

**32. CALLIANTHEMUM** C. A. Meyer in Ledebour, Fl. Altaic. 2: 336. 1830.

美花草属 mei hua cao shu

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Herbs perennial, glabrous. Rhizome present. Stems unbranched or branched. Leaves basal, subbasal, or cauline. Inflorescences terminal on stems or branches, 1-flowered. Flowers bisexual. Sepals 5. Petals 5–13, glandular striate, clawed. Stamens numerous; filaments lanceolate-linear; anthers ellipsoid to narrowly oblong. Pistils numerous; ovule 1 per ovary, pendulous. Fruit aggregate. Achenes ovoid to obovoid.

Twelve species: Asia, Europe; five species (two endemic) in China.

1a. Leaves basal or subbasal.

2a. Sepals 8–11 mm; petals 5–6 mm wide ..... 4. *C. farreri*

2b. Sepals 3–6 mm; petals 1–2.5 mm wide ..... 5. *C. pimpinelloides*

1b. Leaves basal and cauline.

3a. Stems 17–30 cm tall; basal leaves fully expanded at anthesis ..... 2. *C. angustifolium*

3b. Stems 4–18 cm tall; basal leaves not fully expanded at anthesis.

4a. Flowers 1.1–1.4 cm in diam. .... 5. *C. pimpinelloides*

4b. Flowers 1.7–2.8 cm in diam.

5a. Basal leaves 3.7–8.8 × 2.2–4.5 cm; petals 5–7 ..... 1. *C. alatavicum*

5b. Basal leaves 1.8–2.5 × 1–2.2 cm; petals 9–13 ..... 3. *C. taipaicum*

**1. *Callianthemum alatavicum*** Freyn, Bull. Herb. Boissier 6: 882. 1898.

厚叶美花草 hou ye mei hua cao

Rhizome 3–4 mm in diam. Stems suberect, 8–18 cm, unbranched or branched once. Basal leaves 3–4, not fully expanded at anthesis; petiole 3.5–10 cm, basally sheathed; leaf blade narrowly ovate to ovate-oblong, 3.7–8.8 × 2.2–4.5 cm, subleathery when dry, with 4 or 5 pairs of lateral leaflets, basal ones with slender petiole, others shortly petiolate; leaflets 2 × pinnately divided; segments sessile, margin 1-toothed or entire, apically cuneiform-obovate. Stem leaves 2 or 3, similar to basal leaves but smaller. Flowers 1.7–2.5 cm in diam. Sepals subelliptic, 7–10 × 4–5 mm. Petals 5–7, white but basally brown, obovate, 0.9–1.4 × 0.8–1.1 cm, apex rounded. Stamens ca. 1/2 as long as petal; anthers narrowly oblong. Aggregate fruit ovoid, 3.5–4 × 2–3 mm, slightly rugose. Fl. May–Jun.

Grassy slopes, mountain valleys; 2600–3400 m. Xinjiang [Kashmir, Mongolia, Pakistan, Russia].

**2. *Callianthemum angustifolium*** Witasek, Verh. K.K. Zool.-Bot. Ges. Wien. 49: 336. 1899.

薄叶美花草 bao ye mei hua cao

Stems 17–30 cm tall, unbranched. Basal leaves 2–4, fully expanded at anthesis; petiole 8.5–22 cm; leaf blade narrowly ovate to oblong, 6–13 × 2.5–4 cm, leathery, with 3 or 4 pairs of lateral leaflets, shortly petiolate; leaflets 2 × pinnately divided; segments lanceolate-linear. Stem leaves 2 or 3; lower ones shortly petiolate, 2.5–5 cm, margin with 1 or 2 pairs of lobes;

upper ones subsessile, 1.2–1.5 cm, plumate. Flowers 2.6–3 cm in diam. Sepals elliptic, ca. 8 × 4.5–6.5 mm. Petals ca. 11, white, obovate-oblong, 1.4–1.6 × 0.5–0.8 cm, apex rounded to retuse. Stamens ca. 1/2 as long as petal; anthers narrowly oblong. Achenes ovoid, ca. 2 mm, rugose. Fl. Jun.

Pine forests; ca. 2200 m. N Xinjiang [Mongolia, Russia].

