

24. CHONEMORPHA G. Don, Gen. Hist. 4: 76. 1837, nom. cons.

鹿角藤属 lu jiao teng shu

Rhynchodia Benth.

Lianas stout, woody, with latex. Leaves large, opposite; interpetiolar lines and colleters present. Cymes lax, paniculate or racemose, terminal or subaxillary. Flowers large. Calyx tubular, shortly 5-toothed or 5-partite, basal glands large, denticulate. Corolla white or reddish, funnellform, tube cylindric, throat not scaly; lobes overlapping to right. Stamens inserted near base or middle of corolla tube; anthers sagittate, connivent, adherent to pistil head, cells spurred at base; disc ringlike, fleshy, shorter than ovary, apex 5-cleft. Ovaries 2, free; ovules numerous in each ovary. Style filiform; pistil head club-shaped, slightly thickened, apex 2-cleft. Follicles 2, elongated, cylindric. Seeds ovate-oblong, flat, short beaked, beak with a long coma.

About 15 species: tropical and subtropical Asia, eight species in China.

- 1a. Calyx less than 7 mm; corolla tube less than 1 cm 8. *C. verrucosa*
- 1b. Calyx more than 7 mm; corolla tube more than 2 cm.
 - 2a. Calyx divided to middle or near base 7. *C. griffithii*
 - 2b. Calyx shortly 5-toothed.
 - 3a. Corolla pink or reddish; style glabrous.
 - 4a. Calyx 1.5–1.8 cm; cymes to 35 cm; follicles to 25 cm 2. *C. splendens*
 - 4b. Calyx 1.8–3 cm; cymes to 17 cm; follicles to 34 cm 3. *C. megacalyx*
 - 3b. Corolla white; style often hairy.
 - 5a. Base of leaf blade cordate; calyx glabrescent outside; corolla limb up to 8 cm in diam. 1. *C. fragrans*
 - 5b. Base of leaf blade rounded or cuneate; calyx pubescent to tomentose outside; corolla limb up to 5 cm in diam.
 - 6a. Corolla pubescent throughout; disc longer than ovary; seed coma ca. 7 cm 4. *C. eriostylis*
 - 6b. Corolla glabrous throughout; disc shorter than ovary; seed coma 4–5 cm.
 - 7a. Leaves thick leathery, obovate, densely floccose; calyx ca. 1 cm; corolla tube ca. 2 cm, lobes ca. 1.7 cm 5. *C. floccosa*
 - 7b. Leaves membranous, elliptic, densely hirsute; calyx ca. 1.5 cm; corolla tube ca. 2.8 cm, lobes ca. 2.5 cm 6. *C. parviflora*

1. *Chonemorpha fragrans* (Moon) Alston, Ann. Roy. Bot. Gard. (Peradeniya) 11: 203. 1929.

大叶鹿角藤 da ye lu jiao teng

Echites fragrans Moon, Cat. Pl. Ceylon 20. 1824; *Chonemorpha grandiflora* G. Don; *C. macrophylla* G. Don; *C. mollis* Miquel; *C. rheedei* Ridley; *E. macrophylla* Roxburgh, not Kunth.

Lianas to 30 m, hirsute except for flowers. Petiole to 2 cm; leaf blade suborbicular to broadly ovate, 15–45 × 13–45 cm, papery, base cordate, apex acute or rounded, cuspidate; lateral veins 10–12 pairs. Calyx tubular, ca. 1 cm, apex toothed, glabrescent outside. Corolla white, limb to 8 cm wide; tube 3.5–4.5 cm, dilated at base, glabrous outside, throat villous; lobes obliquely obovate, ca. 3.5 cm. Filaments short pubescent. Follicles cylindric to fusiform, to 30 × 2 cm. Seeds oblong, coma ca. 5 cm. Fl. May–Jul. $2n = 20$.

Dense montane forests, often clinging to trees. Guangxi, Yunnan; cultivated in Fujian and Guangdong [India, Indonesia, Malaysia, Myanmar, Sri Lanka, Thailand].

2. *Chonemorpha splendens* Chun & Tsiang in Tsiang, Sunyatsenia 2: 157. 1934.

