



## Article

### Nine new combinations and one new name of *Primulina* (Gesneriaceae) from South China

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#### Abstract

As a consequence of molecular phylogenetic studies, the monotypic genus *Primulina* has recently been recircumscribed and expanded to include *Chirita* sect. *Gibbosaccus*, *Chiritopsis*, and *Wentsaiboea*. Based on phylogenetic analyses of ITS sequences and apparent morphological similarity, we make further transfers of six species of *Chirita* (*C. leprosa*, *C. lijiangensis*, *C. ningmingensis*, *C. luochengensis*, *C. rongshuiensis*, and *C. tiandengensis*) and four of *Chiritopsis* (*Ch. danxiaensis*, *Ch. hezhouensis*, *Ch. jingxiensis*, and *Ch. longzhouensis*) that were neglected or published around or slightly after these recent taxonomic treatments. The proposed nomenclatural changes include one new name, *P. pseudolinearifolia*, and nine new combinations, *P. danxiaensis*, *P. hezhouensis*, *P. jingxiensis*, *P. leprosa*, *P. lijiangensis*, *P. longzhouensis*, *P. ningmingensis*, *P. rongshuiensis*, and *P. tiandengensis*. The addition of these ten species increases the number of the genus to ca. 150 species, making *Primulina* one of the largest and morphologically most diverse genera of the Old World Gesneriaceae.

**Key words:** *Chirita*, *Chiritopsis*, limestone karsts, molecular taxonomy, Old World Didymocarpoideae Gesneriaceae

#### Introduction

The phylogenetic insights brought by molecular data have had profound impacts on the taxonomy of the Old World Gesneriaceae over the past few years (Möller *et al.* 2009, 2011a, 2011b, Wang *et al.* 2011, Weber *et al.* 2011a, 2011b, 2011c). One of the most drastic changes involved the remodeling of *Chirita* Buch.-Ham. ex Don (1825: 89) and associated genera (Wang *et al.* 2011; Weber *et al.* 2011c), resulting in the abandonment of *Chirita* (ca. 150 species) and resurrection and/or new demarcation of *Damrongia* Kerr ex Craib (1918: 364), *Henckelia* Sprengel (1817: 402), *Liebigia* Endlicher (1841: 1407), *Microchirita* (Clarke 1883: 127) Wang in Wang *et al.* (2011: 59) and *Primulina* Hance (1883: 169). Among these genera, the recircumscribed *Primulina* (Wang *et al.* 2011; Weber *et al.* 2011c), previously a monotypic genus including only the highly endangered *P. tabacum* Hance (1882: 169) from southern China (Ren *et al.* 2010), has been expanded to include all species of *Chirita* sect. *Gibbosaccus* Clarke (1883: 130), *Chiritopsis* Wang (1981a: 21), and *Wentsaiboea* Fang & Qin (2004: 533) [but excluding *Wentsaiboea tiandengensis* Liu & Pan in Liu *et al.* (2010: 739)]. Currently the redefined *Primulina* comprises ca. 140 mostly narrowly endemic species (Liu *et al.* 2011, Wang *et al.* 2011, Weber *et al.* 2011c, Hong *et al.* 2012, Huang *et al.* 2012, Li *et al.* 2012, Wen *et al.* 2012a, 2012b, 2012c, Wu *et al.* 2012a, 2012b, Xu *et al.* 2012) found primarily on various landforms of limestone karsts of the Sino-Vietnamese bordering regions (Xu *et al.* 2012), with the center of diversity in Guangxi, South China (Li & Wang 2004, Hou *et al.* 2010, Wei 2010).