

2. TERMINALIA Linnaeus, Syst. Nat., ed. 12, 2: 665, 674 [“638”]; Mant. Pl. 1: 21, 128. 1767, nom. cons.

诃子属 he zi shu

Adamaram Adanson; *Badamia* Gaertner; *Buceras* P. Browne; *Bucida* Linnaeus, nom. cons.; *Myrobalanus* Gaertner; *Pentaptera* Roxburgh.

Trees, often very large and buttressed, rarely shrubs. Branches often in tiers. Leaves spiraled, alternate, subopposite, or opposite, often crowded into pseudowhorls at apices of branchlets; leaf blade oblong, elliptic, obovate, or orbicular, hairy or glabrous, often minutely verruculose and translucent dotted (from calcium oxalate crystals), often with domatia, often with 2 or more glands at or above leaf blade base or on petiole. Inflorescences axillary or terminal spikes or racemes, sometimes panicles, with bisexual flowers toward base of inflorescence and male flowers toward apex. Calyx tube proximally broadly cylindrical to ellipsoid or ovoid, distally cupular or sometimes scarcely developed; lobes 4 or 5, deltoid or ovate. Petals absent. Stamens 8 or 10. Fruit variable in size and shape, often fleshy and drupelike, sometimes dry and leathery or corky, often longitudinally 2–5-winged, or -ridged, sometimes weakly so; endocarp usually at least partly sclerenchymatous.

About 150 species: tropics of Africa, America, and Asia, extending to S Africa, Australia, and Pacific islands; six species in China.

The following species have been recorded as cultivated in China. Two species have fruit with 5 broad wings: *Terminalia alata* Heyne ex Roth (*T. tomentosa* (Roxburgh) Wight & Arnott; *Pentaptera tomentosa* Roxburgh), from India to Vietnam, has been recorded from Guangdong (Guangzhou); *T. arjuna* (Roxburgh ex Candolle) Wight & Arnott (*P. arjuna* Roxburgh ex Candolle), from India, has been recorded from Fujian (Xiamen), Guangdong (Dinghu Shan, Guangzhou, Hong Kong), and Guangxi. These two species may be distinguished by their fruit: *T. alata* has fruit ovoid, ca. 3 cm, with wings not or scarcely extending beyond the apex, whereas *T. arjuna* has fruit obovoid, ca. 5 cm, with wings obviously extending beyond the apex. *Terminalia muelleri* Benth (*Myrobalanus muelleri* (Benth) Kuntze), from Australia, is similar to *T. catappa* but with fruit only ca. 1.6 cm; it has been recorded from Guangdong (Guangzhou). In addition, *T. mantaly* H. Perrier, from Madagascar, with small, cuneate-oblong leaves 5–7 cm and short spikes 4–5 cm, has been recorded as a street tree in Taiwan (Taizhong).

- 1a. Fruit 2- or 3-winged (or plants cultivated; fruit 5-winged: see *T. alata* and *T. arjuna* above).
 - 2a. Fruit 3-winged, (1.5–)2–3.5 × (1–)1.5–2 cm, glabrous; glands absent at petiole apex or leaf blade base 1. *T. nigrovenulosa*
 - 2b. Fruit 2- or 3-winged, 0.3–1 cm, sparsely pubescent to densely villous; 2 glands present at petiole apex or leaf blade base.
 - 3a. Trees evergreen, to 35 m tall, often buttressed, to 2.8 m d.b.h.; leaf blade 10–25(–30) cm, 2–4 × as long as wide; fruit wider than long, 2-winged, sometimes also with 1 rudimentary wing between wings 2. *T. myriocarpa*
 - 3b. Shrubs or trees deciduous, 0.6–10 m tall; leaf blade 1.5–6.5(–11) cm, 1–2 × as long as wide; fruit longer than wide, 3-winged 3. *T. franchetii*
- 1b. Fruit 2- or 5-ridged, sometimes weakly so, sometimes narrowly 2-winged (and then fruit 3–5.5 cm: *T. catappa*).
 - 4a. Leaves spaced along branchlets, leaf blade elliptic; fruit obtusely 5-ridged, glabrous 4. *T. chebula*
 - 4b. Leaves crowded into pseudowhorls at apices of branchlets, leaf blade obovate to oblanceolate; fruit 5-ridged and then velutinous or sericeous, or 2-ridged or -winged and then glabrous.
 - 5a. Fruit subglobose to broadly ellipsoid or ovoid, weakly to strongly 5-ridged, 2–3 cm, densely and finely velutinous or sericeous; leaf blade obovate, base obtuse-rounded or attenuate, lateral veins in 5–8 pairs; petiole 3–9 cm 5. *T. bellirica*
 - 5b. Fruit ellipsoid, slightly to strongly compressed, strongly 2-ridged to narrowly 2-winged, 3–5.5 cm, glabrous; leaf blade obovate to oblanceolate, narrowed in proximal half toward a narrow, cordate or truncate base, lateral veins in 10–12 pairs; petiole 0.5–2 cm (or plants cultivated; fruit ca. 1.6 cm: see *T. muelleri* above) 6. *T. catappa*

