

3. HORSFIELDIA Willdenow, Sp. Pl. 4: 872. 1806.

风吹楠属 feng chui nan shu

Endocomia W. J. de Wilde.

Evergreen trees. Leaves dispersed or distichous, papery or thinly leathery, often glabrous, abaxially not glaucous; tertiary veins reticulate, often obscure. Plants monoecious or dioecious. Male inflorescence often compound paniculate; flowers often aggregated into clusters; bracts caducous; bracteole absent. Flowers pedicellate, sometimes shortly so, small. Perianth lobes (2 or)3–5; anthers 4–30, connate abaxially into globose or clavate sessile or stipitate synandrium sometimes concave at apex. Ovary ovoid, glabrous or hairy; style absent. Pericarp often rather thick, glabrous or glabrescent. Aril entire, rarely lacerate at apex; testa thinly woody; cotyledons connate at base.

About 100 species: S Asia, from India to the Philippines, Papua New Guinea; three species in China.

- 1a. Monoecious; twigs (when dry) pale, usually paler than petioles; perianth lobes 3–5, inside papillose hairy; synandrium stipitate, anthers 4–6 (thecae 8); aril lacinate 1/5–1/3 deep, seed variegated 3. *H. prainii*
- 1b. Dioecious; twigs brown, as petioles; perianth lobes 2 or 3(or 4), inside glabrous; synandrium sessile, anthers 10–20 (thecae 20–40); aril (almost) closed, seed not variegated.
 - 2a. Ovary pubescent; male perianth 2.5–3.5 mm in diam., pubescent, anthers 12–20 2. *H. kingii*
 - 2b. Ovary glabrous; male perianth 1.5–2.3 mm in diam., soon glabrescent, anthers 8–15 1. *H. amygdalina*

1. *Horsfieldia amygdalina* (Wallich) Warburg, Monogr. Myr-istic. 310. 1897.

lanata W. J. de Wilde in Cambodia and Thailand and var. *macrocarpa* W. J. de Wilde in Thailand.

风吹楠 feng chui nan

The seeds contain 29%–33% fat, which is used in industry.

Myristica amygdalina Wallich, Pl. Asiat. Rar. 1: 79. 1830; *Horsfieldia prunoides* C. Y. Wu; *H. tonkinensis* Lecomte.

2. *Horsfieldia kingii* (J. D. Hooker) Warburg, Monogr. Myr-istic. 308. 1897.

大叶风吹楠 da ye feng chui nan

Trees to 25 m tall, 20–40 cm d.b.h.; bark grayish white; branches spreading, rarely drooping; twigs brown, nearly glabrous, with light brown ovate lenticels. Leaves distichous or in 3–5 rows; petioles 1–2 cm, pubescent, glabrescent; leaf blade narrowly elliptic or oblong-lanceolate, 9–23 × 2.5–7.5 cm, papery, both surfaces early glabrescent, base attenuate to broadly cuneate, apex acute or acuminate; lateral veins 7–14 pairs, tertiary veins obscure. Plants dioecious. Male inflorescences axillary or in axils of deciduous leaves, paniculate, 8–15 cm, nearly glabrous; bracts elliptic, minute, pubescent, caducous. Male flowers nearly clustered; buds (sub)globose, 1.5–2 mm in diam., as long as pedicels, glabrous; perianth 2- or 3(or 4)-lobed, at anthesis cleft to ca. 1/2; synandrium globose or depressed globose, sessile; anthers 8–15, free. Female inflorescences often inserted on older branches, 3–6 cm, glabrous; peduncles stout. Female flowers ellipsoid, 2–3 mm; ovary ovoid, glabrous; style absent; stigma lobes rounded. Infructescences 5–10 cm. Fruit orange, ovoid or ellipsoid, 3–3.5(–4) × 1.5–2.5 cm, base sometimes narrowed; pericarp fleshy, 2–3 mm thick. Seeds glossy, light reddish brown when dry, ovoid, smooth; aril orange, completely enclosing seeds, sometimes very shortly imbricately lacinate. Fl. Aug–Oct, fr. Mar–May of following year.

Myristica kingii J. D. Hooker, Fl. Brit. India 5: 106. 1886; *Horsfieldia hainanensis* Merrill; *H. tetrapala* C. Y. Wu & W. T. Wang.

