

### 1. VERBASCUM Linnaeus, Sp. Pl. 1: 177. 1753.

毛蕊花属 mao rui hua shu

*Celsia* Linnaeus.

Herbs, annual, biennial, or perennial. Leaves usually simple, alternate, basally rosulate. Inflorescences terminal, spicate, racemose, or paniculate. Calyx 5-lobed. Corolla usually yellow, rarely purple or white; tube short; limb rotate; lobes 5, subequal, radiate. Stamens 4 or 5; filaments usually woolly; anthers 1-loculed, confluent, anterior anthers linear-oblong or ± reniform, posterior anthers reniform or transverse. Ovary 2-loculed. Capsule septical. Seeds numerous, conically cylindric, 6–8-ribbed.

About 300 species: Asia, Europe; six species in China.

- 1a. Flowers solitary at each node; plants glandular or eglandular hairy.
  - 2a. Corolla purple; capsule with bulging veins ..... 1. *V. phoeniceum*
  - 2b. Corolla yellow; capsule without bulging veins.
    - 3a. Calyx 5–6 mm; stamens 5 ..... 2. *V. blattaria*
    - 3b. Calyx 3–4.5 mm; stamens 4 ..... 3. *V. chinense*
- 1b. Flowers 2 to several at each node; plants stellate hairy.
  - 4a. Inflorescences spicate ..... 4. *V. thapsus*
  - 4b. Inflorescences paniculate.
    - 5a. Plants sparsely stellate hairy; stem leaves adaxially green ..... 5. *V. chaixii*
    - 5b. Plants densely stellate hairy; stem leaves adaxially not green ..... 6. *V. songaricum*

**1. *Verbascum phoeniceum*** Linnaeus, Sp. Pl. 1: 178. 1753.  
紫毛蕊花 zi mao rui hua

Perennials. Stems 30–100 cm, sometimes branched above middle. Leaves mostly basal; petiole to 3 cm; leaf blade ovate to oblong, 4–10 cm, glabrous or puberulent, base subrounded to broadly cuneate, margin coarsely crenate to shallowly undulate. Stem leaves small and sessile when present. Raceme simple or branched. Rachises, bracts, pedicels, and calyces glandular pilose. Flowers solitary at each node. Pedicel to 1.5 cm. Calyx 4–6 mm; lobes elliptic. Corolla purple, ca. 2.5 cm in diam. Stamens 5; filaments purple woolly; anthers reniform. Capsule ovoid, ca. 6 mm, longer than persistent calyx, apically sparsely glandular-pilose, veins bulging and reticulate. Fl. May–Jun, fr. Jun–Aug.

Grassy areas on mountain slopes; 1600–1800 m. N Xinjiang [Russia; Europe].

**2. *Verbascum blattaria*** Linnaeus, Sp. Pl. 1: 178. 1753.  
毛瓣毛蕊花 mao ban mao rui hua

Annuals or biennials. Stems unbranched, sparsely glandular hairy above. Basal leaves subsessile or basally attenuate as if petiolate; leaf blade oblong, to 10 × 4 cm, margin obtusely serrate to basally pinnately lobed. Stem leaves gradually decreasing in size upward and becoming bracteal; leaf blade oblong-lanceolate, margin irregularly and shallowly toothed. Raceme somewhat branched, to 50 cm. Rachises, pedicels, and calyces glandular pilose. Flowers solitary at each node. Pedicel 5–10 mm. Calyx 5–6 mm; lobes oblong-lanceolate. Corolla yellow; upper lobes 3, woolly at base. Stamens 5; filaments purple woolly; anthers of anterior 2 stamens ± decurrent at base. Capsule ovoid, 7–8 mm, longer than persistent calyx, apically sparsely glandular pilose, apex short beaked. Fl. May–Jun, fr. Jul–Aug.

Grassland along rivers, trailsides; low elevations. N Xinjiang [Russia; Europe].

**3. *Verbascum chinense*** (Linnaeus) Santapau, Fl. Purandhar 90. 1958.

琴叶毛蕊花 qin ye mao rui hua

*Scrophularia chinensis* Linnaeus, Mant. Pl. 2: 250. 1771; *Celsia coromandeliana* Vahl; *Verbascum coromandelianum* (Vahl) Kuntze; *V. sinense* H. Léveillé & Giraud.