1. Terminalia nigrovenulosa Pierre in Lanessan, Pl. Util. Col. Franç. 315. 1886 [“*inguovenulosa*”].

海南榄仁 hai nan lan ren

Terminalia hainanensis Exell; *T. obliqua* Craib; *T. triptera* Stapf (1895), not Franchet (1896); *T. tripteroideis* Craib.

Trees or shrubs to 15 m tall; trunk to 0.5 m d.b.h. Bark gray-white, gray, yellowish brown, gray-brown, or brown, spotted. Branchlets gray or brown, slender, longitudinally corrugated, yellow orbicular lenticellate, glabrous. Leaves alternate or subopposite, grouped at apices of branchlets; petiole 1–2.4

cm, apex (or leaf blade base) without glands; leaf blade green abaxially, deep green adaxially, oblong-elliptic to broadly elliptic, ovate, obovate, or sometimes suborbicular, 4–11 × 2.5–5.5 cm, with glands near margin, glabrous, puberulous on midvein, or abaxially thinly pilose when young, base truncate, rounded, or obtuse, apex mucronate or acuminate, rarely retuse; lateral veins in (6–)8–10 pairs. Inflorescences terminal and axillary spikes, many grouped at branchlet apex and forming a panicle 4–8 cm; axes densely deep yellow and red tomentose. Flowers fragrant. Calyx tube distally cupular, ca. 1.5 mm, abaxially usually glabrous, rarely minutely tomentose, adaxially densely white long hairy; lobes 4 or 5. Stamens 8–10, exserted, 3–4.5 mm.

Fruit not or scarcely stipitate, green tinged with red, scarlet, deep brown, black and purple, or green-purple when ripe, ellipsoid or obovoid, 3-winged, (1.5–)2–3.5 × (1–)1.5–2 cm, glabrous, base broadly obtuse to oblique and rounded; wings subleathery, transversely striate, margin shallowly undulate, apical part obtusely deltoid, extending 5–8 mm beyond seed-bearing part of fruit. Fl. May–Sep, fr. Jul–Feb.

Forests, mixed forests, woods, sparse woods, thickets, mountains, seashores, dry sandy seashores; sea level to 500 m. Hainan [Cambodia, Laos, Malaysia (NW Peninsular Malaysia and Lankawi Islands), Myanmar, Thailand, Vietnam].

Terminalia hainanensis, described from Hainan, and *T. nigrovenulosa* (S Vietnam), *T. obliqua* (Thailand), *T. triptera* Stapf (Malaysia: Lankawi Islands), and *T. tripteroides* (Thailand) are all clearly the same species. This was already realized by Lecompte (in Aubréville, Fl. Cambodge Laos Vietnam 10: 92. 1969). The name *T. nigrovenulosa* has priority.

2. Terminalia myriocarpa Van Heurck & Müller Argoviensis in Van Heurck, Observ. Bot. 215. 1871.

千果榄仁 qian guo lan ren

Trees evergreen, to 35 m tall; trunk to 2.8 m d.b.h., with large buttresses. Branchlets cylindric, together with petioles glabrous, minutely brownish hirsute when young, or rarely densely brownish long stiff hirsute. Leaves opposite; petiole 0.5–1.5 cm, stout, with 2 stalked glands at apex; leaf blade oblong-elliptic or oblong-lanceolate, 10–25(–30) × 4–10(–15) cm, 2–4 × as long as wide, thickly papery, sparsely brownish hirsute abaxially and on veins adaxially when young, glabrescent or later glabrous, or rarely appressed yellowish brown sericeous when young, later sparsely (except on veins) hairy abaxially and subglabrous adaxially, base obtuse, margin entire or slightly undulate, rarely conspicuously toothed, apex with short, oblique tip; midvein yellow adaxially; lateral veins in 15–35 pairs. Inflorescences terminal or axillary, simple or compound, long, slender spikes, many grouped at branchlet apex and forming a large panicle 18–30(–50) cm; axes densely yellow tomentose. Calyx tube distally cupular, 2.5–3 mm, abaxially tomentose on ovary, glabrous on cupular part, adaxially tomentose; lobes 5. Stamens 10, exserted, 2–3 mm. Fruit not stipitate, yellowish when dry, 2-winged, 0.3–0.6 × 0.8–1.2 cm (broader than long); wings opposite, oblong, equal, membranous, sparsely pubescent, glabrescent, sometimes with 1 rudimentary wing seated between them. Fl. Aug–Sep, fr. Oct–Jan.

