4. SPONDIAS Linnaeus, Sp. Pl. 1: 371. 1753.

槟榔青属 bing lang qing shu

Allospondias Stapf; Evia Commerson ex Blume; Skoliostigma Lauterbach; Solenocarpus Wight & Arnott; Wirtgenia Junghuhn ex Hasskarl.

Entirely or partly deciduous trees. Leaves alternate, spirally arranged, petiolate, imparipinnately compound; leaflet margin serrate or entire. Inflorescence paniculate, terminal or axillary. Flowers 4- or 5-merous, bisexual or functionally unisexual. Stamens 8–10; filaments subulate to filiform, equal in length. Disk intrastaminal, 10-crenate to crenulate. Ovary 4- or 5-locular, with 1 ovule per locule; styles 4 or 5, free, or style 1. Fruit drupaceous; mesocarp juicy; endocarp woody or bony, covered by a fibrous matrix; embryo elongate, straight to slightly curved.

About 11 species: tropical America and tropical Asia; two species in China.

- **1. Spondias pinnata** (Linnaeus f.) Kurz, Prelim. Rep. Forest Pegu, App. A, 44; App. B, 42. 1875.

槟榔青 bing lang qing

Mangifera pinnata Linnaeus f., Suppl. Pl. 156. 1782; Poupartia pinnata (Linnaeus f.) Blanco; Spondias acuminata Roxburgh; S. bivenomarginalis K. M. Feng & P. Y. Mao; S. mangifera Willdenow; Tetrastigma megalocarpum W. T. Wang.

Deciduous trees, 10-15 m tall; branchlets yellowish brown, glabrous. Petiole 10–15 cm, petiole and rachis glabrous; leaf blade 30-40 cm, imparipinnately compound with 5-11 opposite leaflets; leaflet petiolule 3-5 mm; leaflet blade ovateoblong to elliptic-oblong, $7-12 \times 4-5$ cm, papery, glabrous on both sides, base cuneate to rounded, often oblique, margin serrate or entire, apex acuminate, lateral veins 12-25 pairs, slightly impressed adaxially, prominent abaxially, joined with submarginal collecting vein. Inflorescence paniculate, terminal, 25-35 cm, glabrous, basal first order branches 10-15 cm. Flower sessile or subsessile, white, glabrous. Calyx lobes triangular, ca. 0.5 mm. Petals ovate-oblong, ca. 2.5 × 1.5 mm, apically acute. Stamens ca. 1.5 mm. Ovary subglobose, ca. 1 mm; styles 4 or 5, free, ca. 0.5 mm. Drupe ellipsoid to ellipticovoid, yellowish orange at maturity, 3.5-5 × 2.5-3.5 cm; inner part of endocarp woody and grooved, outer part fibrous; mature fruit usually with 2 or 3 seeds. Fl. Apr-Jun, fr. Aug-Sep.

Lowland and hill forests; 300–1200 m. S Guangxi, Hainan, S Yunnan [probably native to Indonesia and the Philippines; widely cultivated and naturalized in Bhutan, Cambodia, India, Indonesia, Laos, Malaysia (peninsular), Myanmar, Nepal, Philippines, Singapore, Thailand, and Vietnam].

2. Spondias lakonensis Pierre, Fl. Forest. Cochinch. 5: t. 375. 1898.

岭南酸枣 ling nan suan zao

Deciduous trees, 8–15 m tall; branchlets grayish brown, minutely pubescent. Petiole and rachis terete, minutely pubescent; leaf blade 25–67 cm, imparipinnate with 11–23 opposite to alternate leaflets; leaflet petiolule ca. 2 mm, minutely pubescent; leaflet blade oblong or oblong-lanceolate, 6–13 × 1.5–4 cm, minutely pubescent abaxially along veins, with tufts of hairs in axils of lateral veins, base oblique, broadly cuneate to somewhat rounded, margin entire, apex acuminate, lateral

veins 8–10 pairs, without submarginal collecting veins. Inflorescences paniculate, axillary, 15–35 cm, minutely grayish brown pubescent, loosely branched. Flowers subtended by puberulent 0.5–1 mm bracts,

with articulate and minutely pubescent 2.5–3.4 mm pedicels. Calyx ca. 0.6 mm, minutely pubescent, lobes obtuse apically. Petals white, oblong to ovate-oblong, ca. 2.5 \times 1 mm, glabrous, 3-veined. Stamens ca. 2.5 mm. Ovary 4(or 5)-locular; style 1. Drupe ovate to obovate, \pm angled, red at maturity, 8–10 \times 6–7 mm; endocarp 4-angled in cross section, 4-locular with 1 seed per locule.

Forests. Fujian, Guangdong, Guangxi, Hainan, S and SE Yunnan [Laos, Thailand, Vietnam].

- 1b. Leaflets with long hairs on both sides; inflorescence grayish yellow tomentose 2b. var. *hirsuta*

2a. Spondias lakonensis var. lakonensis

岭南酸枣(原变种) ling nan suan zao (yuan bian zhong)

Allospondias lakonensis (Pierre) Stapf; Poupartia chinensis Merrill.

Leaf blade 25–35 cm; leaflet blade $6-10 \times 1.5-3$ cm, abaxially minutely pubescent along nerves and with tufts of hair in axils of lateral veins. Inflorescence paniculate, 15–25 cm, minutely grayish brown pubescent. Fl. May–Jun, fr. Sep–Dec.

Forests. Fujian, Guangdong, Guangxi, Hainan [Laos, Thailand, Vietnam].

2b. Spondias lakonensis var. hirsuta C. Y. Wu & T. L. Ming, Fl. Yunnan. 2: 374. 1979.

毛叶岭南酸枣 mao ye ling nan suan zao

Leaf blade 25–67 cm; leaflet blade $6-13 \times 1.5$ –4 cm, with long hairs on both sides. Inflorescence paniculate, to 35 cm, grayish yellow tomentose. Fl. Apr–May, fr. Jun–Oct.

• Lowland forests. S and SE Yunnan (Hekou, Jinping, Mengla).