



## *Primula mianyangensis* (Primulaceae), a new species from Sichuan, China

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### Abstract

A new species assigned to *Primula* section *Aleuritia* Duby is described and illustrated under the name *P. mianyangensis* G.Hao & C.M.Hu. The new species resembles *P. socialis* Chen & C.M.Hu in lacking a scape and having farinose leaves, but differs by its much taller stature, long-petioled leaves and larger flowers.

**Key words:** Section *Aleuritia*, primrose, southwestern China

### Introduction

*Primula* L. (1753: 142), comprising more than 500 species, is the largest genus of Primulaceae (Hu & Kelso 1996, Richards 2002, Mast *et al.* 2006). The genus is mainly distributed in the North Temperate zone, with only a few outliers in the mountainous regions of Africa, tropical Asia, and South America. The modern centre of diversity is in West China, with approximately 300 species, most of which occur in western Sichuan, eastern Xizang, and northwestern Yunnan (Hu 1994, Hu & Kelso 1996).

In the past twenty years large-scale molecular phylogenetic analyses on the genus *Primula* have been carried out (Mast *et al.* 2001, Trift *et al.* 2002, Mast *et al.* 2006, Yan *et al.* 2010). Concomitantly, a series of field expeditions have been undertaken in various parts of China to collect samples for such molecular phylogenetic studies, and in the course of naming the voucher specimens, a new species was discovered and is described here.

According to the classification system of the genus established by Smith *et al.* (1941–1949) and modified by Hu (1990), the new species, named here as *Primula mianyangensis* G.Hao & C.M.Hu, obviously belongs to *Primula* sect. *Aleuritia* Duby (1844: 41). Superficially it resembles *P. kialensis* Franchet (1895: 450), but differs from the latter by lacking a scape, with flowers solitary arising from the leaf-rossette. It is more closely related to *P. socialis* F.H.Chen & C.M.Hu in Hu (1990: 209), both characterized by having solitary flowers arising from the leaf-rossette, without a scape, but can be distinguished from *P. socialis* by its larger stature, long-petioled leaves and the larger flowers. *Primula socialis* occurs in Yunnan, Tengchong Xian, about 870 km west of the site of the new species and in a similar habitat.

*Primula mianyangensis* G.Hao & C.M.Hu, *sp. nov.* (Fig. 1)

Type:—CHINA. Sichuan: Mianyang City, An Xian, Cha Ping Xiang, summit of Qian Fo Shan, 31° 74' N, 104° 21' E, 2750 m elev., 20 June 2012, Y. Xu 120112 (holotype: IBSC; isotype: IBSC).

*Species affinis* *P. kialensis* Franch. et *P. sociali* Chen & C. M. Hu sectionis *Aleuritiae* Duby, a priori imprimis scapo nullo, foliis longe petiolatis differt; ab altera statura majore, pedicellis ad 5 cm longis, floribus multo maioribus valde diversa.