

2. **BOMBAX** Linnaeus, Sp. Pl. 1: 511. 1753, nom. cons.

木棉属 mu mian shu

Deciduous big trees; young trunk usually spiny. Leaf blade palmately compound; leaflets 5–9, sometimes petiolulate, with basal joint, margin entire. Flowers bisexual, solitary or fascicled, axillary or terminal. Flowers large, produced before leaf flush. Pedicel shorter than 10 cm. Bracteoles absent. Calyx tubular, campanulate, or cup-shaped, apex truncate to deeply lobed, sometimes with abaxial glands, leathery, falling with petals and stamens. Petals 5, usually red, sometimes yellow, orange, or white, obovate or obovate-lanceolate, asymmetrical, sometimes reflexed. Stamens 70–900, bases connate into short tube; filaments connate into 5–10 distinct phalanges, alternating with petals; anthers reniform. Ovary syncarpous, 5-locular; ovules many per locule; style filiform, longer than stamens; stigma stellately lobed. Capsule loculicidally dehiscent into 5 valves, valves woody or leathery, with silky wool inside. Seeds small, black, enclosed by wool.

About 50 species: mostly in tropical America, also in tropical Africa, Asia, and Australasia; three species in China.

- 1a. Leaflets abaxially densely tomentose; petals white, ca. 4 cm 3. *B. cambodiense*
- 1b. Leaflets abaxially glabrous or hairy only on veins; petals red or orange-red, 10–15 cm.
 - 2a. Calyx 3.8–5 cm; petals adaxially glabrous; filaments linear; capsule 25–30 cm 1. *B. insigne*
 - 2b. Calyx 2–3(–4.5) cm; petals adaxially stellate pilose; filaments thicker at base than apex; capsule 10–15 cm 2. *B. ceiba*

1. **Bombax insigne** Wallich var. **tenebrosum** (Dunn) A. Robyns, Bull. Jard. Bot. État. 33: 116. 1963.

长果木棉 chang guo mu mian

Bombax tenebrosum Dunn, J. Linn. Soc., Bot. 35: 483, 486. 1903.

Trees to 20 m tall; trunk not spiny; branchlets spiny or not. Petiole longer than leaves, pubescent; leaflets 5–9, petiolules 1.2–1.6 cm; blades obovate or oblanceolate, 10–15 × 4–5 cm, nearly leathery, abaxially villous only on midrib and lateral veins, base tapering, apex shortly acuminate. Flowers nearly terminal. Pedicel rod-shaped, ca. 1.9 cm, robust. Calyx urceolate or globose, 3.8–5 cm, abaxially nearly glabrous, adaxially very densely woolly, apex obscurely lobed. Petals red, orange, or yellow, oblong or filiform, boat-shaped, incurved, 10–15 × ca. 3 cm, fleshy, abaxially sericeous, adaxially glabrous, obtuse. Stamens ca. 150; filament tube ca. 1.2 cm, filaments filiform, in 5 fascicles, shorter than petals. Capsule brown, long cylindrical, 5-angular, 25–30 × 3.5–5.5 cm, glabrous. Fl. Mar, fr. Apr.

- Forests on limestone; 500–1000 m. S Yunnan.

Bombax insigne var. *insigne* is found in Laos, Myanmar, and Vietnam. It differs by the glabrous petiole and abaxial leaflet surfaces.

2. **Bombax ceiba** Linnaeus, Sp. Pl. 1: 511. 1753, nom. cons.

木棉 mu mian

Bombax malabaricum Candolle; *Gossampinus malabarica* (Candolle) Merrill; *Salmalia malabarica* (Candolle) Schott & Endlicher.

Trees to 25 m tall; trunk buttressed, usually very spiny on young trees; bark gray-white; branches spreading. Stipules minute; petiole 10–20 cm; leaflets 5–7, petiolules 1.5–4 cm; blades oblong to oblong-lanceolate, 10–16 × 3.5–5.5 cm, glabrous, lateral veins 15–17 on each side of midrib, ascending, base broad or tapering, apex acuminate. Flowers solitary, terminal, ca. 10 cm in diam. Calyx cup-shaped, 2–3(–4.5) cm, abaxially glabrous, adaxially densely yellowish sericeous, calyx

lobes 3–5, semi-orbicular, ca. 1.5 × 2.3 cm. Petals usually red, sometimes orange-red, obovate-oblong, 8–10 × 3–4 cm, fleshy, both surfaces stellate puberulent, but sparser adaxially. Filament tube short, filaments thicker at base than apex, outer series in 5 fascicles, each with more than 10 stamens, inner series bifid, central filaments with 10 stamens shorter, entire. Capsule ellipsoid, 10–15 × 4.5–5 cm, densely gray-white villous and stellate puberulent. Seeds many, obovate, smooth. Fl. Mar–Apr, fr. summer.

Hot dry river valleys, savanna; below 1400 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Jiangxi, Sichuan, Taiwan, Yunnan [Bangladesh, Bhutan, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Papua New Guinea, Philippines, Sri Lanka; introduced elsewhere].

Bombax ceiba was formerly cultivated for its seed floss (kapok), which is of lower quality than that from *Ceiba pentandra*. *Bombax ceiba* var. *leiocarpum* A. Robyns, distinguished by the glabrous ovary and fruit, is found in N Australia.

3. **Bombax cambodiense** Pierre, Fl. Forest. Cochinch. t. 174. 1888.

澜沧木棉 lan cang mu mian

Bombax anceps Pierre var. *cambodiense* (Pierre) A. Robyns; *B. insigne* Wallich var. *cambodiense* (Pierre) Prain; *B. kerrii* Prain; *Gossampinus cambodiensis* (Pierre) Backhuizen.

Trees 20–25 m tall; bark gray, with many conic spines; branches and branchlets tomentose. Petiole 20–32 cm, distinctively 4-grooved; leaflets 7, petiolules 1–1.2 cm, abaxially hairy; blades 15–28 × 6–12 cm, abaxially tomentose or woolly, lateral veins ca. 25 per side of midrib, abaxially raised, base obtuse, apex acute. Flowers large, solitary or clustered, subapical. Pedicel rough, 25–35 mm; bracteoles 3 or 4. Calyx tube closed, ca. 5 × 3.5 cm wide, abaxially pubescent, adaxially hispid and tomentose, apex 3-toothed. Petals white, obovate, ca. 4 cm, both surfaces hairy. Stamens ca. 400, fascicled; filament tube ca. 15 mm, filaments filiform, glabrous. Ovary conic, pubescent; ovules ca. 80 per locule; style hairy, very short, apex 5-lobed. Fl. and fr. Nov–Dec.

Usually growing as isolated trees along riverbanks, rare; ca. 1400 m. S Yunnan [Cambodia, Myanmar, Thailand].

Bombax cambodiense has been treated as a variety of *B. anceps*, which occurs in Cambodia, Laos, Malaysia, and Vietnam and differs by the smaller, glabrous leaflets, 6.5–16 × 2.5–6.5 cm, and by the red, not white, petals.

Flora of China 12: 300–301. 2007.