Validation of the Name Strobilanthes sarcorrhiza (Acanthaceae)

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ABSTRACT. The name Strobilanthes sarcorrhiza (C. Ling) C. Z. Zheng (Acanthaceae) was not validly published in 1993 because the reference to the basionym was not cited fully. The name is validated here and represents a new combination referred from Championella Bremekamp. The taxon is similar to S. oligantha Miquel, but it differs in its rhizome thickened (vs. not thickened), petioles 0–0.3 cm (vs. 3–4 cm), leaf blades lanceolate to oblonglanceolate (vs. broad-ovate to elliptic), lateral veins 7 to 9 (vs. 3 to 6), and spikes 2–4(–5) cm (vs. ca. 1 cm).

 $\label{eq:Keywords: Acanthaceae, Championella, Strobilanthes.} Key words: A canthaceae, Championella, Strobilanthes.$

Strobilanthes Blume is the second largest genus in the family Acanthaceae; it is distributed in tropical and subtropical regions of Asia. Estimates of the species number in Strobilanthes range from 250 species (Hu, 2002; Carine & Scotland, 2002) to 350 (Mabberley, 1987) or 450 or more (Terao, 1983). Bremekamp (1944) divided Strobilanthes and related genera into over 54 genera in 27 informal groups in his monograph of the subtribe Strobilanthinae Lindau. Terao (1983) recognized a broadly circumscribed Strobilanthes comprising all species of Strobilanthinae. The results of recent molecular studies (Movlan et al., 2004), statistical analysis (Carine & Scotland, 2002), and pollen and gross morphology (Terao, 1983; Wood, 1994, 1995) demonstrate clearly that adequate diagnosis of the majority of groups into which the Strobilanthinae was divided by Bremekamp (1944) and others (Hu, 2002; Cui, 1990; Hsieh & Huang, 1974) is problematic and that a single monophyletic expanded Strobilanthes should be recognized.

In the course of revising Chinese *Strobilanthes* Blume s.l., we differ from the authors of *Flora Reipublicae Popularis Sinicae* (Hu, 2002) in regarding

the Strobilanthinae sensu Bremekamp (1944) as a single genus, *Strobilanthes*.

Strobilanthes sarcorrhiza (C. Ling) C. Z. Zheng (Zheng, 1993), originally described in Championella as C. sarcorrhiza C. Ling (1975), is accepted by us. However, the name Strobilanthes sarcorrhiza is not validly published under Article 33.3 of the International Code of Botanical Nomenclature (Greuter et al., 2000) because Zheng failed to fully cite the references to its basionym. The current paper validates the name by fully citing the basionym reference (Ling, 1975).

Strobilanthes sarcorrhiza is endemic to China and occurs in southwestern Zhejiang Province. The species belongs to the Championella Bremekamp group. This group is characterized by its mostly weak, decumbent isophyllous herbs, few-flowered and terminal spikes usually covered in prominent and large-celled white hairs, the bracts persistent and foliose, the calyx subequally 5-lobed to the base, and four fertile stamens. Bremekamp (1944) recognized this group as a distinct genus, Championella, consisting of nine species (Deng et al., 2006), and then Terao (1983) treated it as subsection Championella (Bremekamp) Terao in his unpublished system. Strobilanthes sarcorrhiza is similar to S. oligantha Miquel, but it differs in its rhizome thickened (vs. not thickened), petioles 0-0.3 cm (vs. 3-4 cm), leaf blades lanceolate to oblong-lanceolate (vs. broad-ovate to elliptic), lateral veins 7 to 9 (vs. 3 to 6), and spikes 2-4(-5) cm (vs. ca. 1 cm).

Strobilanthes sarcorrhiza (C. Ling) C. Z. Zheng ex Y. F. Deng & N. H. Xia, comb. nov. Basionym: Championella sarcorrhiza C. Ling, Acta Phytotax. Sin. 13(3): 93. 1975. TYPE: China. Zhejiang Province, C. Ling (71)037 (holotype, PE).

