

# *Chirita luochengensis* (Gesneriaceae), a new species from limestone areas in northern Guangxi, China

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**Abstract.** *Chirita luochengensis*, a new species of Gesneriaceae from Guangxi, China, is described and illustrated. The new species is similar to *C. linearifolia* in leaf shape, but can be distinguished by the apex of leaf blade obtuse to round, corolla purplish, 3–4.2 cm long, corolla tube 2–2.5 cm long, 10–15 mm diameter at the mouth, staminodes 3, disc ca. 2.5 mm in height, pistil 2.5–3 cm long, stigma obtrapeziform, 4 mm long, and apex shallowly 2-lobed.

**Key Words:** *Chirita*, limestone flora, new species, taxonomy.

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During fieldwork in May 2006 for the investigation of karst cave plants in Guangxi, China, we found a distinctive population of *Chirita* (Gesneriaceae) from Huaiqun Town, Luocheng County. It was found growing in a crevice of limestone hills. It is similar to *Chirita linearifolia* W. T. Wang in the leaf shape, but was not identified because there were no flowers available at that time (only young fruit). In April 2009, we again visited the locality and collected flowering specimens. After consulting relevant literature (Wang et al., 1998; Li Z.-Y. & Wang, 2004; Liu et al., 2004; Wei et al., 2007; Li J.-M. & Wang, 2008; Xu et al., 2008; Li & Moller, 2009; Pan et al., 2009) as well as herbarium specimens, we believe that it represents an undescribed species in *Chirita*.

***Chirita luochengensis*** Yan Liu & W. B. Xu, **sp. nov.** Type: China. Guangxi: Luocheng County, Huaiqun Town, 25°11'N, 108°24' E, 350 m, 19 April 2009, *Wei-bin Xu & Yan Liu 09383* (holotype: IBK; isotype: PE). (Figs. 1, 2A–D)

*Chirita linearifolia* W. T. Wang similis, sed follis apice obtusis vel rotundatis, corolla pallide purpurea, 3–4.2 cm longa, tubo corollae 2–2.5 cm longo, staminodiis

3, disco circ. 2.5 mm alto, pistillo 2.5–3 cm longo, stigmatibus obtrapezoides, 4 mm longo, apice 2-lobato differt.

Perennial herbs. Rhizome subterete, 4–10 cm long, 0.8–2 cm wide, branched at apex of rhizome. Leaves 8–15, congested at apex of rhizome, subsessile; leaf blade coriaceous, linear (rarely falcate), 3–9 × 0.8–1.5 cm, appressed pubescent on both surfaces, apex obtuse to round, base attenuate, margin entire, lateral veins 3–4 on each side. Cymes 2–5, axillary, 1–3-branched, 4–12-flowered; peduncle 4–8 cm long, ca. 2 mm wide, glandular-pubescent and sparsely pilose; bracts linear-lanceolate, 4–6 × 1–1.5 mm, apex acute, margin entire, pubescent on both surfaces, pedicel 7–15 mm long, ca. 1 mm wide, glandular-pubescent. Calyx 5-parted nearly to the base, 5–6 × ca. 1 mm, lobes linear-lanceolate, abaxially glandular-pubescent, adaxially sparsely glandular-pubescent to glabrous, apex acute, margin entire. Corolla purplish, 3–4.2 cm long, abaxially pubescent, adaxially sparsely pubescent, tube 2–2.5 cm long, 10–15 mm in diam. at the mouth; limb distinctly 2-lipped, upper lip 2-lobed to near middle, lobes ovate, 6–8 × ca. 10 mm, lower lip 3-lobed to near middle, lobes ovate, 10–12 × ca. 8 mm, with 2 yellow

