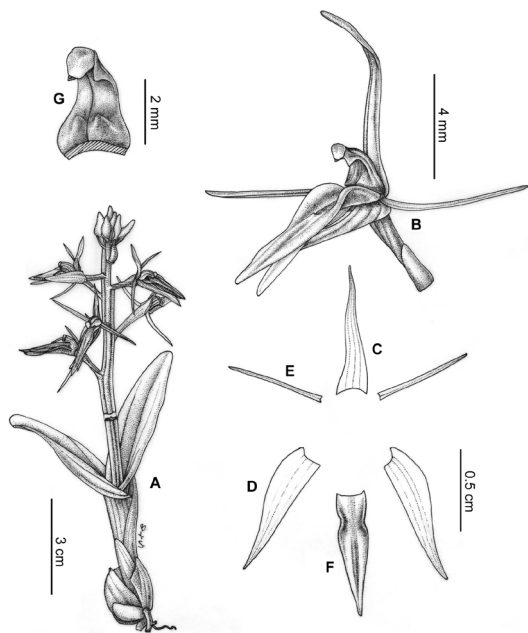


Fig. 1. *Liparis cheniana* (from the holotype, drawn by Sun Yingbao). — **A:** Plant. — **B:** Lateral view of flower. — **C:** Dorsal sepal. — **D:** Petal. — **E:** Lateral sepal. — **F:** Lip. — **G:** Column.



Fig. 3. Close-up of flowers of *Liparis cheniana* (photo by X. H. Jin).

3-veined; lateral sepals parallel under the lip, oblique, linear-lanceolate, 0.6×0.1 cm, 3-veined; petals linear, extending greatly, 0.6×0.05 cm, 1-veined; lip lanceolate, white, disc purple, acuminate, the margins of the basal part erect and thickened, a ridge ranging from the base to tip,



Fig. 2. Habitat of *Liparis cheniana* (photo by X. H. Jin).

0.7×0.2 cm. Column curved, pale pink, 0.3 cm long, adaxial side with a pair of triangular wings, base swollen with two conical calli. Pollinia four in two pairs, yellow; anther-cap elliptic, truncate in front.

Liparis cheniana is distinct but closely similar to *L. rostrata* by sharing the same column structure, i.e. a column with two conical calli at the base. However, *L. cheniana* is easily distinguished from *L. rostrata* by its lanceolate lip with a fleshy middle vein ranging from the base to the tip, and the fleshy margin of the basal part of the lip, whereas *L. rostrata* is characterized by a very broadly obcordate, yellow green and ecallose lip (Seidenfaden 1976, Chen 1999, Bose & Bhattacharjee 1999).

Liparis cheniana is known from only one site, with an area of occupancy estimated to be less than 10 km² and less than 500 individuals. Its habitat is greatly affected by stock raising.

Acknowledgements

I thank Hubert Kurzweil for his critical review and Sun Yingbao for the excellent drawings. I am indebted to the officials of Chinese Forest Bureau and Yunnan Forest Bureau for their kind help during the fieldwork. This research was supported by a grant from National Natural Science Foundation of China (30600037), a grant of Shanghai Forest and Garden Bureau (G069901) and the Knowledge Innovation Program of the Chinese Academy of Sciences (KSCX2-YW-Z-061).

References

- Bose, T. K. & Bhattacharjee, S. K. 1999: *Orchids of India*. — Naya Prokash, India.

- Chen, S. C. 1999: *Flora Reipublicae Popularis Sinicae*. — Science Press, Beijing. [In Chinese].
- Comber, J. B. 2001: *Orchids of Sumatra*. — The Royal Botanic Gardens, Kew.
- Liu, Z. J., Chen, S. C. & Chen, L. J. 2008: *Ypsilorchis* and *Ypsilorchidinae*, a new genus and a new subtribe of Orchidaceae. — *Journal of Systematics and Evolution* 46: 622–627.
- Margońska, H. B. & Szlachetko, D. L. 2001: *Alatiliparis* (Orchidaceae: Malaxidinae), a new orchid genus with two species from Sumatra. — *Annales Botanici Fennici* 38: 77–81.
- Margońska, H. B. & Szlachetko, D. L. 2004: *Disticholiparis*, a new genus of subtribe Malaxidinae. — *Orchidee* (Hamburg) 55: 175.
- Pearce, N. R. & Cribb, P. J. 2002: *The orchids of Bhutan*. — Charlesworth Group, Huddersfield.
- Pridgeon, A. M., Cribb, P. J., Chase, M. W. & Rasmussen, F. N. 2005: *Genera Orchidacearum*, vol. 4: Epidendroideae (Part 1). — Oxford University Press, Oxford.
- Ridley, H. N. 1886: A monograph of the genus *Liparis*. — *The Journal of the Linnean Society (Botany)* 22: 244–297.
- Seidenfaden, G. 1976: Orchid genera in Thailand IV. — *Dansk Botanisk Arkiv*. 31: 5–105.
- Seidenfaden, G. 1992: The orchids of Indochina. — *Opera Botanica* 114: 128–145.