

LECYTHIDACEAE

玉蕊科 yu rui ke

Qin Haining (覃海宁)¹; Ghilleen T. Prance²

Trees or shrubs, evergreen. Leaves alternate, usually crowded toward apices of branchlets, shortly petiolate; stipules usually absent; leaf blade simple. Flowers showy, borne in short, bracteate racemes or spikes, actinomorphic or zygomorphic, bisexual. Calyx with a campanulate tube adnate to ovary; lobes 4–6, thick. Petals 4–6, free, rarely absent. Stamens many, united at base into several whorls, often several sterile, either monadelphous and equally arranged around disk, or diadelphous in 2 unequal bundles, outermost staminodial; anthers basifixed, 2-celled, opening by longitudinal slits. Disk sometimes lobed. Ovary inferior or semi-inferior, 2–6-loculed; ovules 1 to many per locule; placentation axile; style terminal, simple; stigma capitate. Fruit an indehiscent berry or operculate capsule, often crowned by persistent calyx lobes. Seed[s] 1 [to many]; endosperm absent.

About 20 genera and 450 species: tropical regions of Africa, Asia, Australia, some Pacific islands, and South America; one genus and three species (one endemic) in China.

Lo Hsien-shui. 1983. Lecythidaceae. In: Fang Wen-pei & Chang Che-yung, eds., Fl. Reipubl. Popularis Sin. 52(2): 121–125.

1. BARRINGTONIA J. R. Forster & G. Forster, Char. Gen. Pl. 38. 1775, nom. cons.

玉蕊属 yu rui shu

Huttum Adanson.

Trees or shrubs. Stipules small, caducous. Leaf blade entire or serrate-crenate at margin. Inflorescences terminal or lateral, erect or pendulous racemes or spikes; bracts and bracteoles sessile, small, caducous. Receptacle obconic, 4-angled or 4-winged. Calyx of 4 or 5 persistent, imbricate lobes inserted on rim of receptacle, or breaking at anthesis into 2–5 persistent pseudo-lobes, or circumscissile leaving a cup-shaped rim. Petals (3 or)4(or 6), basally adhering to staminal tube. Stamens many in 3–8 whorls, shortly connate, innermost 1–3 whorls shorter and sterile. Ovary 2–4-loculed; ovules 2–8 per locule; style exceeding stamens. Fruit sometimes angled or winged, with fleshy-fibrous exocarp and woody-fibrous endocarp. Seed 1, large; embryo fusiform, with spiral scales toward apex; cotyledons absent, hypocotyl erect, thick.

About 56 species: E Africa to Australia, mainly in Asia; three species (one endemic) in China.

- 1a. Leaf blade apically obtuse or broadly rounded; racemes mostly terminal, erect, 5–15 cm; fruit broadly pyramidal; calyx lobes 3–4 cm 1. *B. asiatica*
- 1b. Leaf blade apically acute or acuminate; racemes or spikes terminal, or axillary on old branches, pendulous, 20–80(–100) cm; fruit ovoid-cylindric or fusiform; calyx lobes 0.7–1.3 cm.
 - 2a. Flowers pedicellate, pedicel to 25 mm; fruit ovoid-cylindric 2. *B. racemosa*
 - 2b. Flowers sessile; fruit fusiform 3. *B. fusifarpa*

1. *Barringtonia asiatica* (Linnaeus) Kurz, Prelim. Rep. Forest Veg. Pegu, App. A, lxx. 1875.

滨玉蕊 bin yu rui

Mammea asiatica Linnaeus, Sp. Pl. 1: 512. 1753; *Agasta indica* Miers; *Barringtonia speciosa* J. R. Forster & G. Forster.

