

## *Chirita longicalyx* (Gesneriaceae), a new species from Guangxi, China

Jia-Mei Li<sup>1,2</sup> & Yin-Zheng Wang<sup>1,\*</sup>

<sup>1)</sup> State Key Laboratory of Systematic and Evolutionary Botany, Institute of Botany, Chinese Academy of Sciences, 20 Nanxincun, Xiangshan, Beijing, 100093, China (corresponding author's e-mail: wangyz@ibcas.ac.cn)

<sup>2)</sup> Graduate School of the Chinese Academy of Sciences, Beijing, China

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A new species of Gesneriaceae, *Chirita longicalyx* J.M. Li & Y.Z. Wang, is described from Guilin, Guangxi province, China. It resembles *C. depressa* with its short peduncles, but is easily distinguished from the latter by its toothed calyx and densely bearded anthers. It is also morphologically similar to *C. fimbrisepala*, but differs from it in having longer lanceolate-line-bracts and shorter peduncles with flowers hidden by rosette leaves.

Key words: *Chirita*, Gesneriaceae, new species, taxonomy

The genus *Chirita* (Gesneriaceae, Cyrtandroideae, Didymocarpeae) at present consists of over 140 species divided into the sections *Chirita*, *Gibbosaccus* and *Microchirita* (Wood 1974, Wang 1985, 2004, Weber 2004).

The species described in this report belongs to sect. *Gibbosaccus* by having a stout rhizome, leaves crowded in terminal rosettes, pronounced gibbose corollas, and free calyx lobes. Plants in sect. *Gibbosaccus* usually grow horizontally from vertical rock faces and the leaves are arranged in terminal rosettes of very short stems or stout rhizomes. As currently defined, section *Gibbosaccus* contains approximately 100 species, of which 90% occur only on limestone outcrops (Wen *et al.* 1998, Wang 2004).

***Chirita longicalyx* J.M. Li & Y.Z. Wang, sp. nova** (Fig. 1)

*Species nova pedunculis brevibus C. depressae Hook. similis sed calycibus dentatis et antheris longicrinitis ab ea recedens, et C. fimbrisepalae Hand.-Mazz. similis sed a qua differt pedunculis brevioribus atque inflorescentiis obrutis sub foliis.*

TYPE: China. Guangxi, Guilin City, the Seven-star Park, on slope at the base of vertical cliff, 25°17'N, 110°2', 150 m, 2.V.2005 Li Jia-Mei 05523 (holotype PE).

Acaulescent and perennial herb; rhizome internodes inconspicuous. Leaves apparently whorled, ovate to elliptic or oblanceolate,



**Fig. 1.** *Chirita longicalyx* (from the holotype, drawn by A. L. Li). — **A:** Flowering plant. — **B:** Tube of corolla (opened). — **C:** Calyx (opened) and pistil. — **D:** Inflorescence.

8–25 × 3.5–8 cm, apex obtuse or narrowly crenate, margin repand or indistinctly denticulate to sparsely crenate, base broadly cuneate and extended to base of petiole, both surfaces with dense puberulence and lower surface with denser puberulence confined to the veins. Lateral veins 4–6 on each side of midrib, flattened and inconspicuous and green on the upper surface but prominent and purplish red on the lower surface. Petiole absent or 1–7 cm, pubescent. Pair-flowered cymes hidden under leaves, axillary, scapiform, 1–4 on each stem, each with 5–12 flowers, peduncle 1.8–3.5 cm, with dense 2–2.5-mm-long pubescence. Bracts paired, 2.5–3 × 0.15 cm, lanceolate, entire, eglandular hairy. Pedicels 1–1.2 cm, densely hairy. Sepals 5-divided to the base, teeth narrowly lanceolate, 1.5–2.5 × 0.15 cm,

with dense eglandular hairs, teeth 2–5 or absent on upper parts of each side. Corolla light-purple, 5.0–5.6 cm long, sparsely puberulent outside, inside puberulent only on veins where filaments and staminodes fused to a tube, tube 3.8–4.0 cm long, 1.8 cm wide at mouth, slightly pouched, adaxial lobes 2-sect hemicycle, 0.7 cm, forming a subgaleate upper lip, abaxial lobes 3-sect., 1 cm long, oblong; filaments inserted 1.3–1.5 cm from base of corolla, 1.4 cm long, glabrous or sparsely puberulent, geniculate about 0.4 cm above point of attachment, slightly puberulent. Anthers 0.5 cm long, fused face to face, densely bearded on lower margin, staminodes 3, central ca. 0.1 cm long, inserted 2–3 mm from base of corolla, laterals puberulent on lower side, ca. 1–1.2 cm long, inserted 1.2–1.5 cm from base of corolla.

Disc an emarginate ring, 1 mm deep. Gynoecium densely glandular-pubescent, ca. 3.9–4.3 cm long, 2 mm wide basally, narrowing to 1 mm below stigma which is 2-lobed up to over half, 3 mm wide. Capsule elongate, straight or slightly curved, 2.2–2.8 cm long, 0.15 cm wide, densely hairy.

*Chirita longicalyx* is easily distinguished from *C. depressa* by its toothed calyx and densely bearded anthers. It differs from *C. fimbriosepala* in having longer linear-lanceolate bracts and shorter peduncles with flowers hidden by rosette leaves.

It was not surprising that this new species had remained undescribed until now, for it grew sparsely on the soft limestone stalactites at the far end of the famous caves in the Seven-star Park. It was also found growing together with *Chirita eburnea* in crevices at the base of an almost vertical cliff. The difference between the two species was not evident at first sight. Perhaps it had not been distinguished in the field from *C. eburnea*, which grew on the exposed cliff edge.

*Chirita longicalyx* has densely hairy leaves, closely appressed to the rock face. The roots grew in tiny pockets of humus. Closer examination showed that its leaf margin was repand or indistinctly denticulate to sparsely crenate, at base broadly cuneate and extended to the base of the petiole, and both surfaces with dense puberulence. Material was taken for cultivation to the greenhouses at the Institute of Botany, Chinese Academy of Sciences with the assumption that it must be a variety of *C. eburnea*. When the plant flowered, it became clear that was a distinct species. The flowers, which were abundantly produced, were disposed in bibracteate pair-flowered cymes (Weber 1975) with short and stout peduncles so that the flowers appeared nested

amongst the rosette leaves. After careful study and comparison with all the described species and the publications by Wood (1974), Wang *et al.* (1990) and Wang (2004), this new species was confirmed. It was easily grown from fleshy leaves in the greenhouse, but is likely endangered in the wild as there are less than forty individuals.

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