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# *Thalictrum pseudoichangense* (Ranunculaceae), a New Species from Guizhou, China

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**ABSTRACT.** *Thalictrum pseudoichangense* Q. E. Yang & G. Zhu, a new species of Ranunculaceae from Guizhou Province, China, is described and illustrated. The new species is related to *T. ichangense* Lecoyer ex Oliver and *T. coreanum* H. Léveillé by having peltate leaflets and stipitate achenes, but differs in the styles being much longer, ca. 3 mm long.

**Key words:** China, Ranunculaceae, *Thalictrum*.

In the course of examining specimens of Ranunculaceae in the herbarium of the Royal Botanic Gardens, Kew (K), a gathering of *Thalictrum* L. made in Guizhou, southwestern China, i.e., *H. J. Esquirol s.n.*, caught the first author's attention. This gathering had been previously identified as *T. fortunei* S. Moore at Kew, a species occurring only in eastern China's Anhui, Jiangsu, Jiangxi, and Zhejiang Provinces. At first glance the specimen is somewhat similar to *T. fortunei* in habit and leaf shape, but upon careful examination it is clearly a quite different species. The plant under question has slightly peltate leaves and conspicuously stipitate achenes, whereas *T. fortunei* has non-peltate leaves and sessile achenes. Having peltate leaves and stipitate achenes, the plant is undoubtedly close to *T. ichangense*, a species widely distributed in China and northern Vietnam, and also to *T. coreanum* (sometimes treated as a variety of *T. ichangense*, i.e., var. *coreanum* (H. Léveillé) H. Léveillé ex Tamura), a species occurring in Korea, but differs by having styles much longer, ca. 3 mm long, subulate in shape, and ventrally indistinctly stigmatic. In both *T. ichangense* and *T. coreanum*, the achenes have very short and inconspicuous styles ca. 0.3 mm long and ventrally distinctly stigmatic. As the length of styles and the degree of development of stigmatic tissue are important characters

for the classification of the genus *Thalictrum* (Wang & Wang, 1979; Wang, 1980), it seems reasonable to describe the plant as a new species.

The gathering *H. J. Esquirol s.n.* has no record of precise collection locality, date, or habitat. The record includes only "Kweichow, collected by *H. J. Esquirol*." The sheet at Kew was presented to K in January 1950 by the Hong Kong Herbarium of the Agriculture, Fisheries and Conservation Department of Hong Kong, with the accession number to the Hong Kong Herbarium being 252. We expect to find more sheets of this gathering from the Hong Kong Herbarium.

H. J. Esquirol was a French missionary collecting plants mainly in Guizhou Province from 1896 to 1933, particularly in its southwestern part, such as Xingyi, Zhenfeng, Ceheng, and Wangmo Counties (W. T. Wang, unpublished data). We suspect the gathering *H. J. Esquirol s.n.* mentioned above might be made from southwestern Guizhou, although we could not find any other gatherings of the new species from this region after a comprehensive survey of *Thalictrum* collections deposited in the major Chinese herbaria. This is somewhat understandable since Guizhou is a province of China not yet very carefully botanized.

*Thalictrum* includes 150 to 200 species in the world, mainly distributed in temperate regions (Fu & Zhu, 2001; Tamura, 1995). In China 76 species have been recorded, of which 49 are endemic (Wang & Wang, 1979; Fu & Zhu, 2001). Most of the Chinese *Thalictrum* species are distributed in southwestern China, particularly in Yunnan and Sichuan. The genus is not richly represented in Guizhou, where only nine species (including the new species described herein) have been known. Detailed fieldwork is needed to gain a better knowledge of the genus *Thalictrum* in this province.



