



Primulina porphyrea (Gesneriaceae), a new species from southern Hunan, China

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Abstract

A new species of Gesneriaceae, *Primulina porphyrea*, is described and illustrated from southern Hunan, China. The new species resembles *P. polycephala* and *P. yangshuoensis* in leaf blade shape and indumentum of the plants, but it can be easily distinguished by having long petiole and purple leaf abaxial surface, purple corolla lobes and yellow corolla tube with several reddish-purple stripes, dark yellow filaments, and 3 staminodes. It flowers from May to August.

Key words: China, *Chirita*, *Chiritopsis*, IUCN, limestone areas

Introduction

The original genus *Chirita* Buchanan-Hamilton ex D. Don (1822: 83) (Gesneriaceae) included more than 140 species distributed in Bhutan, India, Indonesia, Myanmar, Nepal, southern and southwestern China, the Indochina Peninsula and the Malay Peninsula (Wood 1974, Wang *et al.* 1990, Wang *et al.* 1998, Li *et al.* 2004, Wei *et al.* 2010). According to Wood's classification, the genus can be divided into three sections, *Chirita* sect. *Gibbosaccus* C.B. Clarke (1883: 130), *C. sect. Chirita* Wood (1974: 131) and *C. sect. Microchirita* C.B. Clarke (1883: 127). Recently, a molecular phylogenetic study re-shaped the polyphyletic genus, *Chirita* along with several other associated genera. Consequently, *Chirita* sect. *Gibbosaccus* C.B. Clarke, *Wentsaiboea* D. Fang & D.H. Qin (2004: 533) (only *W. renifolia* D. Fang & D.H. Qin (2004: 533) and *W. luochengensis* Yan Liu & W.B. Xu (2010: 743), but except *W. tiandenensis* Yan Liu & W.B. Xu (2010: 739)) and *Chiritopsis* W.T. Wang (1981a: 21) were transferred to the originally monotypic genus *Primulina* Hance (1883: 169) (Li & Wang 2007, Wang *et al.* 2011, Weber *et al.* 2011). *Primulina* now has become one of the most diverse genera (species richest) of the family, containing at least 170 species, including numerous new species recently published (Wang *et al.* 1998, Wen *et al.* 2012a, Wen *et al.* 2012b, Wu *et al.* 2012a, Wu *et al.* 2012b, Wen *et al.* 2013, Cai *et al.* 2014, Liang *et al.* 2014, Li *et al.* 2014, Zheng & Deng 2014, Zhou *et al.* 2014). Most species in *Primulina* occupy special habitats in the limestone landscape areas of south Asia and most of them are narrowly restricted within few localities with small populations, except a few widespread species, e.g. *P. eburnea* (Hance 1883: 168) Y.Z. Wang (2011: 61), *P. fimbrispala* (Handel-Mazzetti 1925: 65) Y.Z. Wang (2011: 61), *P. obtusidentata* (W.T. Wang 1981b: 57) Mich. Möller & A. Weber (2011: 784), *P. juliae* (Hance 1883: 168) Mich. Möller & A. Weber (2011: 782) and *P. tenuituba* (W.T. Wang 1981a:40) Y.Z. Wang (2011: 62).

Southern Hunan adjoins Guangxi Zhuangzu Autonomous Region which is a distribution center of *Primulina* and resides in the heart of an immense limestone terrain (Xu 1995), and several recently published new species of Gesneriaceae are found here (Wen *et al.* 2013, Cai *et al.* 2014, Li *et al.* 2014). In July, 2010, during the field investigation in Dong'an County, we found some special plants of *Primulina* densely covered with long pubescence and having long petiole. These plants resemble *P. polycephala* (Chun 1946: 299) Mich. Möller & A. Weber (2011: 784) and *P. yangshuoensis* Y.G. Wei & Fang Wen (2012b: 55) in general appearance. Moreover, we continued to track and investigate many times in the wild during 2010 to 2014. Upon further studies of specimens and some literature (Wang *et al.* 1998, Wei *et al.* 2010, Wen *et al.* 2012a, Wen *et al.* 2012b, Wu *et al.* 2012a, Wu *et al.* 2012b, Cai *et al.* 2014, Liang *et al.* 2014, Li *et al.* 2014, Zheng & Deng 2014, Zhou *et al.* 2014), we found that these plants were greatly different from the latter two for its purple leaf abaxial surface, dark yellow filaments and smaller bracts. Therefore, we recognize these plants as a new species, *Primulina porphyrea* X. L. Yu & Ming Li, and describe and illustrate below.