海南鹿角藤 hai nan lu jiao teng

Lianas to 20 m, yellow tomentose. Petiole 1.5–2 cm; leaf

blade usually broadly ovate or obovate, 18–20 × 12–14 cm, base rounded to shallowly cordate, apex acute; lateral veins 11 or 12 pairs. Cymes racemelike, to 35 cm, 9–13-flowered. Calyx tubular, 1.5–1.8 cm, apex toothed, erose-denticulate. Corolla pink or reddish, limb ca. 4 cm in diam., tube ca. 2.5 cm. Stamens inserted ca. 1 cm from base of corolla tube. Ovary and style glabrous. Follicles fusiform, ca. 25 × 2 cm, tomentose, eventually glabrescent. Seeds with silky coma to 5 cm. Fl. May–Jul, fr. Aug–Dec.

• Sparse woods, often clinging to trees; 300–800 m. Hainan, Yunnan.

The separation of this species from *Chonemorpha megacalyx* is not that clear.

3. *Chonemorpha megacalyx* Pierre in Spire, Contr. Apocyn. 76. 1905.

长萼鹿角藤 chang e lu jiao teng

Lianas to 20 m, yellowish brown tomentose. Petiole 1.5–3.5 cm; leaf blade obovate to narrowly ovate, 17–29 × 11–22 cm, base rounded, apex acute; lateral veins 8–12 pairs. Cymes terminal, to 17 cm; peduncle 3.5–9 cm. Calyx tubular, 1.8–3 cm, apex toothed. Corolla pink or reddish, limb ca. 4 cm in diam., tube ca. 4 cm, glabrous outside, hispid inside; lobes obovate, ca. 3.5 × 2 cm wide. Ovary and style glabrous.

Follicles cylindrical, to 34×2 cm. Seeds with silky coma to 5.5 cm. Fl. spring-summer.

Borders of montane forests; 900–1500 m. S Yunnan [Laos, Thailand].

The stem is used in Yunnan as a medicine to treat backache and leg pain caused by rheumatism, fractures, and injury. The seed coma is used externally to treat hemostasis.

4. *Chonemorpha eriostylis* Pitard in Lecomte & Humbert, Fl. Indo-Chine 3: 1247. 1933.

鹿角藤 lu jiao teng

Lianas to 30 m, hirsute. Petiole 1.2–1.5 cm; leaf blade obovate or broadly oblong, $12\text{--}34 \times 7\text{--}23$ cm, papery, base rounded, apex abruptly acute, adaxial surface pubescent; lateral veins 9–11 pairs. Cymes terminal, ca. 12 cm, 7–15-flowered. Calyx tubular, ca. 1.4 cm, tomentose outside, apex toothed. Corolla white, limb ca. 4 cm in diam., tube ca. 2 cm, pubescent on both surfaces; lobes obovate, ca. 2 cm. Stamens inserted near base of corolla tube; filaments puberulent; disc cup-shaped, longer than ovary, apex undate. Ovary glabrous. Style densely hirsute. Follicles linear, $25\text{--}40 \times 1.5\text{--}2$ cm, yellowish brown downy. Seeds ovate-lanceolate, flat, ca. 2.6 cm, coma ca. 7 cm. Fl. May–Jul, fr. Aug–Dec.

Sparse woods, humid valleys; 300–1000 m. Guangdong, Guangxi, S Yunnan [Vietnam].

The stem is used in Guangxi as medicine for rheumatism.

5. *Chonemorpha floccosa* Tsiang & P. T. Li, Acta Phyto-tax. Sin. 11: 387. 1973.

丛毛鹿角藤 cong mao lu jiao teng

Lianas to 25 m. Branches, branchlets, and leaves densely yellowish brown floccose. Petiole 1.2–1.5 cm; leaf blade obovate, $10\text{--}14 \times 6\text{--}10$ cm, thick leathery, floccose, base broadly cuneate; lateral veins ca. 10 pairs. Calyx tubular, ca. 1 cm; apex toothed, pubescent outside. Corolla white, glabrous, tube ca. 2 cm; lobes obdeltoid, ca. 1.7 cm. Stamens inserted at base of corolla tube; disc ringlike, shorter than ovary, apex refuse. Ovary and style bearing bristles. Follicles linear, to 35×1 cm, densely yellowish brown pubescent. Seeds ovate-lanceolate, flat, ca. 2.5 cm, coma ca. 4 cm. Fl. May–Aug, fr. Aug–Dec.

