



Primulina guigangensis (Gesneriaceae): a new species from limestone area in Guangxi, China

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Abstract

Primulina guigangensis, a new species found in the limestone area of Guigang city, Guangxi, China is described and illustrated. It is most similar to *Primulina yunfuensis*, but can be distinguished from the latter by several distinct characters in calyx, corolla, filament, stigma and phenology. The detailed morphological characters together with illustrations, diagnostic comparisons and habitat etc. are presented.

Introduction

Chirita, with over 150 species, is a large genus of Gesneriaceae. Most species of the genus have a narrowly restricted distribution in south China, particularly in the limestone areas of Guangxi Zhuang Autonomous Region, where dozens of new species have been discovered and identified recently (e.g. Wei *et al.* 2007, Xu *et al.* 2008, Li & Möller 2009, Huang *et al.* 2010, Li & Zhu 2010, Xu *et al.* 2010, Huang *et al.* 2011, Wu *et al.* 2011, Xu *et al.* 2011a, 2011b). The genus shows large morphological diversity and traditionally has been divided into three or four sections: section *Chirita*, *Microchirita*, *Gibbosaccus* and *Liebigia* (Wood 1974, Wang 1985a, 1985b, Wang *et al.* 1998, Hilliard 2004, Li & Wang 2004). However, recent molecular studies consistently pointed out that the genus and its sections (except *Microchirita*) are not monophyletic and the genus represents several lineages of independent origin (Wang *et al.* 2011, Weber *et al.* 2011). In the light of molecular studies, Weber *et al.* (2011) revised the taxonomy of *Chirita* with its allied genera and classified the species of *Chirita* into 5 different genera, *Henckelia*, *Damrongia*, *Liebigia*, *Microchirita* and *Primulina*, and abandon the genus name of *Chirita*.

Recently, a tourist found a population of *Chirita*-like plants in Zhangmu town, Guigang city, Guangxi, China and resort to us for the identity. After consulting the relevant literature (e.g. Li & Wang 2004, Wei *et al.* 2010) and herbarium specimens, we found the gross morphology of these newly discovered plants to be most similar to *Primulina yungfuensis* (W.T.Wang) Weber (2011: 767), previously *Chirita yungfuensis* Wang (1987: 125), but can be distinguished from that species by several non overlapping or distinct characters in calyx, corolla, filament, stigma and phenotype. Therefore, the population is assumed to represent an undescribed new taxon which we describe here. The characters are described and illustrated below.

Taxonomic Treatment

Primulina guigangensis L.Wu & Q.Zhang, *sp. nov.* (Fig. 1 & Fig. 2 A–H)

Affinis *P. yungfuensis*, a qua pedunculo 8–15 cm longo (vs. 4.5–9 cm), calyce apice acuminato (vs. acuto), corolla 2.8–3.5 cm longa (vs. 3.8–4.6 cm), tubo corollae anguste infundibulari, 1.8–2.5 cm longo (vs. cupiformi, 2.5–3 cm),