

6. TRIDYNAMIA Gagnepain, Notul. Syst. (Paris) 14: 26. 1950.

三翅藤属 san chi teng shu

Lianas, ± tomentose-villous, glabrescent. Leaves simple, petiolate, cordate, rigidly papery or ± leathery, abaxially densely pubescent or glabrous; venation pedate. Inflorescences axillary (or terminal) bracteate racemes or panicles; bracteoles 3, sepal-like, basal to calyx. Flowers showy, fascicled. Sepals free, quincuncial, unequally enlarged, papery, with (7 or) 9 (or 11) longitudinal veins basally, veins prominent abaxially; outer 2 or 3 sepals greatly enlarged, inner ones slightly so. Corolla white or blue-violet, campanulate to broadly funnellform, 1–3.5(–5.5) cm; limb ± 5-lobed, outside pubescent apically, inside glabrous. Stamens included or exerted; filaments basally pilose or glabrous; anthers sagittate, versatile; pollen 3-colpate, not spiny. Disc 5-lobulate or absent. Pistil included or exerted; ovary unilocular; ovules 4. Style 1, threadlike; stigma 2-lobed, wrinkled. Fruit tightly enclosed in calyx, papery, indehiscent, apiculate. Seed 1, glabrous.

Four species: China, India, Laos, Malaysia, Myanmar, Thailand, Vietnam; two species in China.

Fang Rhui-cheng believes that *Tridynamia* is not sufficiently distinct from *Porana*.

- 1a. Plants whitish to yellowish tomentose; corolla white; outer 3 sepals greatly elongated in fruit 1. *T. megalantha*
- 1b. Plants rust-colored or dull yellow velutinous or glabrous; corolla blue-violet, pale blue, or rose, rarely white; outer 2 sepals greatly elongated in fruit 2. *T. sinensis*

1. *Tridynamia megalantha* (Merrill) Staples, Novon 3: 201. 1993.

大花三翅藤 da hua san chi teng

Porana megalantha Merrill, Lingnan Sci. J. 14: 53, fig. 18. 1935; *P. spectabilis* Kurz var. *megalantha* (Merrill) How.

Climbers; indumentum whitish to yellowish. Stems glabrous; young parts tomentose. Petiole 1.2–4(–7) cm; leaf blade ovate, elliptic, or nearly circular, 7.8–15(–19.7) × 5–9.3(–12.5) cm, abaxially tomentose, adaxially subglabrous to tomentose, base cordate. Bracts ovate; bracteoles unequal. Pedicel 7–10 mm. Flowers 3–4.5(–5) cm. Sepals unequal, narrowly oblong to linear, flat; outer 3 sepals 7–8 mm, tomentose; inner 2 smaller. Fruiting calyx tan, oblong, tomentellous, coarsely reticulate; outer 3 sepals basally tightly clasping, thickened, distally flat, winglike, 5.5–7.5 × 1–1.8 cm; inner 2 smaller. Corolla white, broadly funnellform; limb 2.7–4.6 cm in diam., shallowly 5-lobed. Stamens unequal, 1.1–1.7 cm. Disc absent. Pistil included; ovary ovoid, glabrous. Style 1.7–1.8 cm, pilose basally. Fruit obovoid-ellipsoid, slender, ca. 10 × 6 mm, pilose. Seeds dark brown, 8–10 × 5–6 mm, wrinkled. Fl. year round with peaks in Jun-Aug and Nov-Dec, fr. year round with peaks in Jun-Aug and Jan-Mar.

Often on calcareous soils, roadsides, grassy savannas, forest margins, scrub, hillsides; 0–900 m. Guangdong, Guangxi, Hainan, Yunnan [NE India, Laos, Malaysia, Myanmar, Thailand, Vietnam].

The whole plant is used medicinally.

2. *Tridynamia sinensis* (Hemsley) Staples, Novon 3: 201. 1993.