• Mixed woods; 500–800. S Guangxi.

6. *Chonemorpha parviflora* Tsiang & P. T. Li, Acta Phyto-tax. Sin. 11: 389. 1973.

小花鹿角藤 xiao hua lu jiao teng

Lianas to 20 m. Branches, branchlets, and leaves densely yellow hirsute. Petiole 1.4–2 cm; leaf blade elliptic, $13\text{--}22 \times 6\text{--}12$ cm, membranous, hirsute, base broadly cuneate, apex acute; lateral veins 10–12 pairs. Cymes terminal. Pedicel ca. 1 cm, pubescent. Calyx tubular, ca. 1.5 cm, pubescent outside, apex 5-toothed. Corolla white, glabrous, tube ca. 2.8 cm; lobes narrowly obovate, ca. 2.5 cm. Stamens inserted near base of corolla tube; disc cup-shaped, shorter than ovary. Ovary and style villous. Follicles linear, $24\text{--}26 \times$ ca. 1 cm,

pubescent. Seeds narrowly ovate, flat, ca. 2.2 cm, coma ca. 5 cm. Fl. May–Aug, fr. Aug–Dec.

• Mixed woods; 500–1000 m. S Guangxi, S Yunnan.

7. *Chonemorpha griffithii* J. D. Hooker, Fl. Brit. India 3: 662. 1882.

漾濞鹿角藤 yang bi lu jiao teng

Chonemorpha valvata Chatterjee.

Lianas woody, to 20 m. Branchlets obscurely lenticellate, tawny pubescent. Petiole 1.5–5 cm; leaf blade broadly ovate or suborbicular, $12\text{--}33 \times 7\text{--}20$ cm, abaxially pubescent, base broadly cuneate to rounded, apex rounded or acute; lateral veins 9–12 pairs, subparallel, ascending. Cymes paniculate, terminal, to 15-flowered; bracteoles lanceolate, apex acute, ca. 1 mm. Calyx ca. 1.1 cm, eventually divided to base; lobes valvate, narrowly ovate, $8\text{--}12 \times 3\text{--}4.5$ mm, puberulent outside. Corolla reddish; tube cylindrical, ca. 7 cm, dilated at middle, distal half densely pubescent inside; lobes obovate to obtriangular, $3.5\text{--}4 \times 3.5\text{--}4.3$ cm. Stamens inserted at middle of corolla tube; filaments densely pubescent; disc ringlike, shallowly divided at apex, shorter than ovary. Ovary glabrous; style puberulent at apex. Follicles cylindrical, glabrous, ca. 34×1.2 cm. Fl. spring-summer.

Dense montane forests, moist valleys; 900–1600 m. E Xizang, S Yunnan [India, Myanmar, Nepal, Thailand].

The stem is used in Yunnan as medicine for the treatment of fractures and rheumatism.

8. *Chonemorpha verrucosa* (Blume) D. J. Middleton, Novon 3: 455. 1993.

尖子藤 jian zi teng

Tabernaemontana verrucosa Blume, Bijdr. 1029. 1826; *Echites rhynchosperma* Wallich; *Rhynchodia rhynchosperma* (Wallich) K. Schumann; *R. verrucosa* (Blume) Woodson; *Trachelospermum verrucosum* (Blume) Boerlage.

Lianas to 10 m. Branches dark purple; branchlets glabrous, lenticellate. Petiole 1–3 cm; leaf blade broadly to narrowly ovate, $12\text{--}22 \times 5\text{--}12$ cm, abaxially pubescent, base obtuse to rounded, apex acute to caudate; lateral veins 7–15 pairs. Cymes 7–13 \times 5–11 cm, puberulent. Calyx less than 7 mm. Corolla white, tinged pink; tube 5-angled, ca. 6 mm, densely pubescent inside; lobes obovate or obdeltoid, ca. 8×6 mm, apex rounded or truncate. Stamens inserted at middle of corolla tube. Follicles elongated, compressed, $19\text{--}40$ cm \times 7–10 mm. Seeds oblong, ca. 15×5 mm, coma 4.5–6 cm. Fl. Apr–Jun, fr. Aug–Dec.

Dense montane forests, ravines; 300–1000 m. Guangdong, Hainan, S Yunnan [Bhutan, India, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam].

