

8. RADERMACHERA Zollinger & Moritz in Zollinger, Syst. Verz. 3: 53. 1855.

菜豆树属 *cai dou shu shu*

Trees. Leaves opposite, 1–3-pinnately compound; leaflets entire, petiolate. Inflorescences paniculate or reduced almost to fascicles, terminal or lateral; bracts and bractlets linear or leaflike. Calyx campanulate, apex 5-lobed or truncate. Corolla funnellform-campanulate or salverform; tube short or long, limb slightly bilabiate; lobes rounded, spreading. Stamens 4(or 5), didynamous or subequal; staminode usually present. Disc annular, slightly fleshy. Ovary terete; ovules numerous, 2-rowed in each locule. Style included; stigma ligulate, 2-lobed. Capsule dehiscent loculicidally, long, terete, 2-angular; septum compressed, woody. Seeds compressed, transparent membranous winged at both ends.

About 16 species: tropical Asia; seven species in China.

1a. Leaves 1-pinnately compound.

2a. Calyx 3–5 × 3–5 mm; corolla pale yellow, ca. 3 cm; leaflets 4–6 cm wide 1. *R. microcalyx*

2b. Calyx ca. 8 mm; corolla white, ca. 3.7 cm; leaflets 7–9 cm wide 2. *R. glandulosa*

1b. Leaves 2- or 3-pinnately compound.

3a. Fertile stamens 5 3. *R. pentandra*

3b. Fertile stamens 4.

5a. Capsule woody, densely white lenticellate 4. *R. yunnanensis*

5b. Capsule thick leathery, without lenticels.

6a. Petioles, leaf rachis, and inflorescences pubescent 6. *R. frondosa*

6b. Petioles, leaf rachis, and inflorescences glabrous.

7a. Corolla 6–8 cm, white to pale yellow; capsule ca. 85 × 1 cm 5. *R. sinica*

7b. Corolla 3.5–5 cm, golden yellow; capsule ca. 40 × 0.5 cm 7. *R. hainanensis*

1. *Radermachera microcalyx* C. Y. Wu & W. C. Yin in C. Y. Wu, Fl. Yunnan. 2: 711. 1979. Inflorescences paniculate,

小萼菜豆树 *xiao e cai dou shu*

Trees ca. 20 m tall. Leaves 1-pinnately compound, 40–56 cm; petiolules 1–2 cm; leaflets 5–7, ovate-elliptic to ovate, 11–26 × 4–6 cm, black glandular abaxially, glabrous, base broadly cuneate to subrounded, oblique, margin entire, apex acute; lateral veins 7–10 on each side of midrib. Inflorescences cymose-paniculate, terminal. Calyx campanulate, 3–5 × 3–5 mm, persistent; teeth 5, minute, apex truncate. Corolla pale yellow; tube ca. 2.5 cm, ca. 5 mm in diam.; lobes ovate-rounded, ca. 1 cm. Style filiform, ca. 2 cm, glabrous. Capsule green, long terete, nodding, 20–28 cm × ca. 6 mm; pericarp thin leathery, dehiscent by 2 valves; septum terete, 2–3 mm in diam. Seeds minute, long ellipsoid, including wing ca. 1 cm. Fl. Jan–Mar, fr. Apr–Dec.

• Guangxi, S Yunnan.

2. *Radermachera glandulosa* (Blume) Miquel, Ann. Mus. Bot. Lugduno-Batavi 3: 250. 1867.

广西菜豆树 *guang xi cai dou shu*

Spathodea glandulosa Blume, Bijdr. 762. 1862;

Bignonia porteriana Willroth ex A. de Candolle;

Stereospermum glandulosum Miquel.

Trees small, glabrous except for pubescent young branches. Leaves 1-pinnately compound; petiolules ca. 6 mm; leaflets 3–7, long elliptic, 18–21 × 8–9 cm, base cuneate, margin entire, apex acute or acuminate.

ca. 25 cm, short branched, many flowered. Calyx campanulate, apex slightly truncate, 5–8 mm, glabrous. Corolla white, ca. 3.7 cm; tube pale purple-red abaxially, white and glandular adaxially, 3–4 cm in diam. at mouth, tubular at base; lobes rounded, ca. 8 mm, subentire. Capsule linear, 22–30 cm × 7–8 mm, smooth; pericarp thin; septum 3–4 mm in diam. Seeds compressed globose, including wing ca. 2 cm × 2–3 mm. Fl. Apr, fr. Jul.

Forests, thickets; ca. 900 m. Guangdong, Guangxi [India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand].

3. *Radermachera pentandra* Hemsley in J. D. Hooker, Icon. Pl. 28: pl. 2728. 1902.

豇豆树 jiang dou shu

Trees ca. 20 m tall. Branchlets copiously lenticellate. Leaves 2-pinnately compound; leaf rachis ca. 45 cm; lateral petiolules 5–10 mm, terminal ones 3–6 cm; leaflets ca. 23, blade elliptic-lanceolate to ovate-lanceolate, 10–20 × 3–7 cm, glabrous on both sides, densely black glandular abaxially, base cuneate or subrounded, margin entire, apex long acuminate; lateral veins 8 or 9 on each side of midrib. Inflorescences sparsely paniculate; peduncle short. Calyx campanulate, 2.5–3 × ca. 2 cm; teeth 5, ovate-rounded. Corolla orange-yellow, broadly campanulate; tube ca. 5 × 2.5 cm; lobes ovate-rounded, subequal. Stamens 5, inserted high in corolla tube; filaments ca. 1 cm, pubescent; anthers divergent, ellipsoid, with caudate appendages at apex. Capsule terete, nodding, ca. 1 m × 8 mm, 2-angular; pericarp black-green, thin leathery; septum terete, ca. 3 mm in diam. Seeds ovoid, thin membranous, including wing ca. 12 × 3 mm. Fl. Nov–Apr, fr. Oct–Dec.

