
Validation of the Name *Sinoleontopodium lingianum* (Asteraceae, Gnaphalieae)

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ABSTRACT. *Sinoleontopodium lingianum* Y. L. Chen (Asteraceae, Gnaphalieae), originally described from Xizang (Tibet), China, was not validly published in 1985 because two gatherings were designated as type. The name is validated here, with the specimen bearing female florets designated as holotype.

Key words: Asteraceae, Gnaphalieae, IUCN Red List, *Sinoleontopodium*.

Sinoleontopodium lingianum Y. L. Chen, the basis for the monotypic genus *Sinoleontopodium* Y. L. Chen, was described based on material from Xizang (Tibet), China (Chen, 1985). Unfortunately, this publication was not in accordance with Articles 37.1 and 37.2 of the *International Code of Botanical Nomenclature* (McNeill et al., 2006), since two gatherings, one with female florets and the other with male florets, were cited concurrently as type. Article 37.1 requires the type to be clearly indicated for the name of a species published after 1957. Article 37.2 allows the type to be indicated by reference to a single gathering, even if more than one specimen is involved. However, nothing in Article 37 allows the type to be indicated by reference to more than one gathering. Although the collection information is quite similar for both specimens, the sites do differ, being glacial gravel, 4500 m, or cliff, 4600–4900 m, respectively. In such an instance, the name is not validly published because Article 32.1(e) requires compliance with the special provisions of Article 37 (among others).

Sinoleontopodium is a distinctive genus recognized widely since its publication (e.g., Ni & Cheng, 1987; Anderberg, 1991; Ying & Zhang, 1994). Chen (1985) considered that, in the habit and the shape of the involucre, this genus is very similar to some Sino-Himalayan species of *Leontopodium* R. Brown,

particularly to those in *Leontopodium* ser. *Haastioidea* Ling, in *Leontopodium* subsect. *Haastioidea* Handel-Mazzetti, such as *L. haastioides* (Handel-Mazzetti) Handel-Mazzetti, but readily distinguishable by the plants being dioecious and having homogeneous florets, the corolla white villous distally, and achenes 1-costate on each side. As well, Chen (1985) also pointed out that *Sinoleontopodium* may be more closely related to *Antennaria* Gaertner than to *Leontopodium* in the plants being dioecious, but differs in having pappus hairs not connate at the base, receptacles areolate with the areoles cup-shaped, corollas white villous distally, and involucre bracts thinly membranous. However, Anderberg (1991) later segregated *Sinoleontopodium*, together with five genera from New Zealand, Tasmania, and South America, namely *Psychrophyton* Beauverd, *Pterygopappus* Hooker f., *Loricaria* Weddell, *Raoullopsis* S. F. Blake, and *Mniodes* (A. Gray) Benthams, in the subtribe Loricariinae Anderberg in the tribe Gnaphalieae Benthams. The systematic position of *Sinoleontopodium* remains unresolved.

The first author intends to recognize *Sinoleontopodium* in his forthcoming treatment of the tribe Gnaphalieae in the *Flora of China*. It is therefore necessary for the only species of *Sinoleontopodium* to have a validly published name. The present paper validates the name *S. lingianum* under Article 45.1 (McNeill et al., 2006) by designating as the holotype a specimen from the gathering with female florets, cited in the original publication, and by direct reference to Chen's Latin description there. A specimen from the gathering with male florets is designated as a paratype. We ascribe both the name, *S. lingianum*, and its Latin description to the original author, Y. L. Chen, so that, under Article 46.2, the name must be

attributed to that author. We intend that the authorship of this name should be cited simply as Y. L. Chen, or more precisely Y. L. Chen in Y. S. Chen & Q. E. Yang.

Sinoleontopodium lingianum Y. L. Chen in Y. S. Chen & Q. E. Yang, sp. nov. TYPE: China. Xizang (Tibet): Mainling Co., Daduka, near Namucuo, 4500 m, on glacial gravel, 26 July 1983 [♀], *Exped. Pl. Resource, Inst. Biol. Xizang* 3373 (holotype, PE).

The validating Latin description for *Sinoleontopodium lingianum* by Y. L. Chen appeared in *Acta Phytotax. Sin.* 23: 458–459. 1985.

Habitat and distribution. *Sinoleontopodium lingianum* is only known from Mainling County, Xizang Autonomous Region (Tibet), China, growing on cliffs and glacial gravels at altitudes from 4500 to 4900 m.

IUCN Red List category. *Sinoleontopodium lingianum*, known from only two small populations from similar localities in Mainling County, should be categorized as a Critically Endangered species (CR), according to IUCN categories and criteria (IUCN, 2001).

Paratype. CHINA. **Xizang (Tibet):** Mainling County, Daduka, Namula, alt. 4600–4900 m, on cliff, 26 July 1983 [♂], B. S. Li, Z. C. Ni & S. Z. Cheng 5852 (PE).

Acknowledgments. We thank Nicholas J. Turland and Li-Bing Zhang for their critical comments on the manuscript.

Literature Cited

- Anderberg, A. A. 1991. Taxonomy and phylogeny of the tribe *Gnaphalieae* (Asteraceae). *Opera Bot.* 104: 1–195.
- Chen, Y. L. 1985. *Sinoleontopodium*, a new genus of Compositae from China. *Acta Phytotax. Sin.* 23: 457–459.
- IUCN. 2001. IUCN Red List Categories and Criteria, Version 3.1. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland, and Cambridge, United Kingdom.
- McNeill, J., F. R. Barrie, H. M. Burdet, V. Demoulin, D. L. Hawksworth, K. Marhold, D. H. Nicolson, J. Prado, P. C. Silva, J. E. Skog, J. H. Wiersma & N. J. Turland (editors). 2006. International Code of Botanical Nomenclature (Vienna Code). *Regnum Veg.* 146.
- Ni, Z. C. & S. Z. Cheng. 1987. On genera endemic to China and occurring in Xizang Plateau flora. *Acta Phytotax. Sin.* 25: 417–429.
- Ying, J. S. & Y. L. Zhang. 1994. *Sinoleontopodium* Y. L. Chen. Pp. 178–179 in *Spermatophytic Genera Endemic to China*. Science Press, Beijing.