
Lectotypification of the Chinese Species *Stachyurus yunnanensis* and the Identity of *S. callosus* (Stachyuraceae)

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ABSTRACT. The Chinese endemic *Stachyurus yunnanensis* Franchet is lectotypified. *Stachyurus callosus* C. Y. Wu ex S. K. Chen, also endemic to China, is referred to synonymy of *S. yunnanensis* based on the two entities having inseparable leaf characters and a sympatric distribution. *Stachyurus esquirolii* H. Léveillé is regarded as a synonym of *S. yunnanensis*, as in Li's and Lauener's previous treatments of this taxon.

Key words: China, Stachyuraceae, *Stachyurus*, Yunnan.

Stachyurus yunnanensis Franchet was first described by Franchet (1898) from three collections from Yunnan and Sichuan provinces of China. In the protologue, the characters of the flowers and especially the leaves of this species were described; leaf characters, e.g., leaf shape and margin serration, were emphasized to distinguish *S. yunnanensis* from *S. praecox* Siebold & Zuccarini. No holotype was designated by Franchet, but he did cite three specimens, which are therefore syntypes (ICBN Art. 9.4, Greuter et al., 2000). *J. M. Delavay 822*, *J. M. Delavay 3334*, and *P. Farges 1156* are preserved at P. Up to now no lectotype has been designated, as far as we could trace. According to Articles 9.9 and 9.10 of the ICBN, a lectotype may be designated for *S. yunnanensis* and, under the circumstances, it must be one of the syntypes. The specimen *J. M. Delavay 822* (P) is the most complete, a beautiful specimen with ovate-oblong to ovate-lanceolate, leathery leaves, with serration at the margins, and racemes with dense, subsessile, yellow flowers. It best corresponds with the diagnosis of *S. yunnanensis*, and it agrees with the species as currently understood.

Stachyurus yunnanensis Franchet, J. Bot. (Morot) 12: 253. 1898. TYPE: China. Yunnan: Mosuoying, 23 Apr. 1883, *Delavay 822* (lectotype, designated here, P)

Stachyurus esquirolii H. Léveillé, Fl. Kouy-Tchéou. 416.

1915. TYPE: China. Guizhou: 1700 m, 20 Mar. 1912, *J. Esquirol 3517* (holotype, E).

Stachyurus callosus C. Y. Wu ex S. K. Chen, Acta Bot. Yunnan. 3: 128. 1981. Syn. nov. TYPE: China. Yunnan: Malipo, 20 Jan. 1940, *C. W. Wang 86275* (holotype, KUN; isotype, PE).

Specimens examined. CHINA. **Yunnan:** Pingbian, 26 Oct. 1954, *K. M. Feng 5175* (KUN, PE).

Habitat and distribution. *Stachyurus yunnanensis* is an evergreen shrub that is narrowly distributed in China from northeastern and southeastern Yunnan to Guangdong provinces, via Sichuan, Guizhou, Hubei, and Hunan provinces; it usually grows in calcareous forests between 650 and 1950 m.

Stachyurus esquirolii H. Léveillé was first published by H. Léveillé (1914) based on one collection, *J. Esquirol 3517* (E), but it was not recognized by later workers. Li (1943) and Lauener (1966) treated it as a synonym of *S. yunnanensis*. After examining *J. Esquirol 3517*, we found its morphological features, such as persistent, ovate-oblong to ovate-lanceolate, leathery leaves, distinct serration, and 5–9 cm long inflorescences with yellow flowers, are consistent with those of *S. yunnanensis*. We therefore agree with Li's (1943) and Lauener's (1966) treatments of it.

Stachyurus callosus C. Y. Wu ex S. K. Chen was first described based on the holotype collection *C. W. Wang 86275* (Chen, 1981). The protologue indicated that this species was close to *S. yunnanensis* but differed only in having elliptic or oblong-elliptic leaves with irregular and straight teeth. *Stachyurus callosus* has been traditionally recognized as a species by taxonomists since its 1981 publication (Chen, 1983; Tang et al., 1983; Shan, 1999). After examining numerous specimens of *Stachyurus* and conducting a field expedition to Sichuan and Yunnan provinces of China, we found a continuous variation in the leaf blades of *S. yunnanensis*. For example, in this species, leaves are leathery or thickly papery, ovate-oblong, oblong-elliptic, or ovate-lanceolate, with either regular or irregular serration at the margins. Even different

leaves on the same plant of *S. yunnanensis* may have variable teeth. The characters of *S. callosus* are within the range of that of *S. yunnanensis*. Therefore, it is effectively impossible to distinguish between *S. callosus* and *S. yunnanensis* based solely on morphological characters.

Stachyurus callosus is distributed only in Malipo and Pingbian Counties of southeastern Yunnan (based on two specimens), at an altitude of 900–1100 m, falling just within the geographic distribution of *S. yunnanensis*. In addition, both species grow in calcareous forests (Chen, 1981). On the basis of these data, we believe that *Stachyurus callosus* should be treated as a synonym of *S. yunnanensis*.

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