大果三翅藤 da guo san chi teng

Climbers; indumentum reddish or dull yellow. Stems glabrous; young parts velutinous. Petiole 2.7–6.2 cm; leaf blade ovate to nearly circular, (4.4–)8.5–13.2 × (1.9–)6.1–10 cm, abaxially velutinous or glabrous, adaxially subglabrous. Bracts ovate-lanceolate; bracteoles unequal, persistent but not enlarging. Pedicel 1–1.6 cm. Flowers 8–10 mm. Sepals

unequal, oblong; outer 2 sepals 4–5 mm, ± velutinous; inner 3 smaller, curved around ovary. Fruiting calyx tan to pale brown, oblong to spatulate; outer 2 sepals 6.5–7.8 × 0.9–1.4(–1.8) cm, sparsely velutinous, base tightly clasping, thickened, apex flat, winglike. Corolla blue-violet, pale blue, rose to white, bowl-shaped, outside velutinous; limb (1–)1.6–2.3(–3) cm in diam., ± 5-lobed; lobes reflexed. Stamens equal or unequal, (0.7–)1.1–1.2 cm; filaments not collared basally. Disc 5-lobulate or absent. Pistil exerted; ovary ovoid-conical, velutinous apically. Style (0.5–)0.9–1.1 cm, pubescent basally; stigma 2-globose. Fruit dark brown, reddish apically, ellipsoid-obovoid, 1–1.1 cm × 6–8 mm, ruminant, pilose, glabrous basally. Seeds dark brown to black, 9–10 × 6–8 mm, smooth or faintly striate.

Two varieties with overlapping ranges along a broad zone in Guangxi and Guizhou provinces, where intermediates occur.

On conglomerates, frequently limestone soils, scrub and open areas, roadsides, thickets, forests, stream banks, slopes, lava beds, rock cliffs; 100–2500 m. Gansu, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Shaanxi, Sichuan, Yunnan [NE Vietnam].

- 1a. Stems and leaves abaxially rust-colored (to dull yellow) velutinous or tomentose; leaf blade broadly ovate to nearly circular, base cordate; flowers mostly 1.9–2.3(–3) cm in diam. 2a. var. *sinensis*
- 1b. Stems and leaves glabrous or sparsely pubescent; leaf blade typically narrowly ovate, base rounded to emarginate, rarely truncate to shallowly cordate; flowers mostly 1–2(–2.7) cm in diam. 2b. var. *delavayi*

2a. *Tridynamia sinensis* var. *sinensis*

大果三翅藤 (原变种) da guo san chi teng (yuan bian zhong)

Porana sinensis Hemsley in F. B. Forbes & Hemsley, J. Linn. Soc., Bot. 26: 197. 1890; *P. esquirolii* H. Léveillé; *Vatica cordata* H. H. Hu.

Climbers, pubescent. Leaf blade broadly ovate, elliptic-ovate to nearly circular, 8.5–13.2 × 6.1–10 cm, abaxially rusty

(to dull yellow) velutinous or tomentose, adaxially subglabrous, base cordate or shallowly cordate, apex acuminate or cuspidate. Corolla blue-violet or pale blue to white; tube 8–10 mm; limb 1.9–2.3(–3) cm in diam. Stamens exserted, equal, 1.1–1.2 cm. Disc absent. Fl. Apr–Sep, fr. May–Dec.

On rich, moist, sometimes rocky, conglomerate soils, thickets, forests, stream banks, slopes, rock cliffs; 100–2500 m. Guangdong, Guangxi, Guizhou, S Hunan [NE Vietnam].

2b. *Tridynamia sinensis* var. *delavayi* (Gagnepain & Courchet) Staples, Novon 3: 201. 1993.

近无毛三翅藤 jin wu mao san chi teng

Porana delavayi Gagnepain & Courchet, Notul. Syst. (Paris) 3: 153. 1915; *P. confertifolia* C. Y. Wu; *P. sinensis* Hemsley var. *delavayi* (Gagnepain & Courchet) Rehder.

Climbers, glabrous or sparsely pubescent. Leaf blade narrowly ovate to elliptic-ovate, (4.4–)8–14.2 □ (1.9–)4.1–9.2 cm, abaxially glabrous to sparsely velutinous, especially along veins, adaxially glabrous, base rounded to emarginate, rarely truncate to shallowly cordate, apex attenuate-acuminate to apiculate. Corolla violet, dark blue, or purple, with a white throat (rarely rose-pink); tube 6–9(–10) mm; limb 1–2(–2.7) cm in diam., subtire to 5-lobed. Stamens ± exserted, equal or unequal, 7–12 mm. Disc 5-lobulate or absent. Fl. Apr–Oct, fr. Jun–Dec.

• On dry, rocky, frequently limestone soils, thickets, scrub and open situations along streams, roadsides, cliffs, rock ledges, lava beds; 400–2200 m. Gansu, Guangxi, Guizhou, Hubei, Hunan, Shaanxi, Sichuan, Yunnan.

