Primulina gongchengensis (Gesneriaceae), a new species from Guangxi, China

Yu-Song Huang1, Wei-Bin Xu1,3, Lei Wu1,2 & Yan Liu1,*

1) Guangxi Institute of Botany, Guangxi Zhuang Autonomous Region, Guilin 541006, Guangxi, China (*corresponding author's e-mail: gxibly@163.com)
2) College of Life Sciences, Guangxi Normal University, Guilin 541004, China
3) College of Forestry, South China Agricultural University, Guangzhou 510642, China

Received 5 May 2011, final version received 16 Aug. 2011, accepted 16 Aug. 2011


Primulina gongchengensis Y.S. Huang & Yan Liu (Gesneriaceae) is described and illustrated as a new species from Guangxi, China. It is similar to P. macrodonta, but its leaves are densely glandular-pubescent on both surfaces, with a cuneate or broadly cuneate base and a repand or crenate margin; densely glandular-pubescent petiole and peduncle; purple corolla, with the tube ca. 1.5 cm long, 6–8 mm in diam. at the mouth; ca. 2 mm long, glabrous anthers; 3 staminodes, the lateral ones 1 mm long and the middle one 0.5 mm long; 1.5–1.8 cm long pistil; ca. 4 mm long ovary; and ca. 1 mm long stigma.


Taxonomic treatments of Chirita were provided by Wang et al. (2011) and Weber et al. (2011), and five genera are currently recognized: (1) Henckelia, which only includes the type sections of Chirita (excluding the species placed in Damrongia) and Henckelia (excluding sects. Loxocarpus, Didymanthus, Heteroboea and Glossadenia); (2) Damrongia including presently six species previously placed in Chirita; (3) Microchirita, which includes the species of Chirita sect. Microchirita; (4) Liebigia, including the species of Chirita sect. Liebigia; (5) Primulina, which includes the species of Chirita sect. Gibbosaccus and those previously placed in the genera Chiritopsis, Primulina, and Wentsaiboea (excluding W. tiandengensis).

In the course of a floristic survey of limestone areas in Guangxi, China, in 2010, we discovered a rare plant of Gesneriaceae near the town of Lianhua (Gongcheng County). After consulting national floras and other relevant literature (Fang et al. 1994, Wang et al. 1998, Li & Wang 2004, Wei et al. 2007, Li & Wang 2008, Xu et al. 2008, Li & Möller 2009, Huang et al. 2010a, Huang et al. 2010b, Xu et al. 2011) as well as herbarium specimens, it was concluded that the plants rep-
resent a new species of *Primulina*, which is described here.

**Primulina gongchengensis** Y.S. Huang & Yan Liu, *sp. nova* (Fig. 1)

Affinis *Primulinae* macrodontae D. Fang et D. H. Qin, sed distinguitur foliis utrinque dense glandulosospubescentibus, basi cuneatis late cuneatis, margine repandis crenatis, petiolis pedunculisque dense glandulosospubescentibus; corolla purpurea, tubo ca. 1.5 cm longo, ore 6–8 mm diam., antheris ca. 2 mm longis, glabris; staminodiis 3, eo laterali 1 mm longo, medio 0.5 mm longo; pistillo 1.5–1.5 cm longo, ovario ca. 4 mm longo, stigmate ca. 1 mm longo.

**Type**: China. Guangxi, Guilin city, Gongcheng County, Lianhua town, on rock face, rare, alt. 200 m, 1 July 2010, Yu-Song Huang et Wei-Bin Xu 10496 (holotype IBK; isotype PE). — **Paratype**: China. Guangxi, Gongcheng county, Lianhua town, on rock face, alt. 200 m, 1 July 2010, Yu-Song Huang et Wei-Bin Xu 10500 (IBK).

