

4. **BEESIA** I. B. Balfour & W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 9: 63. 1915.

铁破锣属 tie po luo shu

Li Liangqian (李良千); Michio Tamura

Herbs perennial. Rhizome robust, creeping or ascending. Leaves 2–4, basal, long petiolate, simple, cordate or cordate-triangular, dentate. Scape simple, with membranous sheath at base. Cyme compound, with 1–3 sessile fascicled flowers at several nodes. Bracts and bracteoles subulate or lanceolate. Flower actinomorphic, opening flat. Sepals 5, petaloid, white, elliptic. Petals absent. Stamens numerous; filaments subfiliform; anthers subglobose. Follicle solitary, long, narrow, flat, with transverse veins. Seeds several, ovoid-globose, rugose.

Two species: China, Myanmar; two species (one endemic) in China.

The rhizomes are used medicinally to treat rheumatic pain, influenza, and swelling.

1a. Leaves reniform, cordate, or orbicular-ovate, margin with 40–50 teeth on each side, teeth relatively small, 2–4

mm wide at base ..... 1. *B. calthifolia*

1b. Leaves cordate-triangular, margin with 7–16 teeth on each side, teeth relatively large, 3–8 mm wide at

base ..... 2. *B. deltophylla*

1. **Beesia calthifolia** (Maximowicz ex Oliver) Ulbrich, Notizbl. Bot. Gart. Berlin-Dahlem 10: 872. 1929.

铁破锣 tie po luo

*Cimicifuga calthifolia* Maximowicz ex Oliver, Hooker's Icon. Pl. 18: t. 1746. 1888; *Beesia cordata* I. B. Balfour & W. W. Smith; *B. elongata* Handel-Mazzetti.

Rhizome to 10 cm, 3–7 mm in diam. Scapes more than 14 cm, to 58 cm at fruiting, basally glabrous, apically densely pubescent. Basal leaves 2–4, long petiolate; petiole (5.5–)10–26 cm, slightly widened, glabrous; leaf blade reniform, orbicular-ovate, or deeply cordate at base, (1.5–)4.5–9.5 × (1.8–)5.5–16 cm, both surfaces glabrous, rarely pubescent abaxially at veins, margin dense with 40–50 teeth on each side, apex rounded, shortly acuminate, or acute. Inflorescence cymose, 5.5–9.5 × 1.5–2.5 cm; bracts usually subulate, sometimes lanceolate, rarely spatulate, 1–1.5 mm, glabrous. Pedicel 5–10 mm, densely spreading pubescent. Sepals white or pinkish, narrowly ovate or elliptic, 3–5(–8) × 1.8–2.5(–3) mm, glabrous, apex acute or blunt. Stamens shorter than sepals; anthers ca. 3 mm in diam. Follicle 1.1–1.7 cm, flat, lanceolate-linear, middle part curved, lower part 3–4 mm wide, sparsely pubescent near base, otherwise glabrous, with ca. 8 obliquely transverse veins; persistent style 1–2 mm. Seeds several, ca. 2.5 mm, obliquely corrugate. Fl. May–Aug, fr. Jul–Sep.  $2n = 16^*$ ,  $32^*$ .

Wet places in valleys, forests; 1400–3500 m. S Gansu, N Guangxi, Guizhou, W Hubei, W Hunan, S Shanxi, Sichuan, NW Yunnan [N Myanmar].

2. **Beesia deltophylla** C. Y. Wu, Fl. Reipubl. Popularis Sin. 27: 604. 1979.

角叶铁破锣 jiao ye tie po luo

Rhizome ca. 4 mm in diam. Scapes more than 14 cm, to 34 cm at fruiting, 1–2 mm in diam., basally subglabrous, apically spreading white pubescent. Basal leaves 2 or 3,

long petiolate; petiole 5.5–14.5 cm, densely spreading white pubescent; leaf blade ovate-triangular, 4–9 × 2.8–5.9 cm, abaxially pale green, glabrous, adaxially green, base deeply cordate, margin sparsely 7–16-dentate on each side, teeth 3–8 mm wide at base, apex acuminate to long acuminate. Inflorescence paniculate-cymose; bracts subulate, 1–4 mm. Flowers 6–7 mm in diam.; pedicel 5–10 mm, densely spreading pubescent. Sepals white, ovate-elliptic, 4–4.5 × 2–2.5 mm, glabrous, apex acute. Stamens shorter than sepals; anthers yellowish. Follicle yellowish brown, ca. 1 cm, flat, lanceolate-linear, sparsely pubescent, with ca. 4 obliquely transverse veins. Seeds several, ca. 2 mm, obliquely corrugate. Fl. Jul, fr. Jul–Sep.  $2n = 16^*$ .

• Forests on slopes; ca. 2300 m. SE Xizang (Mêdog Xian).

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