



## A new species of *Thalictrum* (Ranunculaceae) from southern Tibet (Xizang), China

JIN-YU LI<sup>1</sup>, LEI XIE<sup>1,\*</sup> & LIANG-QIAN LI<sup>2</sup>

<sup>1</sup>Beijing Forestry University, 35 East Qinghua Rd. Haidian District, Beijing 100083, China.

<sup>2</sup>Institute of Botany, the Chinese Academy of Sciences, 20 Nanxincun, Haidian District, Beijing 100093, China.

\*Author for Correspondence: Lei Xie, email: xielei\_si@126.com

### Abstract

The new species *Thalictrum austrotibeticum* (Ranunculaceae) from southern Tibet (Xizang), China, is here described and illustrated. It occurs in forest margin and grassy slopes of several valleys of southern Xizang along the central Himalayas. This species is morphologically well differentiated from other *Thalictrum* species from south-west China, Bhutan, Nepal, and Northern India. From its floral characters, this species shows some relationship with *Th. finetii*. A key of *Thalictrum* species distributed in southern Xizang and adjacent areas of Bhutan, Nepal, and India is also provided.

**Kew words:** New species, Ranunculaceae, *Thalictrum austrotibeticum*, Tibet (Xizang)

### Introduction

The meadow rue genus, *Thalictrum* L. (1753: 545) consists of about 200 species distributed in most regions of the earth, especially common in temperate zones (Lecoyer 1885; Boivin 1944; Wang & Wang 1979; Tamura 1995; Ziman & Keener 1989, Fu & Zhu 2001). The genus shows great variation in morphology, sexual reproductive patterns, pollination mode, and ploidy levels (Boivin 1944; Tamura 1995; Fu & Zhu 2001). For this reason, the taxonomy of this large and complicated genus is still a challenge for taxonomists. Some *Thalictrum* species in deep valleys of southern Tibet (Xizang) along Himalayas are little known, in which area intensive species diversity of the genus occurs.

In summer of 2013, the authors organized a field expedition, collected plant materials from southern Xizang for the *Flora of Pan-Himalayas*. During the field investigation, we collected a distinctive *Thalictrum* specimens characterized by at all habit, large and abaxially hairy leaves, large paniculate inflorescences, flowers with white or pink sepals, purple filaments, and compressed fruits. After carefully studying the collected material as well as checking other *Thalictrum* specimens from southern Xizang and adjacent Bhutan, Nepal, and Indian areas deposited in herbaria (BM, CDBI, E, GH, IBSC, K, KUN and PE), we propose that this species is new to science. Thus, the new *Thalictrum* species is here described and illustrated.

### Taxonomy

*Thalictrum austrotibeticum* J. Y. Li, L. Xie & L. Q. Li, *sp. nov.* (Figs. 1–2).

Similar to *Thalictrum finetii* Boivin (1945: 113) by its floral structure such as filiform filaments, mucronate anthers, hairy pistils, not winged stigma, and compressed achenes with a dorsal margin, but distinguished by its much larger and bluish leaflets (usually 4–5 cm long in *Th. austrotibeticum* vs. less than 2 cm long in *Th. finetii*), pubescent pedicels (glabrous in *Th. finetii*), purple filaments (white in *Th. finetii*), and white or pink sepals (yellowish green in *Th. finetii*). *Thalictrum finetii* is distributed in eastern Xizang and Hengduan Mountains and the new species is distributed in southern Xizang.

**Type:**—CHINA. Xizang: Nyalam, around 707 Bridge, 28°4'58"N, 85°59'56"E, 28 July 2013, PE-Tibetan Expedition 4387 (holotype PE!, barcode: PE2427713; isotypes PE!)