• Slopes, forests; 1000–1700 m. S Yunnan.

4. *Radermachera yunnanensis* C. Y. Wu & W. C. Yin in C. Y. Wu, Fl. Yunnan. 2: 712. 1979.

滇菜豆树 dian cai dou shu

Trees ca. 16 m tall. Barks gray-black. Leaves 2(or 3)-pinnately compound, ca. 70 cm; lateral petiolules 1–5 mm, terminal one 1–2.5 cm; leaflets ovate, 4–9 × 2–5 cm, densely white glandular adaxially, base cuneate, oblique, margin entire, apex caudate-acuminate; lateral veins 5–7 on each side of midrib. Inflorescences cymose-paniculate. Calyx ca. 3 cm × 8 mm; teeth 5, long triangular, ca. 1.2 cm. Corolla white to pale yellow, 7–9 cm. Stamens 4, inserted nearly at base of corolla tube. Capsule gray-black when mature, long terete, subwoody, ca. 50 × 1–1.2 cm, densely white lenticellate, scabrous. Seeds ellipsoid, including wing 1.4–1.7 cm × 3–5 mm. Fl. Apr–May, fr. Aug–Nov.

• Slopes, forests; 800–1100 m. Yunnan.

5. *Radermachera sinica* (Hance) Hemsley in J. D. Hooker, Icon. Pl. 28: pl. 2728. 1902.

菜豆树 cai dou shu

Stereospermum sinicum Hance, J. Bot. 20: 16. 1881;
Radermachera tonkinensis Dop.

Trees ca. 10 m tall. Petioles, leaf axis, and inflorescences glabrous. Leaves 2(or 3)-pinnately compound; leaf rachis ca. 30 cm; lateral petiolules less than 5 mm, terminal one 1–2 cm; leaflets ovate to ovate-lanceolate, 4–7 × 2–3.5 cm, glabrous, base broadly cuneate, margin entire, apex caudate-acuminate; lateral veins 5 or 6 on each side of midrib. Inflorescences paniculate, terminal, erect, 25–35 cm; bracts linear-lanceolate, ca. 10 cm, deciduous, bractlets linear, 4–6 cm. Calyx teeth 5, ovate-lanceolate, ca. 12 mm. Corolla white to pale yellow, campanulate-funnelform, 6–8 cm; lobes rounded, ca. 2.5 cm. Stamens 4, didynamous; staminode present, filiform. Ovules 2-rowed. Style exerted; stigma 2-lobed. Capsule terete, nodding, angular, ca. 85 × 1 cm; pericarp thin leathery, indistinctly lenticellate; septum terete, slightly compressed. Seeds ellipsoid, including wing ca. 2 cm × 5 mm. Fl. May–Sep, fr. Oct–Dec.

Slopes and forests; 300–800 m. Guangdong, Guangxi, Guizhou, Taiwan, Yunnan [Bhutan, India (Assam, Darjeeling), N Myanmar, Vietnam].

6. *Radermachera frondosa* Chun & How, Acta Phytotax. Sin. 7: 75. 1958.

美叶菜豆树 mei ye cai dou shu

Trees 7–20 m tall; branchlets puberulent or glabrescent, lenticellate. Leaves 2-pinnately compound; leaflets 5–7, elliptic or ovate, 4–6 × 1.5–3 cm, papery, terminal ones large, base broadly cuneate, apex caudate-acuminate. Inflorescences paniculate, terminal, ca. 30 cm, 3-branched. Flowers white, red-brown in bud. Pedicel 3–5 mm, pubescent. Calyx 1–1.2 cm, 3- or 4-lobed; lobes ovate-triangular, 2–3 mm, acute. Corolla tubular, 3–4 × 2–2.5 cm, glabrous; lobes rounded, ca. 1.2 cm. Disc cupular, ca. 1 mm. Stamens 4, inserted high in corolla tube; anthers linear, ca. 7 mm. Ovules numerous, in several rows. Stigma 2-lobed. Capsule nodding, subterete, 20–40 cm × 5–6 mm. Seeds including wing 7–12 mm. Fl. and fr. throughout year.

• Forests. Guangdong, Guangxi, Hainan.

7. *Radermachera hainanensis* Merrill, Philipp. J. Sci. 21: 353. 1922.

海南菜豆树 hai nan cai dou shu

Trees 6–13(–20) m tall, glabrescent. Leaves 2- or 3-pinnately compound; leaflets oblong-ovate or ovate, 4–10 × 2.5–4.5 cm, papery, glabrous, base broadly cuneate, apex acuminate; lateral veins 5 or 6 on each side of midrib. Inflorescences racemose, 1–4 cm, terminal, few flowered. Calyx pale red, tubular, irregular, ca. 1.8 cm, 3–5-lobed. Corolla golden yellow, campanulate, 3.5–5 × ca. 1.5 cm, pubescent adaxially; tube ca. 5 mm in diam. at base; lobes reniform-triangular, ca. 1 cm in diam. Capsule ca. 40 cm × 5 mm;

Flora of China 18: 218–219. 1998.

septum compressed rounded. Seeds ovoid, including wing ca. 1.2 cm, membranous. Fl. Apr.

Slopes, forests; 300–600 m. Guangdong, Hainan, Yunnan [Cambodia, Laos, Thailand].

