

**38. ASPERUGO** Linnaeus, Sp. Pl. 1: 138. 1753.

糙草属 cao cao shu

Herbs annual, climbing, hispid. Leaves alternate. Pedicel short or absent. Flowers solitary or fascicled at leaf axils. Calyx 5-parted, 2-dentate between lobes, strongly enlarged in fruit, bilaterally compressed, becoming somewhat clamshell-shaped, with distinct reticulate venation, irregularly emarginate-serrate; lobes unequal. Corolla violet or white, tubular; throat appendaged; limb 5-parted. Stamens included; filaments extremely short; anthers short oblong. Ovary 4-parted. Style included; stigma capitate. Gynobase subulate. Nutlets nearly flat, bilaterally compressed, densely white tuberculate, apex obtuse; attachment scar near apex adaxially. Seeds vertical; cotyledons ovate, complanate.

One species: Asia, Europe.

**1. *Asperugo procumbens*** Linnaeus, Sp. Pl. 1: 138. 1753.

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Stem slender, to 90 cm tall, hollow, with 5 or 6 longitudinal ribs, glochidiate along ribs, usually branched. Lower stem leaves petiolate, spatulate or narrowly oblong, 5–8 × 0.8–1.5 cm, sparsely minutely hispid, margin entire or finely dentate; upper stem leaves sessile, becoming gradually smaller and subopposite. Pedicel short or absent. Calyx ca. 1.6 mm, parted to below middle, minutely hispid; lobes somewhat unequal, linear-lanceolate, to 8 mm wide after anthesis. Corolla blue, ca. 2.5 mm; tube longer than limb; throat appendages tuberclelike; lobes of limb somewhat unequal, broadly ovate to ovate. Anther ca. 0.6 mm. Style ca. 0.8 mm, included. Nutlets narrowly ovoid, ca. 3 mm; attachment scar orbicular. Fl. and fr. Jul-Sep.  $2n = 48$ .

Hillside meadows, near villages, field margins; above 2000 m. Gansu, Nei Mongol, Qinghai, N Shaanxi, Shanxi, Sichuan, Xinjiang, NE Xizang [N India, Kashmir, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Russia, Tajikistan, Turkmenistan, Uzbekistan; N and NW Africa, SW and W Asia, Europe].

