

## *Primulina fengshanensis* (Gesneriaceae), a new species from Guangxi, China

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*Primulina fengshanensis* Fang Wen & Yue Wang, a new species of Gesneriaceae from Guangxi, is described and illustrated. The new species is compared with the similar *P. linearifolia* and *P. longgangensis*.

The genus *Chirita* in southern China once consisted of over 140 species, especially in the section *Gibbosaccus* (Li & Zhu 2010). However, it was recently revised by Wang *et al.* (2011) and Möller *et al.* (2011). *Chiritopsis*, *Wentsaiboea* and all species of the section *Gibbosaccus* of *Chirita* were incorporated into *Primulina*, which incipiently had only one species, *P. tabacum* (Hance 1883, Wang 1990, Wang *et al.* 1998, Li & Wang 2004, Wei *et al.* 2010).

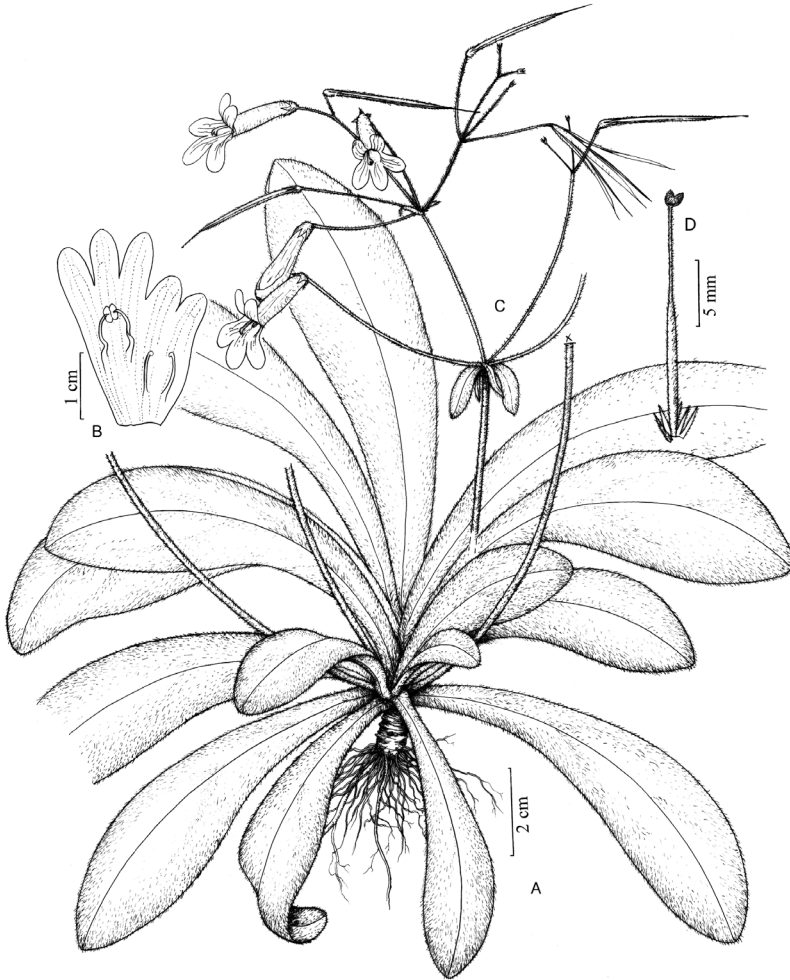
We collected some specimens of an unrecognized *Primulina* species in a limestone cave in northern Guangxi, China, in October 2004. After a thorough consulting of the relevant literature (Wang 1990, Wang *et al.* 1998, Li & Wang 2004, Li *et al.* 2006, Li 2007, Wei *et al.* 2007, Han *et al.* 2008, Li & Wang 2008, Li & Möller 2009, Wen *et al.* 2009, Wei *et al.* 2010, Li & Zhu 2010, Xu *et al.* 2010, Huang *et al.* 2010) as well as herbarium specimens, we concluded that our specimens represent a new species of *Primulina*, which is described and illustrated here.

### *Primulina fengshanensis* Fang Wen & Yue Wang, *sp. nova* (Fig. 1)

TYPE: China. Guangxi Zhuang Autonomous Region, Fengshan County, Hungkun Tong, in a large scale limestone cave, alt. 568–580 m, flowering, 1 Oct. 2004 *F. Wen 06100101* (holotype IBK; isotype IBK, BJFC).

ETYMOLOGY. The specific epithet is derived from the type locality, Fengshan County.

