

中国毛茛科翠雀属的分类学研究(十二): 竞生翠雀花的名实订正

袁琼, 杨亲二*

(中国科学院华南植物园, 中国科学院植物资源保护与可持续利用重点实验室, 广州 510650)

摘要: 通过标本室和野外观察, 发现根据云南西北部中甸标本描述的毛茛科竞生翠雀花(*Delphinium yangii* W. T. Wang)与此前记载分布于该地及四川西南部(康定、小金、汶川)的宝兴翠雀花(*D. smithianum* Hand.-Mazz.)属于同一分类实体, 故将前者处理为后者的异名。

关键词: 翠雀属; 毛茛科; 分类学

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Taxonomic Studies on the Genus *Delphinium* (Ranunculaceae) from China (XII): The Identity of *D. yangii*

YUAN Qiong, YANG Qin-er*

(Key Laboratory of Plant Resources Conservation and Sustainable Utilization, South China Botanical Garden, Chinese Academy of Sciences, Guangzhou 510650, China)

Abstract: Both herbarium and field observations have shown that *Delphinium yangii* W. T. Wang (Ranunculaceae) described from Zhongdian, northwestern Yunnan, China is identical with *D. smithianum* Hand.-Mazz., a species previously reported to occur in that area and also in western Sichuan (Kangding, Xiaojin, Wenchuan). Therefore the former was placed in synonymy with the latter.

Key words: *Delphinium*; Ranunculaceae; Taxonomy

Delphinium yangii W. T. Wang (Ranunculaceae) was described by Wang^[1] in 1986 based on two collections, J. S. Yang 8436 (Fig. 1: A, B) and 8949 (Fig. 1: C), from Zhongdian, northwestern Yunnan, China. In the protologue he compared it with *D. chenii* W. T. Wang, stating that they were distinguishable by several characters: in *D. yangii* the leaves were densely appressed pubescent adaxially; flowers were larger, with lateral and lower sepals 2.1–2.6 cm long; sepals were blue throughout, sparsely pubescent adaxially below the apex; staminode limbs were emarginate, white barbate on ventral side, whereas in

D. chenii the leaves were sparsely appressed hirsute adaxially; flowers were smaller, with lateral and lower sepals 1.5–1.7 cm long; sepals were white at margin, glabrous adaxially; staminode limbs were 2-lobed to the middle, yellow barbate on ventral side.

In a previous paper of this series^[2], we have treated *Delphinium chenii* as a synonym of *D. batangense* Finet & Gagnep. In describing *D. yangii* as new, it is evident that Wang overlooked *D. smithianum* Hand.-Mazz., a species first described from Kangding in western Sichuan^[3] but afterwards also reported to occur in Xiaojin in western Sichuan^[4] and Zhongdian in north-

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* Corresponding author. E-mail: qeyang@scib.ac.cn

western Yunnan^[4-8]. In 1993, Wang^[5] still did not notice the striking resemblance between *D. yangii* and *D. smithianum*, although he simultaneously cited J. S. Yang 8436, the type collection of *D. yangii*, under both *D. smithianum* and *D. yangii*.