Additional specimens examined. CHINA. **Zhejiang:** Linhai xian, Kuocangshan, 1000 m, *Ding Bingyang & Jin Weishan 83* (HZU); Wenling xian, Meixi gongshe, Gingkun-

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shan, Hangzhou Bot. Gard. Hb. 4129 (PE); Yongjia xian, Huangnan xiang, Zhukeng, Hong Lin 2160 (HZU); Yueqing xian, Yandangshan, 10 Oct. 1915, s. coll. 945 (PE); Yueqing xian, Yandangshan, Linyansi, C. Ling 731505 (PE); Yueqing xian, Beiyandangshan, Zhang Chaofang & Zheng Chaozhong 5898 (HZU); Yueqing xian, Yandangshan, Guzhudong, Zhang Chaofang & Zheng Chaozhong 6203 (HZU); Yueqing xian, Yandangshan linchang, Ding Bingyang & Zhang Qingmian 1857 (HZU); s. loc., Wang Kehui s.n. (IBSC).

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Literature Cited

- Bremekamp, C. E. B. 1944. Materials for a monograph of the Strobilanthinae. Verh. Kon. Ned. Akad. Wettensch., Afd. Natuurk., Tweede Sect. 41(1): 1–305.
- Carine, M. A. & R. W. Scotland. 2002. Classification of Strobilanthinae (Acanthaceae): Trying to classify the unclassifiable. Taxon 51: 259–279.
- Cui, H. B. (Tsui, H. P.). 1990. Materiae ad Floram Acanthaceae Sinicarum (1). Acta Bot. Yunnan. 12(3): 269–278.

- Deng, Y. F., J. R. I. Wood & R. W. Scotland. 2006. New and reassessed species of *Strobilanthes* (Acanthaceae) in the flora of China. Bot. J. Linn. Soc. 150: 369–390.
- Greuter, W., J. McNeill, F. R. Barrie, H. M. Burdet, V. Demoulin, T. S. Filgueiras, D. H. Nicolson, P. C. Silva, J. E. Skog, P. Trehane, N. J. Turland & D. L. Hawksworth (editors). 2000. International Code of Botanical Nomenclature (Saint Louis Code). Regnum Veg. 138.
- Hsieh, C. F. & T. C. Huang. 1974. The Acanthaceous plants of Taiwan. Taiwania 19: 19–57.
- Hu, C. C. 2002. Championella. Pp. 89–97 in C. C. Hu (editor), Flora Reipublicae Popularis Sinicae, Tomus 70. Science Press, Beijing.
- Ling, C. 1975. A new species of medicinal plants in southern Chekiang—*Championella sarcorrhiza*. Acta Phytotax. Sin. 13(3): 93–94.
- Mabberly, D. J. 1987. The Plant-Book. Cambridge Univ. Press, Cambridge.
- Moylan, E. C., J. R. Bennett, M. A. Carine, R. G. Olmstead & R. W. Scotland. 2004. Phylogenetic relationships among Strobilanthes s.l. (Acanthaceae): Evidence from ITS nrDNA, trnL-F cpDNA, and morphology. Amer. J. Bot. 91: 724–735.
- Terao, H. 1983. Taxonomic study of the genus *Strobilanthes* Bl. (Acanthaceae). Generic Delimitation and Infrageneric Classification. Ph.D. Thesis, Kyoto University, Kyoto, Japan.
- Wood, J. R. I. 1994. Notes relating to the flora of Bhutan: XXIX. Acanthaceae, with special reference to Strobilanthes. Edinburgh J. Bot. 51: 175–274.
- ——. 1995. Notes on *Strobilanthes* (Acanthaceae) for the flora of Ceylon. Kew Bull. 50: 1–24.
- Zheng, C. Z. 1993. Acanthaceae. Pp. 78–89 in C. Z. Zheng (editor), Flora of Zhejiang, Tomus 6. Zhejiang Sciences and Technology Publishing House, Hang-zhou