

#### 4. CONNARUS Linnaeus, Sp. Pl. 2: 675. 1753.

牛栓藤属 niu shuan teng shu

*Anisostemon* Turczaninow; *Erythrostigma* Hasskarl; *Tricholobus* Blume.

Lianas, climbing shrubs, or small trees. Branchlets glabrous. Leaves alternate, exstipulate, petiolate, odd-pinnate or 3-foliolate, rarely 1-foliolate; leaflets subopposite or alternate; leaflet blade entire at margin, usually with pellucid glands. Inflorescences mostly terminal, paniculate, large, or rarely subcymose or racemose in distal leaf axils. Flowers bisexual, fragrant. Sepals, petals, and stamens usually glandular. Sepals (4 or)5, broadly imbricate or subvalvate in bud, slightly connate at base, thick and fleshy, persistent but not enlarged after anthesis. Petals 5, free, subequaling or slightly longer than sepals, often coherent at middle, imbricate in bud. Stamens ca. 10, alternately longer and shorter, 5 long ones opposite sepals, 5 short ones opposite petals and often abortive; filaments connate at base; anthers oblong, locules often glandular at base; connective glandular at apex. Carpel 1; ovary globose, 1-loculed, pilose; ovules 2, collateral. Style slender, proximal 1/2 pilose, distal 1/2 glandular pubescent; stigma uniform, oblique. Follicle slightly compressed, sometimes narrowed at base into a long, slender stipe (stipe sometimes thick or almost absent), striate, dehiscing longitudinally along adaxial or sometimes abaxial suture, with persistent calyx, apex obtuse and usually shortly beaked; pericarp woody or leathery. Seed 1, somewhat reniform; testa mostly black-purple, glossy; aril cupular, crenulate or lacinate, fleshy; endosperm absent.

Between 80 and 120 species: pantropical, especially in Africa, America, and SE Asia; two species in China.

- 1a. Sepals lanceolate to ovate, apex acuminate; pistil nearly as long as long stamens; pericarp thick, woody ..... 1. *C. paniculatus*  
1b. Sepals elliptic, apex obtuse; pistil ca. 1/2 as long as long stamens; pericarp thin ..... 2. *C. yunnanensis*

**1. *Connarus paniculatus*** Roxburgh, Fl. Ind., ed. 1832, 3: 139. 1832.

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*Connarus hainanensis* Merrill; *C. tonkinensis* Lecomte.

Lianas or scandent shrubs. Branchlets ferruginous tomentose when young, glabrous when mature. Leaves odd-pinnate, rarely 1-foliolate; petiole, rachis, and petiolules glabrous; leaflets often 2- or 3-paired; leaflet blade oblong, oblong-elliptic, or lanceolate, 6–20 × 3–7.5 cm, leathery, glabrous on both surfaces, lateral veins 5–9-paired, spreading to ascending, slightly curved and anastomosing near margin, base subcuneate or subrounded, margin entire, apex acute, rarely emarginate. Inflorescences terminal or axillary, paniculate, 10–40 cm; rachis and pedicels shortly ferruginous tomentose, later glabrescent; bracts scaly. Sepals 5, lanceolate to ovate, ca. 3 mm, sparsely and shortly ferruginous tomentose abaxially, apex acuminate. Petals 5, milky yellow, oblong, 5–7 mm, shortly ferruginous tomentose abaxially, pilose adaxially, apex obtuse. Stamens ca. 10, all fertile. Carpel 1, nearly as long as long stamens, densely pubescent. Follicle long ellipsoid, slightly inflated, 3–3.5 × 1.5–2 cm, base gradually narrowed into a short, slender stipe, apex shortly beaked and slightly oblique; pericarp bright red, woody, glabrous abaxially, slightly pubescent adaxially, longitudinally striate. Seed black-purple, glossy, oblong, 1–1.7 × 0.5–1.1 cm, base covered by 2-lobed aril.

Sparse or dense forests. Hainan [Cambodia, India, Laos, Malaysia, Thailand, Vietnam].

**2. *Connarus yunnanensis*** Schellenberg in Engler, Pflanzenr. 103(IV. 127): 228. 1938.

云南牛栓藤 yun nan niu shuan teng

Shrubs climbing. Branchlets yellowish and glabrous when young. Leaves odd-pinnate; petioles, rachis, and petiolules glabrous; petiolule robust, 4–6 mm; leaflet blade adaxially glossy, narrowly oblong or elliptic, 6.5–16 × 2–5 cm, hard papery, abaxially glandular, adaxially glabrous, lateral veins 5–9-paired, prominent abaxially, reticulate veins curved and anastomosing near margin, base broadly cuneate or subrounded, margin entire, apex acute and slightly emarginate. Inflorescences terminal or axillary; rachis and pedicels densely tomentose. Sepals 5, elliptic, ca. 3 mm, pubescent, apex obtuse. Petals 5, long elliptic, 5–6 × 1.5–2 mm, shortly tomentose, with red glands. Stamens ca. 10, 5 long ones ca. 7 mm, 5 short ones ca. 3 mm and abortive. Carpel 1, ca. 3 mm, densely softly hairy. Follicle long ellipsoid, slightly compressed laterally, 2.5–3.5 × 1.5–1.8 cm, base gradually narrowed into a short stipe, apex shortly beaked; pericarp thin, glabrous abaxially, pubescent adaxially, indistinctly longitudinally striate. Seed black-purple, oblong, 2–2.5 × 1–1.2 cm, base surrounded by 2-lobed aril.

Moist dense forests. S Guangxi, Yunnan [Myanmar].

CONNARACEAE