

2. EVOLVULUS Linnaeus, Sp. Pl. ed. 2. 391. 1762.

土丁桂属 tu ding gui shu

Herbs, subshrubs, or shrubs. Stems never twining. Leaves petiolate or sessile; leaf blade entire. Flowers 1 to few, pedicellate or sessile in leaf axils, or several in terminal spikes or capitula; bracts tiny. Sepals free, equal or subequal. Corolla rotate, funnellform, or salverform; limb ± entire to 5-lobed, midpetaline bands often pilose outside. Stamens included or exerted; pollen globose, rugate, not spiny. Disc cupular or absent. Ovary glabrous or pilose, 2-loculed; ovules 2 per locule. Styles 2, filiform, free or united basally, each 2-cleft; stigma filiform, terete or slightly clavate. Capsule globose or ovoid, usually 4-valved. Seeds 1–4, smooth or minutely tuberculate, glabrous.

About 100 species: all native to North America (S United States) and South America, with two widely naturalized in the tropical and subtropical regions of the eastern hemisphere; two species in China.

Van Oostroom's (Meded. Bot. Mus. Herb. Rijks Univ. Utrecht 14: 1–267. 1934) monograph of *Evolvulus* is by and large accepted today.

- 1a. Leaves oblong, elliptic, spatulate, or circular; peduncles present; sepals lanceolate, apex acute or acuminate; corolla pale blue or white 1. *E. alsinoides*
- 1b. Leaves nearly circular; peduncles absent; sepals ovate-oblong to oblong, apex obtuse or acute; corolla white or yellowish 2. *E. nummularius*

1. *Evolvulus alsinoides* (Linnaeus) Linnaeus, Sp. Pl. ed. 2. 392. 1762.

土丁桂 tu ding gui

Herbs perennial. Stems several to numerous, prostrate or ascending, slender, with appressed and spreading hairs. Leaves petiolate or subsessile, 0.7–2.5 cm × 5–10 mm. Cymes 1- to few flowered; peduncles filiform, 2.5–3.5 cm; bracts linear-subulate to linear-lanceolate, 1.5–4 mm. Sepals lanceolate, 3–4 mm, villous. Corolla rotate, 7–10 mm in diam. Stamens included; filaments filiform, adnate to base of corolla tube. Ovary glabrous. Styles 2, free. Capsule globose, 4-valved. Seeds 4 or fewer, black, smooth. Fl. and fr. year round. $2n = 26$.

Sandy soil, dry slopes, cultivated areas, maritime areas, grasslands, thickets, roadsides; 0–1800 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangsu, Jiangxi, Qinghai, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [Bangladesh, Cambodia, India, Indonesia, Japan (Ryukyu Islands), Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Thailand, Vietnam; Africa, Australia, North America, Pacific Islands, South America].

The whole plant is used medicinally.

- 1a. Leaves ovate-cordate or circular, densely pale brown villous 1c. var. *rotundifolius*
- 1b. Leaves linear, oblong, elliptic, lanceolate, or spatulate, ± appressed pilose or adaxially glabrous.
 - 2a. Leaves 7–25 × 5–10 mm, apex obtuse to emarginate, mucronulate 1a. var. *alsinoides*
 - 2b. Leaves 5–13 × 1.5–4 mm, apex acute or acuminate 1b. var. *decumbens*

1a. *Evolvulus alsinoides* var. *alsinoides*

土丁桂 (原变种) tu ding gui (yuan bian zhong)

Convolvulus alsinoides Linnaeus, Sp. Pl. 1: 157. 1753; *Evolvulus chinensis* Choisy; *E. pudicus* Hance ex Walpers.

Leaves oblong, elliptic, or spatulate, 0.7–2.5 cm × 5–10 mm, ± densely appressed pilose or adaxially subglabrous, apex obtuse to emarginate, mucronulate. Fl. and fr. year round.

Common weed, sandy soil, dry slopes, cultivated areas, grasslands, thickets, roadsides; 800–1800 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangsu, Jiangxi, Qinghai, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [Bangladesh, Cambodia, India, Indonesia, Japan (Ryukyu Islands), Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Thailand, Vietnam; Africa].

1b. *Evolvulus alsinoides* var. *decumbens* (R. Brown) van Oostroom, Meded. Bot. Mus. Herb. Rijks Univ. Utrecht 14: 38. 1934.

银丝草 yin si cao

Evolvulus decumbens R. Brown, Prodr. 144. 1810; *E. sinicus* Miquel.

Leaves lanceolate to linear, 5–13 × 1.5–4 mm, ± appressed pilose, apex acute or acuminate. Basal leaves sometimes wider, apex ± obtuse. Fl. May–Jan, fr. Jun–Oct.

Grasslands; 100–1800 m. Fujian, Guangdong, Guangxi, Hainan, Hubei, Hunan, Jiangxi, Taiwan, Yunnan [Indonesia, Malaysia, New Guinea, Thailand, Vietnam; Australia, Pacific Islands].

The whole plant is used medicinally.

1c. *Evolvulus alsinoides* var. *rotundifolius* Hayata ex van Oostroom, Meded. Bot. Mus. Herb. Rijks Univ. Utrecht 14: 31. 1934.

圆叶土丁桂 yuan ye tu ding gui

Evolvulus alsinoides (Linnaeus) Linnaeus f. *rotundifolia* (Hayata ex van Oostroom) T. Yamamoto.

Leaves ovate-cordate or circular, 7–13 × 6–10 mm, densely pale brown villous, base cordate to rounded, apex obtuse, mucronulate. Fl. May–Aug.

Maritime areas; below 100 m. Taiwan [Japan (Ryukyu Islands), Philippines].

2. *Evolvulus nummularius* (Linnaeus) Linnaeus, Sp. Pl. ed. 2. 391. 1762.

短梗土丁桂 duan geng tu ding gui

Convolvulus nummularius Linnaeus, Sp. Pl. 1: 157. 1753; *Evolvulus yunnanensis* S. H. Huang.

Herbs perennial. Stems several, rooting at nodes, prostrate, 20–40 cm, slender, ± villous or scabrous. Leaves distichous; petiole 2–4 mm; leaf blade nearly circular, 1.3–1.7 × 1.2–1.4 cm, glabrous or appressed pilose abaxially, base cordate to rounded, apex rounded or emarginate; lateral veins 2 or 3 pairs. Peduncle absent or very short. Pedicel 2.5–3 mm, densely villous. Flowers 1 or 2 per leaf axil. Sepals persistent, oblong-ovate to oblong, 3–4 × 2–3 mm, outer 2 slightly longer than inner ones, pilose abaxially, margin ciliate. Corolla broadly campanulate or subrotate, ca. 6 mm; limb ca. 7–8 mm in diam., 5-lobed. Stamens inserted at middle of corolla tube; filaments ca. 1.5 mm, glabrous basally; anthers oblong. Ovary globose. Style lobes linear, ca. 3 mm; stigmas minutely capitate. Capsule ovoid, 2–3 mm in diam. Seeds 2–4, brown, ovoid-trigonous, ca. 1 × 0.5 mm, minutely tuberculate.

$2n = 24$.

Roadsides; ca. 1000 m. Yunnan (Luxi Xian) [naturalized in India and Malaysia; Africa, native in North and South America].

This is the first record of this species from China. *Evolvulus yunnanensis* S. H. Huang is here reduced to synonymy for the first time.