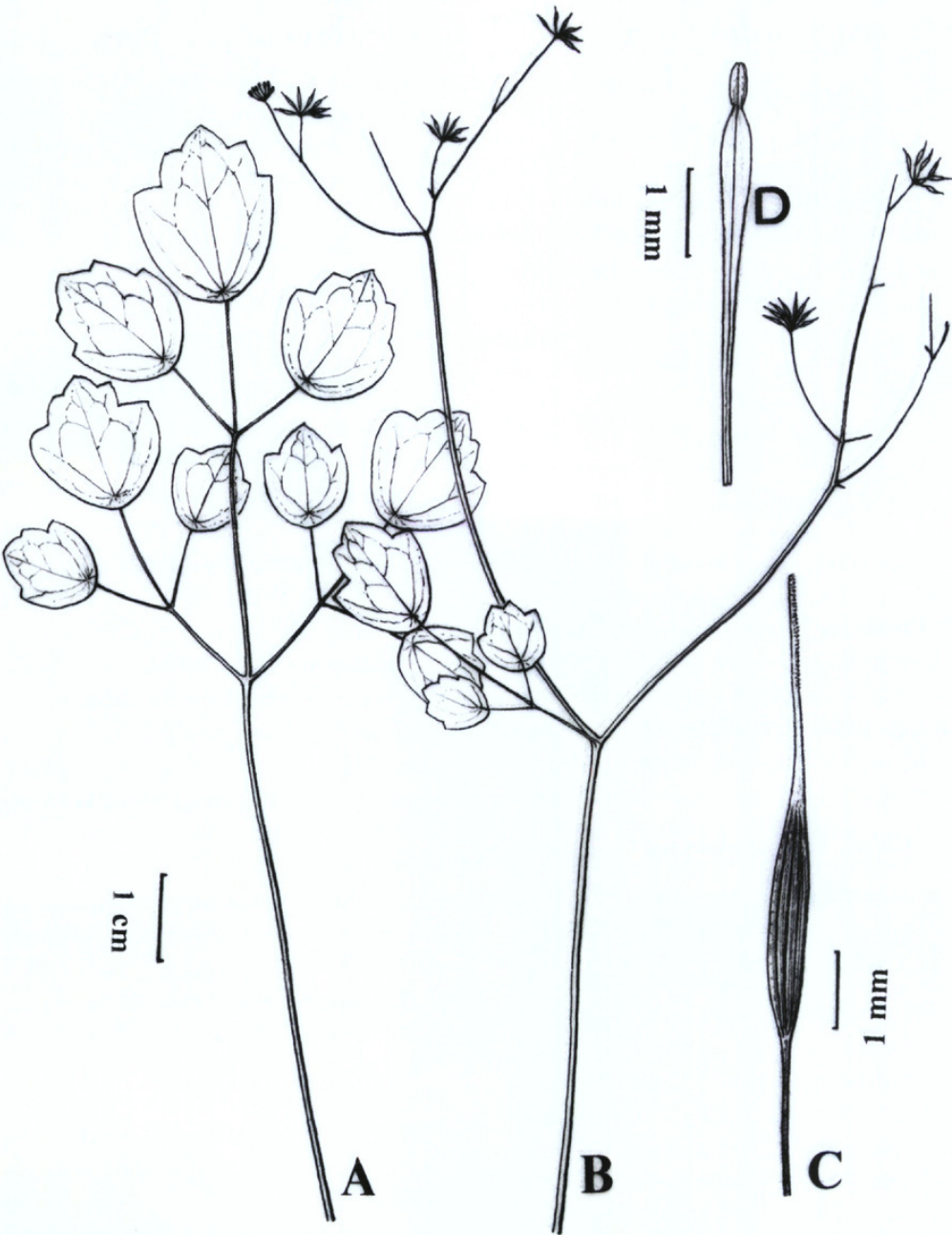


Figure 1. *Thalictrum pseudoichangense* Q. E. Yang & G. Zhu. —A. Basal leaf. —B. Flowering branch. —C. Achene. —D. Stamen. Drawn from the type, *H. J. Esquirol s.n.* (K).

Considering our new species is very similar to *Thalictrum ichangense* in general appearance, we name it *T. pseudoichangense*.

***Thalictrum pseudoichangense*** Q. E. Yang & G. Zhu, sp. nov. TYPE: China. Guizhou: precise locality (southwestern Guizhou?) and date unknown, *H. J. Esquirol s.n.* (holotype, K). Figure 1.

Haec species *Thalictrum ichangense* et *T. coreano* affinis foliolis peltatis et acheniis stipitatis, sed stylis multo longioribus, circiter 3 mm longis differt.

Herbs perennial, glabrous; stems 2, 15–25 cm

tall, with a few distal branches. Basal leaves 2; petiole 4–5 cm long; leaf blade 2- or 3-ternate, 6–12 × ca. 5 cm; leaflets slightly peltate, thinly herbaceous, obovate, widely ovate or suborbicular, 0.8–2 × 0.7–1.5 cm, apex slightly obtuse or rounded, base subrounded, trilobed; lobe margins toothed; nerves flat on both surfaces; petiolule 1.7–3 cm long; cauline leaves ca. 3, similar to the basal ones but smaller, ca. 4 × 1.5 cm. Inflorescence monochasial; pedicel slender, ca. 5 mm long. Flowers with sepals caducous; stamens ca. 6 mm long; anthers elliptic, ca. 0.5 mm long; filaments clavate, gradually dilated upward, apex oblanceolate; carpels 5 to 6, long-stipitate; styles subequalling ova-

ries, ca. 3 mm long, ventrally indistinctly stigmatic in upper part. Achene body fusiform, ca. 3 mm long; veins ca. 8; stipe slender, ca. 2 mm long.

*Thalictrum pseudoichangense*, which is known thus far only from the type collection, is closely related to *T. ichangense* and *T. coreanum* in having peltate leaflets and stipitate achenes, but differs by having styles much longer, ca. 3 mm long, subulate in shape, ventrally indistinctly stigmatic. In the latter two species, the styles are very short and inconspicuous, ca. 0.3 mm long, and ventrally distinctly stigmatic. Based on their stipitate achenes, these three species are undoubtedly members in *Thalictrum* subg. *Thalictrum* sect. *Tripterium* DC. ser. *Clavata* W. T. Wang & S. H. Wang (= sect. *Physocarpum* DC.). This series is characterized mainly by having leaves herbaceous, styles usually very short, ventrally distinctly stigmatic, achenes stipitate, compressed, and unwinged (Wang & Wang, 1979). The series comprises ca. 27 species, mostly occurring in eastern Asia, 12 (including the present new species) in China, of which 9 are endemic to the country (Wang & Wang, 1979). It is noteworthy that in the series *Clavata*, *T. pseudoichangense* is the only species whose carpels have long styles which are ventrally indistinctly stigmatic, and thus might represent a primitive form (W. T. Wang, pers. comm.). Wang and Wang (1979) and Wang (1980) considered that in the genus *Thalic-*

*trum* the long styles which are ventrally indistinctly stigmatic, such as those of *T. javanicum* Blume, *T. faberi* Ulbrich, *T. robustum* Maximowicz, and *T. megalostigma* (Boivin) W. T. Wang, may represent a primitive state, whereas the short styles ventrally distinctly stigmatic, such as those of *T. baicalense* Turczaninow, *T. ichangense*, and *T. delavayi* Franchet, may represent a relatively derived state.

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