After careful comparison of their type specimens and other collections (some are shown in Figures 1–6), we are convinced that *Delphinium yangii* is identical with *D. smithianum*. In Zhongdian, *D. smithianum* is currently known to occur only on the southern side of Zhongdian Daxue Shan, a mountain situated between Xiangcheng and Zhongdian in the Sichuan-Yunnan border area (the type collection of *D. yangii*, J. S. Yang 8436, was made from that mountain). In the Zhongdian area, the only congener which may be confused with *D. smithianum* is *D. batangense*. The latter is widely distributed in western Sichuan (Batang, Daocheng, Dege, Jiulong, Xiangcheng, Yajiang) and northwestern Yunnan (Deqen, Zhongdian)^[2], but in Zhongdian it is currently known to occur only on the eastern side of Hong Shan, a mountain situated between Daocheng and Zhongdian in the Sichuan-Yunnan border area. Both *D. batangense* and *D. smithianum* are alpine species growing in grazed meadows, thickets or on limestone scree slopes at high altitudes (4200–4600 m for *D. smithianum*, 3800–5200 m for *D. batangense*). Morphologically they are usually readily distinguishable from each other in the size and shape of the spur of the upper sepal: in *D. batangense* the spur is ca. 2–3 mm wide at base, blunt at apex, and subcylindric in shape, whereas in *D. smithianum* the spur is ca. 5 mm wide at base, acute at apex, and subulate in shape. In addition, while *D. batangense* is highly variable in stature (10–50 cm tall), *D. smithianum* seems to be a rather uniformly dwarf plant of 10–15 cm. It is noteworthy that the spur in *D. smithianum* will appear to be much more slender at fruiting stage when the flowers begin to wither (Fig. 5: C, D; Fig. 6: A), and thus the specimens collected at this stage are to be more easily confused with those of *D. batangense*.

From the above analyses we deem it justifiable to place *Delphinium yangii* in synonymy with *D.*

smithianum.

Taxonomic treatment

Delphinium smithianum Hand.-Mazz. in Acta Hort. Gothob. **13**: 49. 1939; W. T. Wang in Acta Bot. Sin. **10**: 76. 1962; Munz in J. Arn. Arb. **48**: 534. 1967; W. T. Wang in Fl. Reipubl. Popularis Sin. **27**: 371. 1979; et in Vas. Pl. Hengduan Mount. **1**: 481. 1993; et in Fl. Yunnan. **11**: 115. 2000; W. T. Wang & Warnock in Fl. China **6**: 237. 2001. Type: China. Sichuan: Kangding, Dapao Shan, scree slopes, 4000 m, Aug. 20, 1934, H. Smith 11274 (holotype, W, most likely destroyed during World War II; isotypes, A!, BM!, MO!, NY!, PE!).

D. yangii W. T. Wang in Bull. Bot. Res., Harbin **6** (1): 3. 1986; et in Vas. Pl. Hengduan Mount. **1**: 481. 1993; et in Fl. Yunnan. **11**: 116. 2000; W. T. Wang & Warnock in Fl. China **6**: 238. 2001. **syn. nov.** Type: China. Yunnan: Zhongdian, Dongwang, 4200–4500 m, Aug. 5, 1976, J. S. Yang 8436 (holotype, KUN!; isotype, KUN!).

Notes. The Chinese name of *Delphinium smithianum* is “Bao Xing Cui Que Hua”^[4-8], but actually we have not as yet seen any specimen of the species from Baoxing in western Sichuan. Considering that Balang Shan in western Sichuan, where *D. smithianum* occurs, is situated in the border area of Baoxing, Xiaojin and Wenchuan, and thus the species is expected to be discovered most likely from Baoxing in future, we still use “Bao Xing Cui Que Hua” as the Chinese name for the species.

Additional specimens examined. **China. Sichuan:** Kangding, Z. P. Huang et al. 1613 (IBSC, KUN), T. T. Yu 2416 (PE); Xiaojin, Q. E. Yang & Q. Yuan 531 (PE); Wenchuan, Q. E. Yang & Q. Yuan 221 (PE). **Yunnan:** Zhongdian, D. E. Boufford et al. 29186 (PE), J. S. Yang 8332 (KUN, PE), 88-65 (PE), 8945 (KUN), Z. H. Yang 86184 (IBSC).

Distribution and habitat. *Delphinium smithianum* is currently known from western Sichuan (Kangding, Xiaojin, Wenchuan) and northwestern Yunnan (Zhongdian), China (Fig. 7). It grows in grazed meadows, thickets or on limestone scree slopes at high altitudes of 4200–4600 m.