Forests, streamsides in mountain valleys, one of the upper-layer canopy trees in primary forests; 600–2100(–2500) m. Guangdong (probably planted), SW Guangxi, SE Xizang, Yunnan [Bangladesh, Bhutan, NE India, Indonesia (N Sumatra), Laos, Malaysia, N Myanmar, Nepal, Thailand, N Vietnam].

This species was listed as vulnerable in China by Liu (in Fu & Jin, China Pl. Red Data Book 1: 226–227. 1992).

1a. Margin of leaf blade entire or slightly undulate; branchlets and petioles glabrous, or minutely brownish hirsute when young; leaf blade sparsely brownish hirsute abaxially and on veins adaxially when young, glabrescent or later glabrous 2a. var. *myriocarpa*

1b. Margin of leaf blade conspicuously toothed; branchlets and petioles densely brownish long stiff hirsute; leaf blade appressed yellowish brown sericeous when young, later sparsely (except on veins) hairy abaxially and subglabrous adaxially 2b. var. *hirsuta*

2a. Terminalia myriocarpa var. *myriocarpa*

千果榄仁(原变种) qian guo lan ren (yuan bian zhong)

Myrobalanus myriocarpa (Van Heurck & Müller Argoviensis) Kuntze.

Branchlets and petioles glabrous, or minutely brownish hirsute when young. Leaf blade sparsely brownish hirsute abaxially and on veins adaxially when young, glabrescent or later glabrous, margin entire or slightly undulate.

Forests, one of the upper-layer canopy trees in primary forests; 600–1500(–2500) m. Guangdong (Zhongshan, probably planted), SW Guangxi (Longzhou), SE Xizang (Mêdog), C and S Yunnan [Bangladesh, Bhutan, NE India, Indonesia (N Sumatra), Laos, Malaysia, N Myanmar, Nepal, Thailand, N Vietnam].

The name "*Terminalia saja*" (Steudel, Nomencl. Bot., ed. 2, 2: 669. 1841) is a nomen nudum. Steudel cited the synonym "*Pentaptera saja*" (Wallich, Numer. List no. 3983. 1831), but that name also is a nomen nudum.

2b. Terminalia myriocarpa var. *hirsuta* Craib, Fl. Siam. 1: 606. 1931.

硬毛千果榄仁 ying mao qian guo lan ren

Branchlets and petioles densely brownish long stiff hirsute. Leaf blade appressed yellowish brown sericeous when young, later sparsely (except on veins) hairy abaxially and subglabrous adaxially, margin conspicuously toothed. Fr. Oct.

Forests, streamsides in mountain valleys; 1000–2100 m. W Yunnan (Lushui) [N Thailand].

This variety is maintained here as separate from typical *Terminalia myriocarpa* not merely as a hairy variant, but also because of the conspicuously toothed leaf blade margin.

3. Terminalia franchetii Gagnepain, Notul. Syst. (Paris) 3: 287. 1917.

滇榄仁 dian lan ren

Shrubs or trees deciduous, 0.6–10 m tall. Bark longitudinally striate when old. Branches slender, golden velvety, or with pilose hairs gradually deciduous when old. Leaves alternate; petiole 0.4–1.5 cm, densely or sparsely brownish yellow tomentose or glabrous, with 2 glands at apex; leaf blade oblong to elliptic, ovate or broadly so, or obovate, 1.5–6.5(–11) × 1.2–4.5(–6.5) cm, 1–2 × as long as wide, papery, abaxially densely yellow or brown appressed sericeous, glabrescent, glabrous except hairy on veins and margin, or if sparsely hairy then not appressed sericeous, adaxially tomentose to ± glabrous, or both surfaces glabrous, base cordate, truncate, rounded, obtuse, or cuneate, apex retuse, rounded, or obtuse, mucronate; lateral veins in 5–15 pairs. Inflorescences axillary or terminal, simple spikes, 2.5–10(–12) cm; axis hairy. Calyx tube distally cupular or salverform, 4–5 mm, abaxially villous, or densely yellowish long