**Etymology**. The specific epithet is derived from the type locality, Gongcheng County, Guilin City, Guangxi, China.

Herbs perennial. Rhizome subterete, 10–13(15) cm long, 2–2.5 cm across. Leaves
5–10, crowded at apex of rhizome, petiolate; petiole planate, 6–15 cm long, 5–9 mm wide, densely glandular-pubescent; leaf blade herbaceous, rhomboid-ovate or elliptic, 6–20(30) × 3–10(15) cm, apex obtuse or round, base cuneate or broadly cuneate, inequilateral, margin repand or crenate, densely glandular-pubescent on both surfaces, lateral veins 2–3 on each side, impressed adaxially and prominent abaxially. Cymes 4–10, 1–3-branched, 10–20-flowered; peduncle 6–25 cm long, 2.5–3.5 mm across, densely glandular-pubescent; pedicel 1–3 cm long, densely glandular-pubescent; bracts opposite, linear, 10–20 × 2–3.5 mm, margin entire, glandular-pubescent, apex acute, glandular-pubescent on both sides. Calyx 5-parted nearly to base, lobes narrowly lanceolate, 10–15 × ca. 1 mm, outside densely glandular-pubescent, inside sparsely glandular-pubescent. Corolla purple, 2.2–2.8 cm long, outside glandular-pubescent; tube slender, ca. 1.5 cm long, tube base swollen, ca. 3.5 mm in diam., ca. 2.5 mm in diam. in middle, ca. 6–8 mm in diam. at mouth; limb distinctly 2-lipped, adaxial lip 2-lobed to over middle, lobes oblong, apex round, 4–6 × 5–7 mm, abaxial lip 3-lobed to over middle, lobes oblong, apex round, 6–10 × 5–7 mm. Stamens 2, adnate to 9 mm above corolla tube base, filaments ca. 8 mm long, curved at over middle, anthers elliptic or reniform, ca. 2 mm long, glabrous; staminodes 3, lateral ones 1 mm long, adnate to 5 mm above corolla tube base; middle one 0.5 mm long, adnate to corolla tube base. Disc annular, ca. 0.7 mm in height, margin repand. Pistil 1.5–1.8 cm long, ovary ovoid, ca. 4 × 1.5 mm, glandular-pubescent; style glandular-pubescent, 1.2–1.4 cm long; stigma obturpetaliform, ca. 1 mm long, apex 2-lobed. Capsule not seen. Flowering from June to August.

Primulina gongchengensis is similar to *P. macrodonta*, but can be distinguished from it by several characters (Table 1).

**Acknowledgements**

We thank Prof. Fa-Nan Wei (IBK) for the Latin diagnosis, and Mr. Yun-Xi Zhu (IBK) for the illustrations. This study was supported by the Western Program for Fostering Personal Ability, CAS (2007) and the Knowledge Innovation Project of the Chinese Academy of Sciences, grant no. KSCX2-YW-Z-0912 to Yan Liu (IBK).

**References**


---

**Table 1. Morphological comparison of Primulina gongchengensis and *P. macrodonta***

<table>
<thead>
<tr>
<th>Character</th>
<th>Primulina gongchengensis</th>
<th><em>P. macrodonta</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaf surfaces, petiole and peduncle</td>
<td>densely glandular-pubescent</td>
<td>densely jointed villous and glandular-pubescent</td>
</tr>
<tr>
<td>Base of blade</td>
<td>cuneate or broadly cuneate</td>
<td>cordate</td>
</tr>
<tr>
<td>Margin</td>
<td>repand or crenate</td>
<td>dentiform biserrate</td>
</tr>
<tr>
<td>Corolla</td>
<td>purple, tube ca. 1.5 cm long, 6–8 mm in diam. at mouth</td>
<td>white or slightly purple, tube 1.7–2.5 cm long, 10 mm in diam. at mouth</td>
</tr>
<tr>
<td>Anthers</td>
<td>ca. 2 mm long, glabrous</td>
<td>ca. 4 mm long, dorsally bearded</td>
</tr>
<tr>
<td>Staminodes</td>
<td>3, lateral ones 1 mm long, middle one 0.5 mm long</td>
<td>2, 5.5 mm long</td>
</tr>
<tr>
<td>Stigma</td>
<td>ca. 1 mm</td>
<td>ca. 2 mm</td>
</tr>
<tr>
<td>Pistil</td>
<td>1.5–1.8 cm long</td>
<td>ca. 2.1 cm long</td>
</tr>
<tr>
<td>Ovary</td>
<td>ca. 4 mm long</td>
<td>ca. 6 mm long</td>
</tr>
</tbody>
</table>

---


Xu, W. B., Pan, B., Huang, Y. S. & Liu Y. 2011: Chirita lijiangensis (Gesneriaceae), a new species from limestone area in Guangxi, China. — Annales Botanici Fennici 48: 188–190.