**3. *Callianthemum taipaicum*** W. T. Wang, Fl. Tsinling 1(2): 604. 1974.

太白美花草 tai bai mei hua cao

Rhizome ca. 4 mm in diam. Stems 1–4, 8–9 cm at anthesis, unbranched or branched once. Basal leaves 3–6, not fully expanded at anthesis; petiole 2–10 cm, basally sheathed; leaf blade narrowly ovate, 1.8–2.5 × 1–2.2 cm, to 6 cm in fruit, deeply parted; leaflets 2 or 3 pairs, 2-parted, apically abaxially glaucous, basal segments sessile, apical ones petiolulate. Stem leaves 1 or 2, 1–2.5 cm. Flowers 2.2–2.8 cm in diam. Sepals bluish purple, subelliptic to lanceolate, 6–9 × 2–3 mm, apex obtuse to acute. Petals 9–13, basally brown, oblanceolate to narrowly obovate, 11–14 × 3.5–6 mm, apex truncate. Stamens 4–5 mm; filaments narrowly linear; anthers narrowly oblong, ca. 0.8 mm. Pistils 18–22. Fl. Jun.

• Grassy slopes; 3400–3600 m. S Shaanxi (Taibai Shan).

This species is used medicinally.

**4. *Callianthemum farreri*** W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 9: 90. 1916.

川甘美花草 chuan gan mei hua cao

*Callianthemum cuneilobum* Handel-Mazzetti

Stem 1, 4–5 cm at anthesis, to 8 cm in fruit, unbranched or basally branched. Leaves few, basal or subbasal, not fully expanded at anthesis; petiole to 10 cm; leaf blade ovate, ca. 1 × 1 cm at anthesis, 2.2–5.5 × 1.6–3 cm in fruit, with 2 or 3 pairs of lateral leaflets; leaflets flabellate, unequally undulate, apically cuneiform to bladderform, apex truncate. Flowers 2.5–3 cm in diam. Sepals pale green or white when dry, 8–11 × 5–6 mm, obovate to rhombic-elliptic. Petals 8 or 9, white with purple spots, narrowly obovate to oblanceolate, 9–12(–15) × 5–6 mm, apex rounded. Pistils ca. 12. Fl. May.

• Forests, grassy slopes; 3500–4000 m. S Gansu, NW Sichuan.

**5. *Callianthemum pimpinelloides*** (D. Don) J. D. Hooker & Thomson, Fl. Ind. 1: 26. 1855.

美花草 mei hua cao

*Ranunculus pimpinelloides* D. Don in Royle, Ill. Bot. Himal. Mts. 1: 53. 1839; *Callianthemum cashmirianum* Cambessèdes; *C. imbricatum* Handel-Mazzetti; *C. tibeticum* Witasek.

Rhizome short. Stems 2 or 3, 3–7 cm tall, erect or ascending, unbranched or 1- or 2-branched. Basal leaves as long as stems, not fully expanded at anthesis; petiole 1.5–6 cm, basally sheathed; leaf blade ovate to narrowly ovate, 1.5–2.5 × 1.4–1.8 cm, with (1 or)2(or)3 pairs of lateral leaflets; leaflets sessile, obliquely ovate to rhombic, deeply undulate, margin with obtuse teeth, apically flabellate to rhombic. Stem leaves absent or 1 or 2. Flowers 1.1–1.4 cm in diam. Sepals elliptic, 3–6 × 1.8–3.5 mm, base scrotiform, apex obtuse to acute. Petals 5–7(–9), white, pink or pale purple, obovate-oblong to broadly linear, 5–10 × 1–2.5 mm, apex rounded. Stamens ca. 1/2 as long as petal; filaments lanceolate-linear; anthers ellipsoid. Pistils 8–14. Aggregate fruit ca. 6 mm in diam. Achenes ovoid, ca. 2.8 mm, rugose. Fl. Apr–Jun.  $2n = 16^*$ ,  $32^*$ .

Grassland on high mountains. 3200–5600 m. Qinghai, Sichuan, Xizang, Yunnan [Afghanistan, Bhutan, India, Kashmir, Nepal, Pakistan, Sikkim].