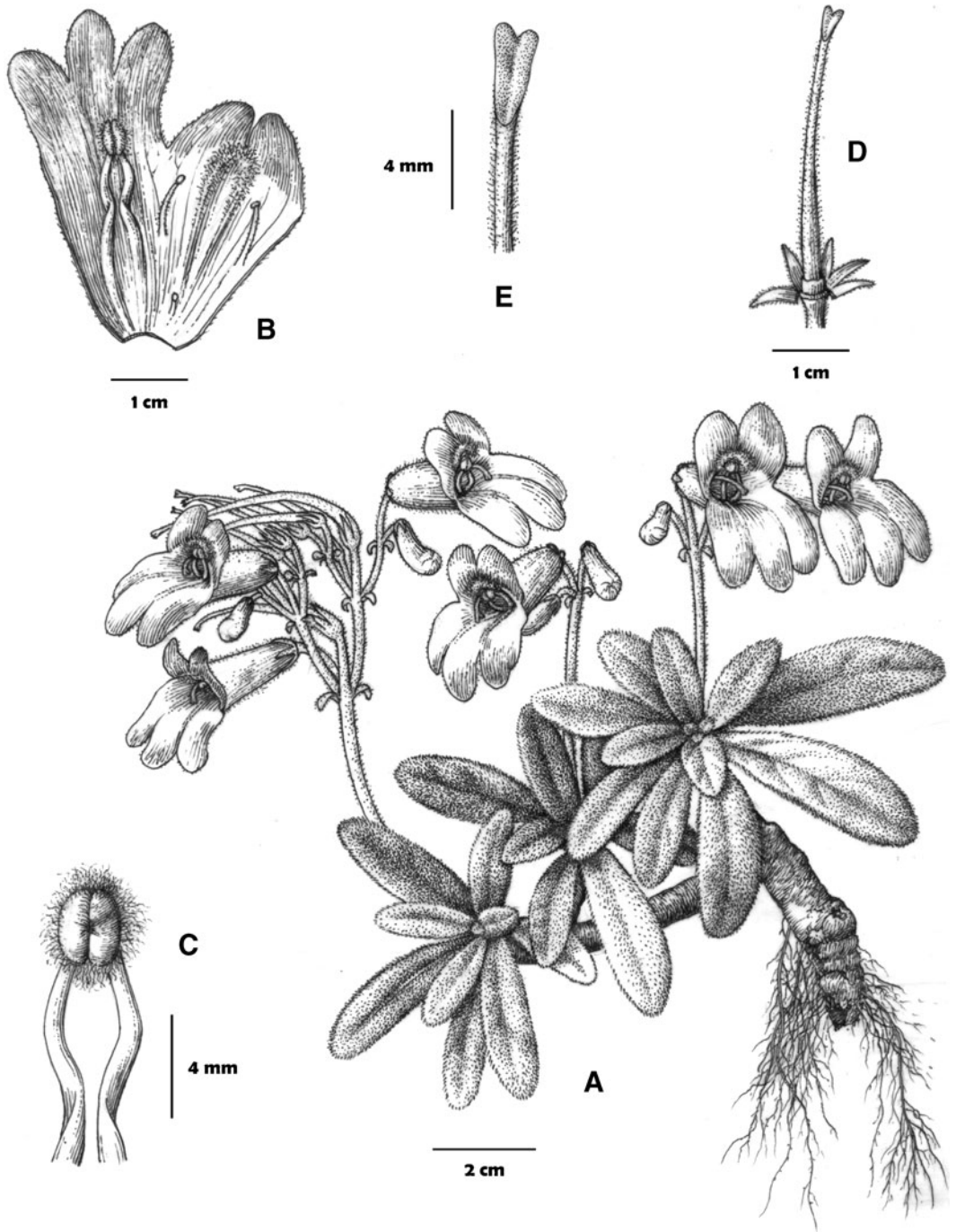


FIG. 1. *Chirita luochengensis*. A. Habit. B. Corolla opened, showing stamens and staminodes. C. Stamens. D. Calyx and pistil. E. Stigma. (Drawn from the holotype.).



FIG. 2. A–D. *Chirita luochengensis*. A. Habitat. B. Habit. C. Flower (face view). D. Flower (side view). E–G. *Chirita linearifolia*. E. Habit. F. Flower (side view). G. Flower (face view).

stripes inside. Stamens 2, adnate ca. 1.3 cm above the corolla base; filaments 10–12 mm long, sparsely geniculate near middle; anthers reniform, ca. 3 mm long, bearded; staminodes 3, lateral ones ca. 7 mm long, apex capitate, sparsely pubescent, adnate to 1.3 cm above the corolla tube base, the adaxial one ca. 3 mm long, apex capitate, adnate to 4 mm above the corolla tube base. Disc ca. 2.5 mm in height, margin repand, glabrous. Pistil 2.5–3 cm long, ovary ca. 1.1 cm long, 3 mm wide, glandular-pubescent; style 1.2–1.5 cm long, 1.5 cm wide, glandular-pubescent; stigma obtrapeziform, 4 mm long, apex shallowly 2-lobed. Mature capsule not seen.

*Phenology*.—Flowering from April to May.

*Etymology*.—The specific epithet is derived from the type locality, Luocheng County, Guangxi.

**Additional specimens examined.** CHINA. Guangxi: Luocheng County, Huaiqun Town, 320 m, 19 Apr 2009, *Wei-bin Xu & Yan Liu 09381* (IBK), 5 May 2006, *Wei-bin Xu & Yan Liu 06044* (IBK).

*Chirita luochengensis* is similar to *C. linearifolia* (Fig. 2E–G) based on the leaf shape, but it can be distinguished by the obtuse to round leaf apex (vs. acute) and the purplish corolla, which is 3–4.2 cm long with the tube 2–2.5 cm long and 10–15 mm in diameter at the mouth (vs. corolla white, ca. 2.4 cm long, with the tube ca. 1.4 cm long and ca. 6.5 mm in diam. at the mouth). In addition, *C. luochengensis* has three staminodes (vs. two), a disc ca. 2.5 mm in height (vs. 0.5 mm in height), the pistil 2.5–3 cm long (vs. 1.6 cm long), and an obtrapeziform stigma that is 4 mm long with a shallowly 2-

lobed apex (vs. 0.5 mm long, with the apex 2-parted to near the base).

### Acknowledgments

The authors are grateful to Prof. Fa-Nan Wei (IBK) for the Latin diagnosis. We also thank Mr. Shun-Qing He (IBK) for preparing the illustration. This study was supported by Western Program for Fostering Personal Ability, CAS (2007) and Knowledge Innovation Project of the Chinese Academy of Sciences, Grant No. KSCX2-YW-Z-0912 to Yan Liu.

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