hairy on ovary and with fewer hairs on cupular part, adaxially long hairy or yellow pappose; lobes 5. Stamens 10, exerted, 4–5 mm. Fruit usually not stipitate, obovoid or broadly cylindrical, deltoid in transverse section, 3-winged, 0.5–1 × 0.3–0.7 cm, yellowish brown (rarely white) tomentose or villous, usually densely so, or shortly and rather sparsely whitish pubescent, base obtuse, apex acute or acuminate; stipe rarely present (?in Thailand only) and then to 6 mm. Fl. Apr–Jul, fr. May–Dec.

Mixed forests, scattered forests, dry scrub forests, thickets, open thickets, thicket margins, scrub, open stony hills, slopes, dry river valleys, stony river deposits, cliff ledges, open dry places; (1000–)1100–3700 m. NW Guangxi, SW Sichuan, SE Xizang, Yunnan [N Thailand].

- 1a. Leaf blade 5–6.5(–11) × 2.5–4.5(–6.5) cm, usually hairy, at least abaxially, often densely so; spikes 4–10(–12) cm; trees or shrubs 1.5–10 m tall 3a. var. *franchetii*
- 1b. Leaf blade 1.5–4 × 1.2–2.5 cm, both surfaces glabrous; spikes 2.5–5 cm; shrubs 0.6–5 m tall 3b. var. *intricata*

3a. Terminalia franchetii var. franchetii

滇榄仁(原变种) dian lan ren (yuan bian zhong)

Terminalia triptera Franchet, J. Bot. (Morot) 10: 291. 1896, not Stapf (1895); *T. dukouensis* W. P. Fang & P. C. Kao; *T. franchetii* var. *glabra* Exell; *T. franchetii* var. *membranifolia* A. C. Chao; *T. franchetii* var. *tomentosa* Nanakorn; *T. micans* Handel-Mazzetti, nom. illeg. superfl.

Trees or shrubs 1.5–10 m tall. Leaf blade 5–6.5(–11) × 2.5–4.5(–6.5) cm, abaxially densely yellow or brown appressed sericeous, glabrescent, glabrous except hairy on veins and margin, or if sparsely hairy then not appressed sericeous, adaxially tomentose to ± glabrous. Spikes 4–10(–12) cm. Fl. Apr–Jul, fr. May–Dec.

Mixed forests, scattered forests, thickets, thicket margins, dry scrub, open scrub, open stony hills, slopes, dry river valleys, open dry places; (1000–)1100–3700 m. NW Guangxi (Longlin), SW Sichuan, Yunnan [N Thailand].

As circumscribed here, *Terminalia franchetii* var. *franchetii* displays considerable variation in the size of the leaf blades and the density and distribution of their indumentum. For example, plants from S Yunnan with larger, less hairy leaf blades have been called *T. franchetii* var. *membranifolia*, and plants from the Jinsha Jiang in SW Sichuan and NW Yunnan with glabrous to sparsely hairy leaf blades have been called *T. franchetii* var. *glabra*. Plants from Dukou in S Sichuan with hairy leaves at the large end of the size range were named *T. dukouensis*, and plants from N Thailand with hairy leaf blades and shortly stalked flowers and fruit were named *T. franchetii* var. *tomentosa*. However, apart from the minor detail of stalked flowers and fruit in the entity from Thailand, there seem to be no clear-cut discontinuities between typical *T. franchetii* and these variants, so they are not recognized as distinct taxa here. On the other hand, plants named *T. intricata* from the dry valley region where Sichuan, Xizang, and Yunnan meet appear to represent a distinct, xerophytic, local variant of *T. franchetii* and are accordingly recognized here at varietal rank.

3b. Terminalia franchetii var. intricata (Handel-Mazzetti) Turland & C. Chen, **comb. et stat. nov.**

错枝榄仁 cuo zhi lan ren

Basionym: *Terminalia intricata* Handel-Mazzetti, Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 60: 97. 1924.

Shrubs 0.6–5 m tall. Leaf blade 1.5–4 × 1.2–2.5 cm, both surfaces glabrous. Spikes 2.5–5 cm. Fl. May–Jun, fr. Jun–Nov.

• Dry scrub forests, thickets, open thickets, scrub on open rocky slopes, stony river deposits, cliff ledges, open dry places; 1900–3400 m. SW Sichuan (Dèrong, Xiangcheng), SE Xizang (Markam), NW Yunnan.

