

6. HYOSCYAMUS Linnaeus, Sp. Pl. 1: 179. 1753.

天仙子属 tian xian zi shu

Herbs annual, biennial, or perennial, erect or sprawling; pubescence of simple glandular hairs. Leaves sometimes forming a rosette, short petiolate or sessile; leaf blade sinuate, coarsely dentate or pinnately lobed, rarely entire. Inflorescences of solitary axillary flowers, sometimes condensed into scorpioid racemes or spikes. Flowers 5-merous, zygomorphic, sessile or short pedicellate. Calyx tubular-campanulate, urceolate, or obconical, becoming enlarged, lobes erect or spreading, needlelike. Corolla campanulate or funnellform, lobes unequal. Stamens inserted in corolla tube, usually slightly exerted; anthers dehiscent longitudinally. Disc sometimes indistinct. Ovary 2-locular; ovules numerous. Fruiting calyx enveloping and longer than capsule, lobes with strong marginal veins produced into mucros. Capsules dehiscent by an operculum slightly distal to middle. Seeds reniform or discoid, minutely pitted; embryo ringlike or coiled.

About 20 species: N Africa, Asia, Europe; two species in China, also cultivated.

- 1a. Fruiting calyx urceolate, lobes mostly erect; flowers 2–3 cm; corolla campanulate, twice as long as calyx 1. *H. niger*
- 1b. Fruiting calyx tubular-funnelform, lobes spreading; flowers 1–1.5 cm; corolla funnellform, slightly exceeding calyx 2. *H. pusillus*

1. *Hyoscyamus niger* Linnaeus, Sp. Pl. 1: 179. 1753.

天仙子 tian xian zi

Hyoscyamus agrestis Kitaibel ex Schultes; *H. bohemicus* F. W. Schmidt; *H. niger* var. *annuus* Sims; *H. niger* var. *chinensis* Makino.

Herbs biennial, to 1 m tall, pubescent throughout with sticky glandular hairs. Roots sometimes stout, fleshy, 2–3 cm in diam. Leaves sessile, sometimes forming a rosette; blade of rosette leaves ovate-lanceolate or oblong, ca. 30×10 cm, coarsely dentate or pinnately lobed or parted, apex acute; blade of cauline leaves ovate or deltate-ovate, 4–10×2–6 cm, pubescent with sticky hairs, nearly clasping or broadly cuneate at base, lobed or entire. Flowers subsessile or on pedicels 3–5 mm. Calyx tubular-campanulate, 1–1.5 cm; lobes deltate, unequal, acute. Corolla pale yellow, usually with purple veins, campanulate, 2–3 cm. Stamens exerted. Fruiting calyx urceolate, 2–2.5×1–1.5 cm; lobes mostly erect, tipped with a sharp tooth. Capsules ovoid-rounded, ca. 1.5×1.2 cm. Seeds yellow-brown, discoid, ca. 1 mm in diam. Fl. May-Aug, fr. Jul-Oct.

Slopes, near roads, sands by rivers, rich humus soils near villages and houses, occasionally cultivated; 700–3600 m. Gansu, Guizhou, Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xinjiang, Yunnan [Afghanistan, India, Japan, Kazakhstan, Korea, Kyrgyzstan, Nepal, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan; SW Asia, N. Africa, Europe].

Alkaloids (hyoscyamine and scopolamine) contained in the roots, leaves, and seeds, are used as an anaesthetic and for relieving muscular spasm and pain. The seed oil can be used for soap making.

2. *Hyoscyamus pusillus* Linnaeus, Sp. Pl. 1: 180. 1753.

中亚天仙子 zhong ya tian xian zi

Herbs annual, 6–35(–60) cm tall. Roots slender, woody. Stems prostrate or erect, branched or unbranched near base, mostly glandular pubescent, sometimes glabrescent. Leaf blade lanceolate, elliptic, or oblong, 3–10×0.5–3 cm, base decurrent, margin entire or dentate, sometimes pinnatifid or pinnatisect, with 2–4 pairs of deltate lobes, apex obtuse or acuminate. Flowers solitary, axillary, subsessile or on pedicels 3–5 mm. Calyx tubular-funnelform, 0.8–1.3 cm; lobes deltate, needlelike. Corolla yellow with a dark purple throat, funnellform, slightly longer than calyx. Stamens included. Fruiting calyx inflated, tubular-funnel form, 2–2.5 cm; lobes spreading. Capsules cylindric, ca. 7 mm. Seeds compressed reniform, ca. 1 mm. Fl. Apr-Jun, fr. Jun-Aug.

Dry gritty hills, edges of sand dunes, clay soils of wastelands, riversides, lake shores. Xinjiang, W Xizang [Afghanistan, India, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan; SW Asia].

