

9. SAGINA Linnaeus, Sp. Pl. 1: 128. 1753.

漆姑草属 qi gu cao shu

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Herbs annual, biennial, or perennial, small. Stems often caespitose, procumbent or ascending, slender. Leaves linear or subulate, basally connate; stipules absent. Flower solitary, axillary or terminal, rarely in cymes, small, pedicellate; bracts immediately subtending calyx absent. Sepals 4 or 5. Petals 4 or 5, sometimes absent, white, usually shorter than sepals, rarely equal, margin entire, rarely slightly emarginate. Stamens 4 or 5, sometimes 8 or 10. Ovary 1-loculed; ovules numerous; styles 4 or 5, alternating with sepals. Capsule ovoid to globose, 4- or 5-valved; valves opposite sepals. Seeds numerous, reniform, minute, tuberculate or smooth; embryo curved.

About 30 species: mainly in N temperate regions, a few species in the subtropics; four species in China.

- 1a. Flowers 4-merous; seeds grooved 1. *S. procumbens*
- 1b. Flowers 5-merous; seeds grooved or not.
 - 2a. Pedicel and sepals without glandular hairs; seeds reniform-triangular, grooved 2. *S. saginoides*
 - 2b. Pedicel and sepals glandular pubescent; seeds reniform-globose, not grooved.
 - 3a. Seeds sharply tuberculate 3. *S. japonica*
 - 3b. Seeds with short linear striae 4. *S. maxima*

1. *Sagina procumbens* Linnaeus, Sp. Pl. 1: 128. 1753.

仰卧漆姑草 yang wo qi gu cao

Herbs perennial. Stems ascending or procumbent, 3–10 cm tall, slender, branched, glabrous. Leaves linear, 2–10 × 1–2 mm, shortly aristate, glabrous or ciliate. Flower solitary, terminal or axillary. Pedicel recurved after anthesis, erect in fruit, slender. Sepals 4, broadly ovate, 1.5–2 mm, margin white, apex obtuse. Petals 4, ovate, shorter than sepals. Stamens 4 (rarely 8). Styles 4. Capsule ovoid, longer than sepals, 4-valved. Seeds black-brown, triangular, grooved, smooth. Fl. Jul–Aug, fr. Sep–Oct. $2n = 22$.

Mire meadows, forest margins; ca. 4200 m. Xinjiang [Afghanistan, N India (Darjiling), Philippines, Russia, ?Sikkim; W Asia, Europe].

2. *Sagina saginoides* (Linnaeus) H. Karsten, Deut. Fl. 539. 1882.

无毛漆姑草 wu mao qi gu cao

Spergula saginoides Linnaeus, Sp. Pl. 1: 441. 1753;
Sagina linnaei C. Presl.

Herbs perennial. Stems caespitose, ca. 7 cm tall, glabrous. Leaves linear or subulate, 5–15 × ca. 1 mm, glabrous. Flower solitary, terminal. Pedicel recurved after anthesis, erect in fruit, (0.6–)1.5–3 cm. Sepals 5, ovate-oblong, 1.5–3 × ca. 1.5 mm, apex obtuse. Petals 5, ovate, shorter than sepals. Stamens (5 or)10. Styles 5. Capsule conical-ovoid, 3–5 mm, ca. 2 × as long as appressed sepals, shiny, 5-valved. Seeds brown, reniform-triangular, ca. 0.3 mm, grooved, ?sharply tuberculate. Fl. May–Jul, fr. Jul–Aug. $2n = 22$.

Rocky mountain slopes, mire meadows, scrub, wet river banks; 1400–4200 m. Nei Mongol, Qinghai, Sichuan, Xinjiang, Xizang, Yunnan [Bhutan, India, Japan, Kazakhstan, Korea, Nepal, Pakistan, Russia, Sikkim, Vietnam; SW Asia, Europe, North America].

This species is used medicinally.

3. *Sagina japonica* (Swartz) Ohwi, J. Jap. Bot. 13: 438. 1937.

漆姑草 qi gu cao

Spergula japonica Swartz, Ges. Naturf. Freunde Berlin Neue Schriften 3: 164. 1801.

Herbs annual or biennial. Stems tufted, suberect or creeping, 5–20 cm tall, slender, basally branched, apically glandular hairy. Leaves linear, 5–20 × 0.8–1.5 mm, glabrous, connate at base, acute and minutely spine tipped. Flower solitary, terminal or axillary. Pedicel erect, 1–2 cm, sparsely pubescent. Sepals 5, ovate-elliptic, ca. 2 mm, glandular hairy, apex obtuse. Petals 5, ovate, slightly shorter than sepals, apex rounded. Stamens 5. Ovary ovoid; styles 5. Capsule globose, slightly longer than sepals, 5-valved. Seeds brown, reniform-globose, not grooved, sharply tuberculate. Fl. Apr–May, fr. May–Jun. $2n = 46, 64$.

Sandy riversides, uncultivated farmland, roadside grasslands, forests, streamsides, floodlands; (100–)600–1900(–4000) m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Liaoning, Nei Mongol, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [Bhutan, India, Japan, Korea, Nepal, Russia, Sikkim].

This species is used medicinally.

4. *Sagina maxima* A. Gray, Mem. Amer. Acad. Arts, n.s., 6: 382. 1859.

根叶漆姑草 gen ye qi gu cao

Sagina litoralis Hultén.

Herbs annual, sometimes perennial. Stems caespitose, erect or ascending, 4–8 cm tall, slender, basally branched, glabrous. Leaves linear, 4–6 × 0.7–1 mm, apex acuminate. Flower solitary, axillary. Pedicel slightly recurved after anthesis, erect in fruit, 4–25 mm, somewhat glandular hairy. Sepals 5, elliptic, 2–2.5 mm, abaxially glandular hairy. Petals 5, broadly ovate, slightly shorter than or subequaling sepals, basally clawed. Stamens 5. Styles 5. Capsule ovoid, longer than sepals, 5-valved. Seeds brown, reniform-globose, ca. 0.5 mm, not grooved, with short linear striae. Fl. Jul–Aug, fr. Aug–Sep. $2n = 22, 44$.

Fields, rocky mountain slope meadows. Anhui, Liaoning, Sichuan, Taiwan, Xinjiang [Japan, Korea, Russia; North America].

Chinese plants belong to subsp. *maxima*.