Trees to 12 m tall; twigs hollow, smooth or with small lenticels, puberulent to glabrous, dark brown. Leaves in (3–)5 rows; petioles 2.5–4 cm, with deep groove, glabrous; leaf blade obovate or oblanceolate, (12–)28–55 × 5–15 cm, papery, both surfaces glabrous except sometimes midvein pubescent, base narrowed and then acute, or broadly cuneate, apex acute or shortly acuminate, sometimes blunt; lateral veins 14–18 pairs, midvein raised abaxially, sunken adaxially, tertiary veins sparse, nearly parallel, obscure. Plants dioecious. Male inflorescences axillary or arising from axils of deciduous leaves, 9–15 cm, tomentulose to nearly glabrous. Male flowers: pedicel slender, 1–2 mm, nearly as long as flowers; bud globose, 3- or 4-angled, leathery when dry, lobes (2 or)3 or 4(or 5), splitting bud to ca. 3/4; anthers 12–20, connate into globose synandrium. Female inflorescences 3–7 cm, branched. Female flowers: buds nearly globose or obovoid, ca. 5 mm, larger than male, not clustered, lobes 2 or 3; ovary obovoid, pubescent; stigmas sessile. Fruit ovoid to oblong-ellipsoid, 4–4.5 × ca. 2.5 cm, narrowed at ends, early glabrescent; perianth persistent; pericarp thick, leathery. Seeds ovoid, with slightly pointed apex; testa thick, brown and glossy; aril thin, entire. Fl. Apr–Aug, fr. Oct–Dec.

Dense forests on mountain slopes and in ravines, sparse hilly forests; 100–1200 m. Guangdong, Guangxi, Hainan, Yunnan [Bangladesh, India, Laos, Myanmar, Thailand, Vietnam].

Dense forests in ravines; 800–1200 m. Guangxi, Hainan, Yunnan [India (Assam, Sikkim), N Thailand].

In FRPS (30(2): 204. 1979), this species was misidentified as *Horsfieldia glabra* (Blume) Warburg (*Myristica glabra* Blume). True *H. glabra* is distributed in Indonesia.

3. *Horsfieldia prainii* (King) Warburg, Monogr. Myr-istic. 292. 1897.

The above description and distribution apply to *Horsfieldia amygdalina* var. *amygdalina*. Two other varieties occur outside of China: var.

云南风吹楠 yun nan feng chui nan

Myristica prainii King, Ann. Roy. Bot. Gard. Calcutta 3: 299. 1891; *Endocomia macrocoma* (Miquel) W. J. de Wilde subsp. *prainii* (King) W. J. de Wilde; *Horsfieldia longipedunculata* Hu; *H. pandurifolia* Hu.

Trees to 25 m tall; trunk to 50 cm d.b.h.; twigs terete, pubescent, glabrescent, gray or brown, lenticellate or not, glabrous, longitudinally striate, sometimes cracking. Leaves distichous (?always); petioles short or long, (5–)10–30 mm, glabrescent; leaf blade obovate-oblong, rarely ovate-oblong, widest at or above middle, 20–35 × 8–13 cm, papery or leathery, base shortly to long attenuate or cuneate, sometimes rounded, or slightly decurrent on petiole, apex subobtuse to subacute or rounded; nerves 9–20 pairs, average 20 pairs, raised on both surfaces, lateral veins parallel, distinctly interarching; leaf bud 20–25 × ca. 4 mm, ferruginous pubescent. Inflorescences situated just behind leaves, condensed to lax, usually much branched, often purple, 8–30 cm, rusty stellate pubescent or tomentulose, glabrescent. Plants monoecious. Male flowers: pedicel slender, 1.5–2.5 mm; bud ellipsoid or subglobose, 1–2 mm in diam., yellowish or greenish inside, leathery, lobes 3 or 4(or 5), splitting bud to 3/4, diverging; synandrium stipitate, subglobose, ca. 0.5 mm in diam.; anthers 4–6, column ca. 0.5 mm. Female flowers usually a few mixed among male flowers; female bud ovoid-globose, 2.5–3 × 2.5–2.8 mm, split to 3/4; ovary ovoid, ca. 2 mm in diam., glabrous; stigma 2-lobed, each

lobe finely lobulate. Fruiting pedicel 5–20 mm. Fruit ellipsoid to ovoid, 3–4.5 × 1.2–2.5 cm; dry pericarp 1–2.5 mm thick. Seeds 2–3.2 cm, apex acute or shortly beaked; testa variegated; aril orange, at apex either almost entirely closed or lacinate 1/5–1/3 deep.

Primary forests, forests in ravines, valleys; 500–1100 m. S Yunnan [India (Andaman Islands), Indonesia, Papua New Guinea, Philippines, Thailand].

In China, this species has been misidentified as *Horsfieldia valida* (Miquel) Warburg (*Myristica valida* Miquel). True *H. valida* is distributed in Indonesia (Sumatra).

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