
Valid Publication of *Asarum longirhizomatosum* (Aristolochiaceae)

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ABSTRACT. *Asarum longirhizomatosum*, originally described from Guanxi Province in China by C. F. Liang and C. S. Yang in 1975, was invalidly published in the original publication, because two collections were cited as type. The name is validated here by designating the collection *Chao-Liang Zhang 002* (IBK 00190377) as the holotype.

Key words: Aristolochiaceae, *Asarum*, China.

The genus *Asarum* L. s.l. (Aristolochiaceae), with about 90 species, is primarily distributed in southeastern Asia, with only a few species in North America and Europe (Kelly, 1998; Huang et al., 2003). Thirty-nine species have been recorded in China, and about 34 species are endemic (Huang et al., 2003). *Asarum longirhizomatosum* was originally described from Guanxi Province, southwestern China (Liang, 1975). This name has been widely used as it was included in the *Flora Reipublicae Popularis Sinicae* (Cheng & Yang, 1988: 192), and subsequently in the English edition, *Flora of China* (Huang et al., 2003: 256). However, the name was not validly published, because two collections were cited as "typus" in the original description (Liang, 1975: 21). The collections, *Chao-Liang Zhang 001* and *Chao-Liang Zhang 002*, were both separately and simultaneously designated as types, contrary to the requirements of Articles 37.1 and 37.2 (with Art. 8.1) of the *International Code of Botanical Nomenclature* (McNeill et al., 2006) for names published on or after 1 January 1958. In order to formalize usage of *A. longirhizomatosum*, the name is validated here by designating the collection *Zhang 002* as the holotype, which is preserved in good condition in IBK. Furthermore, upon contact to CMMI, the collection

Zhang 001 could not be confirmed by its curators (X.-F. Feng and Q.-J. Yuan at the Institute of Chinese Materia Medica, Academy of Chinese Medical Science, pers. comm.), and its existence is in doubt. According to Article 46.2, the authorship of the name *A. longirhizomatosum* remains as attributed to C. F. Liang & C. S. Yang. The spelling of the epithet is corrected in accordance with the Code's Recommendation 60G.

Asarum longirhizomatosum C. F. Liang & C. S. Yang, sp. nov. *Asarum longerhizomatosum* C. F. Liang & C. S. Yang, nom. inval., *Acta Phytotax. Sin.* 13(2): 21, pl. 1, fig. 2, pl. 2, fig. 4–10. 1975 [validating diagnosis]. TYPE: China. Guangxi: Daming Mtn., 1972, *Chao-Lian Zhang 002* (holotype, IBK 00190377; isotypes, IBK 00190376, 00190378).

In the English treatment for the *Flora of China*, Huang et al. (2003: 256) recognized that *Asarum longirhizomatosum* was not validly published. However, they did not validate the name, because they treated *Zhang 001* and *002* as a single collection, stating that "we prefer to regard the specimens as holotype and isotype and the name, therefore, as valid." In our opinion, *Zhang 001* and *002* clearly belong to two separate gatherings. This conclusion is based on the different collection numbers and the fact that, apart from the collection locality being noted as Daming Mountain, the three sheets of *Zhang 002* at IBK lack further label information (e.g., collection date, habitat, elevation) that could identify *Zhang 001* and *Zhang 002* as part of the same gathering.

Asarum longirhizomatosum is known from Guangxi Province, China, and extends south into Vietnam; it has been collected from thickets, open mountain slopes, and moist shady areas from an approximate known altitude of 200 m. To date, nine species of *Asarum* have been recorded from Guangxi Province; of these, *A. caudigerum* Hance and *A. geophilum* Hemsl. were also collected at Daming Mountain (Huang et al., 2003; pers. obs.). Morphologically, *A. longirhizomatosum* is similar to *A. sagittarioides* C. F. Liang by having connate sepals with a conspicuous orifice ring and constricted throat, and sepals that are not conspicuously pubescent adaxially. However, this species can be distinguished from *A. sagittarioides* in its slender stems with long rhizomes and fibrous roots (vs. robust with short rhizomes, and thick and fleshy roots), its oblong-ovate or narrowly elliptic-ovate leaf blades that are 5–8 cm wide (vs. narrowly or broadly ovate to triangular-ovate, and 11–14 cm wide), its solitary flowers (vs. usually paired), and its ligulate stamen connectives (vs. awl-shaped).

Paratypes, Asarum longirhizomatum. CHINA. **Guangxi:** Damingshan, 1972, *Chao-Liang Zhang 001* (CMMI not seen); Dongxing Co., 26 May 1972, *Nanyao Exped. 127* (IBK 00014455); Wuning Co., Daming Mtn., 26 Aug. 1958, *Y. C. Chen 327* (IBK); Mashan Co., Shangji, Daming Mtn., 26 Aug. 1958, *Y. C. Chen 453* (IBK); Shanglin Co., Xiyan, Daming Mtn., 27 Aug. 1958, *Y. C. Chen 623* (IBK). VIETNAM. **Dong Kinh:** Dahuangshan, 18 Dec. 1936, *W. T. Tsang 27296* (HITBC, IBSC).

Specimens examined, Asarum caudigerum. CHINA. **Guangxi:** Wuning Co., Daming Mtn., 26 Aug. 1958, *Y. C. Chen 328* (IBK).

Specimens examined, Asarum geophilum. CHINA. **Guangxi:** Shanglin Co., Xiyan, Daming Mtn., 28 Aug. 1958, *Y. C. Chen 632* (IBK).

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