Annuals or biennials. Stems 50–100 cm, branched apically, sparsely glandular pilose. Petiole of basal and lower stem leaves 3–8 mm; leaf blade pandurate, 5–8 cm; lobes 3–5, terminal lobe ovate, elliptic, or oblong, margin serrate distally, usually double serrate or lobed proximally. Other stem leaves short petiolate or sessile; leaf blade ovate, elliptic, or ovate-triangular. Raceme to 20 cm, simple or branched. Rachises, bracts, pedicels, and calyces glandular pilose. Flowers solitary at each node. Pedicel to 5 mm, elongating to 1 cm in fruit. Calyx 3–4.5 mm; lobes elliptic-oblong. Corolla yellow, ca. 1 cm in diam. Stamens 4, didynamous; filaments woolly; anthers reniform. Capsule ovoid, 6–7 mm longer than persistent calyx, glandular. Fl. and fr. Mar–Aug.

Sandy areas along rivers; 100–1300 m. Guangxi, Sichuan, Yunnan [Afghanistan, Cambodia, India, Kashmir, Laos, Pakistan, Sri Lanka, Thailand].

**4. *Verbascum thapsus*** Linnaeus, Sp. Pl. 1: 177. 1753.  
毛蕊花 mao rui hua

Biennials to 1.5 m tall, densely with grayish yellow stellate hairs. Basal and lower stem leaves petiolate; leaf blade oblanceolate-oblong, to 15 × 6 cm, margin crenate. Other stem leaves gradually decreasing in size upward, sessile, oblong to ovate-oblong, base decurrent into wings. Spicate panicle cylindric, to 30 × 2 cm,

dense. Flowers usually few fascicled. Pedicel short. Calyx ca. 7 mm; lobes lanceolate. Corolla yellow, 1–2 cm in diam. Stamens 5; filaments of anterior 2 stamens glabrous and of posterior 3 pubescent; anther lobes divergent at base. Capsule ovoid, as long as persistent calyx. Fl. Jun–Aug, fr. Jul–Oct.

Grassy areas on mountain slopes, along rivers; 1400–3200 m. Jiangsu, Sichuan, Xinjiang, Xizang, Yunnan, Zhejiang [Asia and Europe, naturalized throughout the Northern Hemisphere].

**5. *Verbascum chaixii*** Villars subsp. **orientale** (M. Bieberstein) Hayek, Repert. Spec. Nov. Regni Veg. Beih. 30(2): 127. 1929.

东方毛蕊花 *dong fang mao rui hua*

*Verbascum orientale* M. Bieberstein, Fl. Taur.-Caucas. 1: 160. 1808.

Perennials, to 1.2 m tall. Stems white-stellate hairy. Petiole of basal leaves 5–25 cm; leaf blade oblong-ovate, 20–30 × 4–12 cm, margin obtusely crenate, apex obtuse to ± acute. Petiole of lower stem leaves to 7 cm below, decreasing in size to sessile upward; leaf blade oblong-lanceolate, 10–18 × 4–5 cm, abaxially densely pubescent, adaxially sparsely pilose to subglabrous and green, margin irregularly obtusely toothed. Panicles to 30 cm. Flowers 2–7-fascicled. Pedicel unequal in length, 1–15 mm, densely stellate pilose. Calyx 4–5 mm, densely stellate pilose; lobes lanceolate to ovate-lanceolate. Corolla yellow, 2–2.5 cm in diam., stellate pilose outside. Stamens 5; filaments with purple hairs; anthers reniform. Capsule ovoid, slightly longer than persistent calyx, densely stellate pilose. Fl. and fr. Jun–Aug.

Grassy areas in mountain valleys, gravelly places in river valleys; 1200–1900 m. Xinjiang [Kazakhstan, Kyrgyzstan, Russia].

*Verbascum chaixii* subsp. *chaixii* grows in Europe.

**6. *Verbascum songaricum*** Schrenk in Fischer & C. A. Meyer, Enum. Pl. Nov. 1: 26. 1841.

准噶尔毛蕊花 *zhun ga er mao rui hua*

Perennials, to 1.5 m tall, densely with grayish stellate hairs. Petiole of basal leaves to 10 cm; leaf blade oblong to oblanceolate, ca. 25 × 8 cm, densely grayish pubescent on both surfaces, base tapering, margin shallowly crenate. Stem leaves sessile, lanceolate to oblong, base of lower leaves broadly cuneate and of upper leaves subcordate. Panicles to 40 cm. Flowers 2–7-fascicled. Pedicel to 6 mm. Calyx and corolla densely grayish stellate hairy outside. Calyx ca. 6 mm; lobes lanceolate. Corolla yellow, 1.5–2 cm in diam. Stamens 5; filaments white woolly hairy; anthers reniform. Capsule globose-ovoid to ellipsoid-ovoid, nearly as long as persistent calyx, densely stellate hairy. Fl. Jun, fr. Aug.

Grassy or wet areas beside fields; 400–600 m. Xinjiang (Tacheng Xian) [Kazakhstan, Russia (Siberia), Tajikistan, Turkmenistan, Uzbekistan; SW Asia].

