

12. **HALENIA** Borkhausen in Roemer, Arch. Bot. (Leipzig) 1(1): 25. 1796.

花锚属 hua mao shu

Herbs annual [or perennial]. Roots slender, fibrous. Sometimes with elongated rhizomes. Leaves opposite [or whorled]. Inflorescences terminal and axillary, in clusters or sometimes in lax panicles of cymes. Terminal clusters umbel-like, subtended by a whorl of 4 leaves, often on short axillary branches. Flowers 4-merous. Calyx lobed nearly to base. Corolla campanulate, lobed to below middle, with spurs near base of corolla tube. Stamens inserted on corolla tube. Ovary 1-celled. Style very short. Stigma 2-lobed. Capsules ovoid, 2-valved, 1.1–1.3 cm, many seeded. Seeds ellipsoid to subglobose; seed coat almost smooth.

About 100 species: mainly in America, a few species in Asia and Europe; two species in China.

- 1a. Corolla yellow; calyx lobes linear-lanceolate ..... 1. *H. corniculata*
- 1b. Corolla blue to purple; calyx lobes elliptic to ovate ..... 2. *H. elliptica*

**1. Halenia corniculata** (Linnaeus) Cornaz, Bull. Soc. Neu-châtelaise Sci. Nat. 25: 171. 1897.

花锚 hua mao

*Swertia corniculata* Linnaeus, Sp. Pl. 1: 227. 1753; *Halenia deltoides* Gandoger; *H. fischeri* Graham; *H. japonica* Gandoger; *H. siberica* Borkhausen.

Plants 10–80 cm tall. Stems erect, subquadrangular, striate, simple or branched from base and/or above base. Basal leaves usually withered at anthesis; petiole flattened, 1–1.5 cm; leaf blade elliptic to obovate, 1–3 cm × 5–8 mm, base cuneate, apex rounded. Stem leaves sessile or short petiolate; leaf blade elliptic-lanceolate to ovate, 3–8 × 1–1.5 cm, densely papillate when young, abaxially hispidulous along veins, adaxially becoming smooth, base obtuse to subrounded, apex acuminate, veins 3. Pedicel 0.5–3 cm. Calyx lobes linear-lanceolate, 5–8 × 1–1.5 mm, margin hispid-ciliate, apex acuminate. Corolla yellow, campanulate, 1.1–1.4 cm in diam. including spurs; tube 4–5 mm, base with 4–8 mm spurs; lobes elliptic to ovate, 5–7 × 3–5 mm, apex obtuse and apiculate. Filaments 2–3 mm; anthers subglobose, ca. 0.8 mm in diam. Seeds brown, 1–1.4 × ca. 1 mm. Fl. and fr. Jul-Sep.

Grasslands, forest margins, forests; 200–1800 m. Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Shaanxi, Shanxi [Japan, Korea, Mongolia, Russia].

**2. Halenia elliptica** D. Don, London Edinburgh Philos. Mag. & J. Sci. 8: 77. 1836.

椭圆叶花锚 tuo yuan ye hua mao

Plants (7–)15–90 cm tall. Stems erect, subquadrangular, striate, simple or branched from base and/or above base. Basal leaves petiole flattened, 1–1.5(–3) cm; leaf blade spatulate, elliptic, or sometimes suborbicular, 2–3 × 0.5–1.5 cm, base narrowed to cuneate, apex acute to rounded, veins 3–5. Stem leaves sessile or short petiolate; leaf blade oblong, elliptic, ovate-lanceolate, or ovate, 1.5–7 × 0.5–3.5 cm, base rounded to truncate, apex acute to rounded, veins 5. Pedicel 0.5–3.5 cm. Calyx lobes elliptic to ovate, apex acuminate. Corolla blue to purple, campanulate, 1–2.5 cm, basal spurs 5–10(–14) mm; lobes elliptic to ovate, apex obtuse and apiculate. Filaments 3–5 mm; anthers ovoid, ca. 1 mm. Seeds light brown, ca. 2 × 1 mm. Fl. and fr. Jul-Sep.

700–4100 m. Gansu, Guizhou, Hubei, Hunan, Liaoning, Nei

Mongol, Qinghai, Shaanxi, Shanxi, Sichuan, Xinjiang, Xizang, Yunnan [Bhutan, India, Kyrgyzstan, Myanmar, Nepal, Sikkim].

- 1a. Corolla including spurs 1–1.5 cm in diam. .... 2a. var. *elliptica*
- 1b. Corolla including spurs ca. 2.5 cm in diam. .... 2b. var. *grandiflora*

**2a. Halenia elliptica** var. **elliptica**

卵萼花锚 luan e hua mao

*Halenia vaniotii* H. Léveillé.

Calyx lobes 4–6 × 2–3 mm. Corolla 1–1.5 cm in diam., lobes ca. 6 × 4–5 mm.

Beside streams in valleys, grassland slopes, scrub, forest margins, forests; 700–4100 m. Gansu, Guizhou, Hubei, Hunan, Liaoning, Nei Mongol, Qinghai, Shanxi, Xinjiang, Xizang, Yunnan [Bhutan, India, Kyrgyzstan, Myanmar, Nepal, Sikkim].

**2b. Halenia elliptica** var. **grandiflora** Hemsley in F. B. Forbes & Hemsley, J. Linn. Soc., Bot. 26: 141. 1890.

大花花锚 da hua hua mao

Corolla ca. 2.5 cm in diam.

• Beside streams, grassland slopes; 1300–2500 m. Gansu, Guizhou, Hubei, Qinghai, Shaanxi, Sichuan, Yunnan.