4. Terminalia chebula Retzius, Observ. Bot. 5: 31. 1788.

诃子 he zi

Trees to 30 m tall; trunk to 1 m d.b.h. Bark grayish black to gray, coarsely split and thick. Branchlets conspicuously white or yellowish long lenticellate, glabrous, or tomentose or appressed villous at least when young, hairs tawny, rarely silvery. Leaves alternate or subopposite, spaced along branchlets; petiole 1–3 cm, moderately stout, with 2(–4) glands 1–5 mm below apex; leaf blade elliptic, 7–18 × 4.5–10 cm, both surfaces glabrous, or appressed (and rarely silvery) villous at least when young, base obtuse-rounded or cuneate, oblique, apex mucronate; lateral veins in 6–12 pairs. Inflorescences axillary or terminal, simple spikes, 5–10 cm, numerous flowered, sometimes grouped at branchlet apex and forming a panicle; axis glabrous or sparsely hairy, with denser hairs near base of flowers. Flowers slightly fragrant, bisexual. Calyx tube distally cupular, 2.5–3.5 mm, abaxially glabrous, adaxially tawny tomentose; lobes 5, apex mucronate to aristate. Stamens 10, exerted, 3–4 mm. Fruit not stipitate, blackish brown when ripe, ovoid or broadly so, ellipsoid, or cylindrical-ovoid, obtusely 5-ridged, 2–4.5 × 1.2–2.5 cm, rigid, becoming deeply wrinkled when dry, glabrous. Fl. May–Jun, Sep, fr. Jul–Dec. *2n* = 24, 48, 72.

Sparse forests, secondary bamboo forests, sunny forest margins, thickets, also cultivated on village commons; below 500 to 1800 m. Native in W Yunnan; cultivated in Fujian, Guangdong, Guangxi (Nanning), and Taiwan (Nantou) [Bangladesh, Bhutan, Cambodia, India, Laos, Malaysia (introduced), Myanmar, Nepal, Sri Lanka, Thailand, Vietnam].

The fruit yields a black dye used to dye cloth, at least in Guangdong.

- 1a. Branchlets and both surfaces of leaf blade glabrous, or tawny tomentose only when young 4a. var. *chebula*
- 1b. Branchlets and both surfaces of leaf blade appressed tawny villous or densely appressed silvery tomentose at least when young 4b. var. *tomentella*

4a. Terminalia chebula var. chebula

诃子(原变种) he zi (yuan bian zhong)

Embryogonia arborea Teijsmann & Binnendijk; *Myrobalanus chebula* (Retzius) Gaertner; *M. gangetica* (Roxburgh) Kostelezky; *Terminalia acuta* Walpers; *T. gangetica* Roxburgh; *T. parviflora* Thwaites (1859), not C. Presl (1851); *T. reticulata* Roth; *T. zeylanica* Van Heurck & Müller Argoviensis.

Branchlets and both surfaces of leaf blade glabrous, or tawny tomentose only when young.

Sparse forests, thickets, also cultivated on village commons; 800–1800 m. Native in W Yunnan; cultivated in Fujian, Guangdong, Guangxi (Nanning), and Taiwan (Nantou) [Bangladesh, Bhutan, Cambodia, India, Laos, Malaysia (introduced), Myanmar, Nepal, Sri Lanka, Thailand, Vietnam].

4b. *Terminalia chebula* var. *tomentella* (Kurz) C. B. Clarke in J. D. Hooker, Fl. Brit. India 2: 446. 1878.

微毛诃子 wei mao he zi

Terminalia tomentella Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 42(2): 80. 1873; *Myrobalanus tomentella* (Kurz) Kuntze; *T. argyrophylla* King & Prain.

Branchlets and both surfaces of leaf blade appressed tawny villous or densely appressed silvery tomentose at least when young.

Secondary bamboo forests, sunny forest margins; below 500 to 1100 m. W Yunnan [Myanmar].

This variety is tentatively maintained, with *Terminalia argyrophylla* included, on account of its persistently hairy branchlets and leaf blades.

5. *Terminalia bellirica* (Gaertner) Roxburgh, Pl. Coromandel 2: 54. 1805 [“*bellerica*”].

毗黎勒 pi li le

Myrobalanus bellirica Gaertner, Fruct. Sem. Pl. 2: 90. 1790 [“*bellirina*”]; *M. laurinoides* (Teijsmann & Binnendijk) Kuntze; *Terminalia attenuata* Edgeworth; *T. bellirica* var. *laurinoides* (Teijsmann & Binnendijk) C. B. Clarke; *T. eglanulosa* Roxburgh ex C. B. Clarke; *T. gella* Dalzell; *T. laurinoides* Teijsmann & Binnendijk; *T. punctata* Roth.

