

### 3. TRIADENUM Rafinesque, Fl. Tellur. 3: 78. 1837 [“1836”].

三腺金丝桃属 san xian jin si tao shu

Li Xiwen (李锡文 Li Hsi-wen); Norman K. B. Robson

Herbs, perennial, rhizomatous, glabrous, with translucent (“pale”) glands only. Leaves opposite, sessile or petiolate, entire; venation pinnate; glands punctiform only. Flowers bisexual, homostylous. Sepals 5, quincuncial, equal, free. Petals 5, imbricate, flesh-pink or white, ± symmetric, deciduous after anthesis. Stamens in 5 fascicles united to form apparently 3 (i.e., 2 + 2 + 1) with compound fascicles antisepalous, persistent, each fascicle with 3 stamens; filaments rather slender, 0.35–0.5 united; anthers small, dorsifixed, dehiscing longitudinally, with gland on connective; sterile fascicles (fasciclododes) 3, yellow to orange, inserted between stamen fascicles, persistent. Ovary 3-loculed with axile placentae, each placenta with numerous ovules; styles 3, free, ± slender; stigmas narrowly to scarcely capitate. Fruit a septicidal capsule, with valves longitudinally and prominently vittate. Seeds small, carinate; testa reticulate-foveolate, not arillate; embryo slender, straight, with distinct slender cotyledons.

Six species: one in NE India (Khasia Hills) and S China, one in NE China, Korea, Russia (Far East), and Japan, and four in E Canada and the E United States.

- 1a. Petals flesh-pink; inflorescence from 2 nodes, narrowly cylindrical to narrowly ellipsoid; leaves ovate-oblong to oblong or oblong-lanceolate (l:w = 2–3), base cordate-amplexicaul ..... 1. *T. japonicum*  
1b. Petals white; inflorescence from 6–11 nodes, spikelike; leaves narrowly elliptic to oblong (l:w = 3–5), base attenuate ..... 2. *T. breviflorum*

**1. *Triadenum japonicum*** (Blume) Makino, Nippon Shokubutsu-Zukwan: 326. 1925. mm; testa finely foveolate. Fl. Jul–Aug, fr. Aug–Sep.  $2n = 36$ .

Wet meadows and hillsides, marshes; lowland. Heilongjiang, Jilin [Japan, Korea, Russia (Far East)].

红花金丝桃 hong hua jin si tao

*Elodes japonica* Blume, Mus. Bot. 2: 15. 1856 [“*Elodea*”]; *E. virginica* (Linnæus) Nuttall var. *asiatica* Maximowicz; *E. virginica* var. *japonica* (Blume) Makino; *Hypericum asiaticum* (Maximowicz) Nakai; *H. fauriei* R. Keller; *H. virginicum* Linnæus var. *asiaticum* (Maximowicz) Yatabe; *H. virginicum* var. *japonicum* (Blume) Matsumura; *Triadenum asiaticum* (Maximowicz) Komarov; *T. japonicum* f. *asiaticum* (Maximowicz) Y. Kimura.

Herbs, 15–50(–90) cm tall, erect from creeping and rooting base, with few or no branches below inflorescence. Stems terete, eglandular. Leaves sessile; blade oblong-lanceolate to ovate-oblong or oblong, (1–)2–5(–8) × (0.5–)1–1.7 cm; thickly papery, abaxially paler; laminar glands scattered dots; intramarginal glands ± dense to spaced; main lateral veins 4-paired, tertiary reticulation rather dense; base shallowly cordate-amplexicaul, margin revolute, apex obtuse to emarginate. Inflorescence 1–3-flowered, terminal, or sometimes with flowering branches from 1–3 nodes below, the whole narrowly cylindrical to narrowly ellipsoid; peduncles 5–10 mm; bracts and bract-eoles linear-lanceolate, persistent. Pedicels 1–3 mm. Flowers ca. 1 cm in diam., curved-funnel-shaped; buds cylindrical, apex rounded. Sepals erect, ovate-lanceolate, 3–4 × ca. 2 mm; laminar glands 5, lines; marginal glands absent; margin entire, apex obtuse; veins 7. Petals flesh-pink, narrowly obovate to oblong, 6–7 × 2–3 mm, ca. 0.7 × as long as sepals; laminar glands few, dots, near apex; marginal glands absent; margin entire. Stamen fascicles ca. 4 mm, ca. 0.8 × as long as petals; filaments to 0.5 united. Fasciclododes orange, scalelike, ovate to orbicular, ca. 2 mm, not lobed. Ovary ovoid; styles 1.5–1.75 mm, ca. 0.5 × as long as ovary, appressed, eventually distally spreading. Capsule narrowly ellipsoid to narrowly obconic, 7–10 × 5–6 mm, 1.7–2 × as long as sepals, apex acute. Seeds dark brown, ca. 1

*Triadenum japonicum* is very similar to the E North American *T. virginicum* (Linnaeus) Rafinesque, differing from it mainly in dimensions of floral parts.

**2. *Triadenum breviflorum*** (Wallich ex Dyer) Y. Kimura in Nakai & Honda, Nov. Fl. Jap. 10: 79. 1951.

三腺金丝桃 san xian jin si tao

*Hypericum breviflorum* Wallich ex Dyer in J. D. Hooker, Fl. Brit. India 1: 257. 1874.

Herbs, (15–)30–55 cm tall, ascending from creeping and rooting base; stems solitary or few, unbranched or branched above middle, branches all fertile. Stems 4-lined and ancipitous when young, soon terete, eglandular. Leaves sessile or petiolate to 2 mm; blade narrowly elliptic to oblong, 2–5.5(–7) × 0.6–1.3(–1.5) cm; thickly papery, abaxially paler; laminar glands scattered dots; intramarginal glands ± dense; main lateral veins 5- or 6-paired, forming prominent intramarginal vein, tertiary reticulation lax; base angustate, margin recurved, apex obtuse to rounded. Inflorescence 3-flowered, terminal and with paired 1–3-flowered branches from up to 8 nodes, the whole narrowly cylindrical to spiciform; bracts and bracteoles ovate to triangular-ovate; peduncles 0.5–6 mm. Pedicels 1–2 mm. Flowers 5–6 mm in diam., ?funnel-shaped; buds ovoid, apex acute. Sepals erect, ovate to oblong, 3.5–5 × 1.5–2 mm; laminar glands 5, lines; marginal glands absent; margin entire, apex obtuse to rounded, 7-veined. Petals white, obovate-oblong to oblong, 4–6 × 2–3 mm, ca. 1.1 × as long as sepals; laminar glands scattered dots; marginal glands absent; margin entire. Stamen fascicles 3, 2–4 mm, ca. 0.7 × as long as petals; filaments 0.35 to 0.7 united. Fascicloides ?orange, scalelike, subrectangular, 1–1.5 × ca. 0.8 mm, emarginate. Ovary ovoid to ellipsoid, 2.5–3 × 1.5–2 mm; styles ca. 1 mm, ca. 2/5 as long as ovary, appressed, distally spreading. Capsule ovoid, 6–8 × 3–4 mm, apex acute. Seeds dark red-brown, ca. 1 mm; testa finely foveolate. Fl. Jul–Aug, fr. Aug–Sep.

Wet grasslands, ditches, rice fields, roadsides; below 600 m. Anhui (Jiuhua Shan), Hubei (Qichun), Hunan (Wugang), Jiangsu (Lianyungang), Jiangxi, Taiwan (Nantou), Yunnan (Jinghong), Zhejiang [NE India (Khasia Hills)].

Flora of China 13: 35–36. 2007.