

46. **THYROCARPUS** Hance, Ann. Sci. Nat. Bot., ser. 4. 18: 225. 1862.

盾果草属 *dun guo cao shu*

Herbs annual. Leaves alternate, sessile or short petiolate. Cymes bracteate. Calyx 5-parted to base, slightly enlarged in fruit. Corolla campanulate; throat appendages 5, broadly linear to subulate; limb 5-parted; lobes broadly ovate. Stamens inserted at middle of corolla tube, included; filaments short; anthers ovoid to oblong. Ovary 4-parted. Style included; stigma terete. Gynobase conical. Nutlets ovoid, slightly dorsiventrally compressed, densely tuberculate; disc margin 2-layered, inside layer membranous and entire, outside layer leathery and pectinate-dentate; attachment scar at apex adaxially. Seeds ovoid, dorsiventrally compressed.

About three species: China, Vietnam; two species in China.

- 1a. Stem leaves ovate to narrowly elliptic; corolla and calyx equal in length; teeth of outside layer of nutlet straight, not inflated at apex, inside layer not constricted inward 1. *T. sampsonii*
- 1b. Stem leaves narrowly oblong to oblanceolate; corolla longer than calyx; anthers ovate-oblong; teeth of outside layer of nutlet distinctly inflated at apex and incurved, inside layer constricted inward 2. *T. glochidiatus*

1. **Thyrocarpus sampsonii** Hance, Ann. Sci. Nat. Bot., ser. 4. 18: 225. 1862.

盾果草 *dun guo cao*

Bothriospermum majusculum (Hayata) Suzuki; *B. tenellum* (Hornemann) Fischer & C. A. Meyer var. *majusculum* Hayata.

Stems single to several, erect to ascending, frequently branched below, 20–45 cm tall, spreading hirsute, minutely hispid. Basal leaves short petiolate, spatulate, 3.5–19 × 1–5 cm, hirsute, minutely hispid, hairs discoid at base, margin entire or sparsely serrulate; stem leaves sessile, narrowly oblong to oblanceolate, smaller. Cymes axillary or extra-axillary, 7–20 cm; bracts narrowly ovate to lanceolate. Pedicel 1.5–3 mm. Calyx ca. 3 mm; lobes narrowly elliptic, spreading minutely hispid outside, short appressed pubescent. Corolla light blue or white, longer than calyx; tube ca. 2/5 as long as limb; throat appendages linear, ca. 0.7 mm, fleshy, papillose, emarginate at apex; limb 5–6 mm wide; lobes spreading, suborbicular. Filaments ca. 0.3 mm; anthers ovate-oblong, ca. 0.5 mm. Nutlets 4, black-brown, ca. 2 mm, outside layer of disc margin pale, teeth straight and not inflated, inside layer margin not inwardly constricted. Fl. and fr. May-Jul.

Slopes, thickets. Anhui, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan, Zhejiang [Vietnam].

2. **Thyrocarpus glochidiatus** Maximowicz, Bull. Acad. Imp. Sci. Saint Pétersbourg 26: 499. 1880.

弯齿盾果草 *wan chi dun guo cao*

Stems single to several, slender, ascending or decumbent, frequently branched below, 10–30 cm tall, spreading hirsute and minutely hispid. Basal leaves short petiolate, spatulate to narrowly oblanceolate, 1.5–6.5 cm × 3–14 mm, hispid, hairs discoid at base; stem leaves sessile, ovate to narrowly elliptic, smaller. Cymes axillary or extra-axillary, to 15 cm; bracts ovate to lanceolate, 0.5–3 cm. Pedicel 1.5–4 mm. Calyx ca. 3 mm; lobes narrowly elliptic to ovate-lanceolate, pubescent, apex obtuse. Corolla light blue or

white, ca. as long as calyx; tube ca. 2/3 as long as limb; throat appendages linear, ca. 1 mm, apex truncate or emarginate; limb ca. 2 mm wide; lobes slightly spreading, obovate to suborbicular. Anthers broadly ovate, ca. 0.4 mm. Nutlets 4, black-brown, ca. 2.5 mm, margin of outside layer of disc pale, teeth inflated at apex and incurved, margin of inside layer distinctly inwardly constricted. Fl. and fr. Apr-Jun.

• Meadows, field margins, roadsides. Anhui, Gansu, Guangdong, Henan, Jiangsu, Jiangxi, Shaanxi, N Sichuan.