Trees 7–20 m tall. Branches stout; bark fissured. Leaves sessile, obovate to obovate-oblong, 20–40 × 10–20 cm, leathery, shiny, base cuneate, margin entire, apex obtuse or broadly rounded. Racemes mostly terminal, erect, 5–15 cm, 5–10(–20)-flowered; bracts ovate, 8–20 mm; bracteoles triangular, 1.5–5 mm. Pedicel 5–9 cm. Flower buds 2–4 cm in diam. Calyx undivided, rupturing at anthesis into 2 or 3 unequal, rounded or acuminate, persistent lobes 3–4 × 2–3 cm and a tube 3–5 mm. Petals 4, white, ovate or elliptic, 5–6 cm. Stamens in 6 whorls; tube 1.5–6 mm; filaments and style white, red-tipped; outer filaments 7–9 cm. Ovary 4-loculed, 5–9 mm; ovules 4 or 5 per locule; style 11–13 cm. Fruit dispersed by floating, broadly

pyramidal, smooth, 9–11 cm, apex tapering and crowned by calyx; pericarp spongy, fibrous. Seed oblong, 4–5 cm. Fl. and fr. almost year-round. $2n = 26$.

Sandy seashores. S Taiwan (including Lan Yu) [Japan, Philippines; Old World tropics].

2. *Barringtonia racemosa* (Linnaeus) Sprengel, Syst. Veg. 3: 127. 1826.

玉蕊 yu rui

Eugenia racemosa Linnaeus, Sp. Pl. 1: 471. 1753; *Barringtonia ceylanica* (Miers) Gardner ex C. B. Clarke; *B. elongata* Korthals; *B. timorensis* Blume; *Butonica apiculata* Miers; *B. ceylanica* Miers; *B. inclyta* Miers; *B. terrestris* Miers.

Shrubs or trees to 27 m tall. Branches pendulous, gray-brown; bark smooth or fissured. Leaves petiolate; petiole 2–15 mm, winged; leaf blade obovate-oblong, 20–35 × 6–14 cm, base cuneate, margin serrate-crenulate, apex acute or acuminate. Racemes usually terminal or in axils of fallen leaves, pendulous,

¹ Institute of Botany, Chinese Academy of Sciences, 20 Nanxincun, Xiangshan, Beijing 100093, People's Republic of China.

² Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE, United Kingdom.

many flowered; bracts triangular, 5–6 mm; bracteoles triangular, 1.5–2 mm. Pedicel to 2.5 cm. Flowers 6–9 mm. Calyx 2–4-lobed, 10–12 cm at anthesis; tube ca. 2.5 mm. Petals 4, green or tinged red or yellow, oblong, 1–1.3 × 0.5–0.8 cm. Stamens in 5 or 6 whorls, innermost sterile; tube 3.5–6 mm; filaments red, proximally white or pink, 3–3.5 cm; staminodes 10–13 mm. Ovary 2–4-loculed, 1.5–3.5 mm; ovules 2 or 3 per locule; style 4–6 cm. Fruit ovoid-cylindric, 4-angled, 5–9 × 3–4 cm; pericarp fibrous but somewhat fleshy. Seed ovoid, 2–4 cm. Fl. and fr. almost year-round. $2n = 52$.

Seashores, along tidal rivers, estuaries. Hainan, Taiwan [Japan; Australia, Old World tropics].

3. *Barringtonia fusicarpa* H. H. Hu, Acta Phytotax. Sin. 8: 200. 1963.

梭果玉蕊 suo guo yu rui

Barringtonia yunnanensis H. H. Hu.

Trees 15–30 m tall, to 1 m d.b.h., glabrous. Branches stout, ribbed; bark gray. Leaves in fascicles at branchlet tips, petiolate; petiole 2–4.5 cm, canaliculate; leaf blade adaxially glaucous when dried, obovate-oblong to oblong, 15–30 × 5–12 cm, papery, base cuneate, margin entire or inconspicuously dentate, apex acuminate; lateral veins in ca. 14 pairs. Spikes terminal or axillary on old branches, long, to 100 cm, pendulous. Flowers sessile. Calyx with tube 2.5–3 mm, becoming 2–4-lobed at anthesis; lobes elliptic to subovate, 0.7–1.3 cm, abaxially pubescent. Petals 4, white or pink-white, elliptic to subovate, 1.5–2 cm. Staminal tube ca. 2.5 mm; filaments pink-red, ca. 2.5 cm. Style filiform, ca. 3.5 cm. Fruit brown, fusiform, to 11 × 4 cm; exocarp pulverulent. Fl. and fr. almost year-round.

• Dense humid forests; 100–800 m. S and SE Yunnan.