Fig. 1 Specimens of *Delphinium smithianum*, all from Zhongdian, Yunnan, China. A: J. S. Yang 8436 (holotype of *D. yangii*, KUN); B: J. S. Yang 8436 (isotype of *D. yangii*, KUN); C: J. S. Yang 8945 (paratype of *D. yangii*, KUN); D: J. S. Yang 8332 (KUN, previously misidentified as *D. yangii* on the determinavit slip).



Fig. 2 Specimens of *Delphinium smithianum*, all from Zhongdian, Yunnan, China. A, B: D. E. Boufford et al. 29186 (PE); C: S. K. Wu et al. 37 (KUN, previously misidentified as *D. batangense* on the determinavit slip); D: S. K. Wu et al. 37 (KUN, previously misidentified as *D. batangense* on the determinavit slip).



Fig. 3 Isotype sheet of *Delphinium smithianum*, H. Smith 11274 (PE), Kangding, Sichuan, China.



Fig. 4 Isotype sheets of *Delphinium smithianum*. A–D: H. Smith 11274 (A, BM, MO, NY), Kangding, Sichuan, China.



Fig. 5 Flowering (A, B) and fruiting (C, D) specimens of *Delphinium smithianum*. A, B: Q. E. Yang & Q. Yuan 221 (PE), Wenchuan, Sichuan, China; C, D: Q. E. Yang & Q. Yuan 531 (PE), Xiaojin, Sichuan, China.



Fig. 6 *Delphinium smithianum* in the wild. A: Habitat and habit (fruiting); B, C: Habit (flowering); D: Flower (lateral view); E: Flower (frontal view). Photos by Q. Yuan from Xiaojin (A) and Wenchuan (B–E), Sichuan, China.

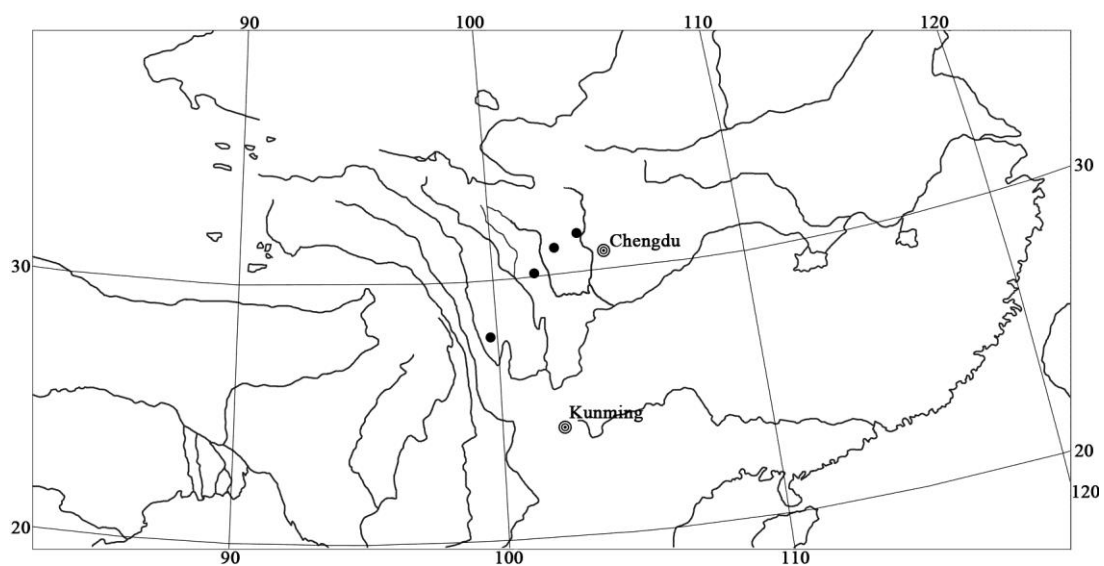


Fig. 7 Distribution of *Delphinium smithianum* (●).

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