Herbs perennial. Rhizome subterete, 3–10 cm long, 1–1.3 cm in diam., internodes inconspicuous. Leaves 6–21, clustered at apex of rhizome, ternate, sessile; blade fleshy, obovate-elliptical to obovate-lanceolate, 4–15 × 2–3 cm, apex obtuse, elliptic or rotund, base attenuate, margin entire, densely appressed pubescent on both surfaces, lateral veins ca. 3 on each side, unapparent adaxially and slightly prominent abaxially. Cymes 3–8 or more, 2–5-branched, 10–20-flowered or more; peduncle 15–50 cm long, 2–2.5 mm in diam., sparsely appressed pubescent and glandular pilose; bracts 4, pairwise opposite, larger pair



**Fig. 1.** *Primulina fengshanensis* (from the holotype, drawn by A. L. Li). — **A:** Habit. — **B:** Corolla opened with stamens and staminodes. — **C:** Inflorescence with flowers and fruits. — **D:** Calyx and pistil.

oblong-lanceolate, 12–14 × 4.2–4.5 mm, smaller pair linear or linear-lanceolate, 9–10 × 1.2–2.0 mm, all margin entire, larger pair acuminate at apex, smaller pair acute at apex, all outside densely appressed pubescent, all inner nearly glabrous, margin pubescent or ciliate; bracteole 2, opposite, linear, 4–5 × 1 mm, margin entire, acute at apex, hairs same as bracts. Pedicels 1.5–3 cm long, spreading glandular-pubescent. Calyx 5-parted to base, lobes narrow lanceolate, 2.5–3.2 × 0.35–0.52 mm, margin entire, acute at apex, glandular-pubescent outside, glabrous inside. Corolla fuchsia or purple, 2.5–4 cm long, outside short pubescent-glandular, sparsely short pubescent inside; corolla tube funnel-formed, lilac, 2.0–3.0 cm long, 5–9 mm in diam. at mouth; limb distinctly 2-lipped, adaxial 2-lobed to middle, lobes narrowly ovate,

4.5–5 × 2.0–3.0 mm, obtuse at apex, with dark purple lines inside; abaxial lip 3-lobed to or slightly over middle, obtuse at apex, with 3 dark lines inside, lobes ovate-oblong, 5.0–7.0 × 2.5–4.0 mm, rounded at apex, with 3 dark purple stripes inside. Stamens 2, adnate to 1.0–1.2 cm above base of corolla tube, filaments geniculate, 8–9 mm long, glabrous; anthers subreniform, 1.1–1.2 mm long, glabrous, fused face to face. Staminodes 2, 3–5 mm long, glabrous, adnate to 3–4.5 mm above base of corolla tube, turgid and curved at apex. Disc annular, 0.5–0.8 mm high, margin entire. Pistil 1.5–1.9 cm long, ovary linear, 8.5–10 mm long, 0.8–0.9 mm in diam., densely short glandular-pubescent; style 5.3–7.5 mm long; stigma 1.2–1.5 mm long, 2-lobed, lobes narrow triangular or triangular, parted to or over half-length, lobes 1–1.5 mm long, acute or

**Table 1.** Comparison of the diagnostic characters of *Primulina fengshanensis*, *P. linearifolia*, and *P. longgangensis*.

Characters	<i>P. fengshanensis</i>	<i>P. linearifolia</i>	<i>P. longgangensis</i>
Leaf arrangement	ternate	opposite	opposite or ternate
Petiole	sessile	sessile	sessile or petiolate to 10 × 5 mm
Shape of blade	obovate-elliptical to obovate-lanceolate; apex obtuse, elliptic or rotund	linear to narrowly elliptic or narrowly oblong-lanceolate; apex attenuate to acute	narrowly elliptic or narrowly oblanceolate to oblong linear; apex acute to acuminate
Texture of blade	fleshy	leathery	papery to leathery
Indumentum of leaf blade	both surfaces densely appressed pubescent	appressed pubescent, eglandular	densely appressed puberulent and pilose, eglandular
Inflorescence	10–20-flowered	1–7-flowered	2–15-flowered
Bracts	4, pairwise opposite, larger pairs oblong-lanceolate, 1.2–1.4 × 0.42–0.45 cm, smaller pairs linear or linear-lanceolate, 9–10 × 1.2–2.0 mm	2, free, lanceolate to ovate, 4–10 × 1.6–5 mm	2, free, linear to lanceolate or obovate, 4–20 × 0.5–6 mm
Indumentum of bracts	outside densely appressed pubescent, margin pubescent or ciliate	outside puberulent to glabrous	outside pilose to puberulent
Corolla colour	fuchsia or purple, every lobe with 3 dark purple stripes	white or pale pink, lobes colour same as corolla	pink or deep pink, lobes colour same as corolla
Abaxial corolla lobe length	5.0–7.0 mm long	ca. 9 mm	ca. 1.2 cm
Flowering time	Sep.–Oct.	Apr.	Oct.

acuminate at apex. Capsule linear, 3–4 cm long, 2–3 mm in diam., pubescent when young, style persistent, straight.

*Primulina fengshanensis* grows on a moist rock surface in a large limestone cave, alt. 568–580 m in Fengshan County, northern Guangxi Autonomous Region, China. Flowering from September to October. Fruiting from December to January. It is similar to *P. longgangensis* and *P. linearifolia*, but differs e.g. by its fleshy leaves, apex of leaf blades ovate or rotund, and by two pairs bracts and pairwise opposite. A more detailed comparison of these *Primulina* species is given in Table 1.

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