Trees deciduous, to 35 m tall; trunk to 1 m d.b.h., with large buttresses. Bark gray, longitudinally ridged. Branchlets with conspicuous, spirally ascending leaf scars. Leaves spiraled, crowded into pseudowhorls at apices of branchlets; petiole 3–9 cm, glabrous but ferruginous tomentose when young, especially at base, with 2 glands above middle; leaf blade glossy, obovate, 18–26 × 6–12 cm, both surfaces glabrous except ferruginous tomentose when young, base obtuse-rounded or attenuate, apex obtuse or mucronate; lateral veins in 5–8 pairs. Inflorescences axillary, simple spikes, 5–18 cm, often grouped at branchlet apex and forming a panicle; axis densely ferruginous tomentose. Calyx tube distally shallowly cupular, 4–5 mm, abaxially tomentose, adaxially long villous; lobes 5. Stamens 10, exserted, 4–5 mm. Fruit shortly stipitate, subglobose to broadly ellipsoid or ovoid, weakly to strongly 5-ridged, 2–3 × 1.8–2.5 cm, densely and finely velutinous or sericeous; stipe ca. 2 mm. Fl. Mar–Apr, fr. May–Jul. $2n = 48$.

Scattered forests, sunny mountain slopes, one of the upper layer trees of stream valleys and lower seasonal rain forests; 500–1400 m. S Yunnan [Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam; N Australia; introduced in E Africa].

6. *Terminalia catappa* Linnaeus, Syst. Nat., ed. 12, 2: 674 [“638”]; Mant. Pl. 1: 128. 1767.

榄仁树 lan ren shu

Badamia commersonii Gaertner; *Juglans catappa* (Linnaeus)

us) Loureiro; *Myrobalanus catappa* (Linnaeus) Kuntze; *Terminalia catappa* var. *chlorocarpa* Hasskarl; *T. catappa* var. *macrocarpa* Hasskarl; *T. catappa* var. *rhodocarpa* Hasskarl; *T. catappa* var. *subcordata* (Humboldt & Bonpland ex Willdenow) Candolle; *T. intermedia* Bertero ex Sprengel; *T. latifolia* Blanco (1837), not Swartz (1788); *T. moluccana* Lamarck; *T. myrobalana* Roth; *T. ovatifolia* Noronha; *T. paraensis* Martius; *T. procera* Roxburgh; *T. rubrigemmis* Tulasne; *T. subcordata* Humboldt & Bonpland ex Willdenow.

Trees to 20 m tall; trunk to 2 m d.b.h. Bark brownish black, longitudinally peeling. Branches spreading, forming tiers. Branchlets densely brownish yellow tomentose near apex, densely covered with conspicuous leaf scars. Leaves alternate, crowded into pseudowhorls at apices of branchlets; petiole 0.5–2 cm, stout, tomentose; leaf blade obovate to oblanceolate, narrowed in proximal half, 12–30 × 8–15 cm, both surfaces glabrous or abaxially sparsely softly hairy when young, base narrow, cordate or truncate, apex obtuse or mucronate; lateral veins in 10–12 pairs. Inflorescences axillary, simple, long, slender spikes, 15–20 cm, numerous flowered; axis shortly white tomentose. Flowers fragrant. Calyx tube distally cupular, 7–8 mm, abaxially white tomentose, densely so on ovary, sparsely so on cupular part, adaxially glabrous; lobes 5. Stamens 10, exserted, 2–3 mm. Fruit not stipitate, red or blackish green when ripe, ellipsoid, slightly to strongly compressed, strongly 2-ridged to narrowly 2-winged (wings to 3 mm wide), 3–5.5 × 2–3.5 cm, glabrous; pericarp woody, rigid. Fl. Mar–Jun, Oct, fr. May, Jul–Sep.

Sandy seashores, beaches with humid climate, villages, grassy village commons, also cultivated as a roadside tree. Guangdong, Hainan, Taiwan (including Lan Yu), SE Yunnan [Bangladesh, Cambodia, India (including Andaman and Nicobar Islands), Indonesia, Malaysia, Myanmar, New Guinea, Philippines, Thailand, Vietnam; N Australia, Indian Ocean islands, Madagascar, Pacific islands; planted throughout the tropics as a shade tree].

The fruit is edible.

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