

2. HELICIOPSIS Sleumer, Blumea 8: 79. 1955.

假山龙眼属 jia shan long yan shu

Trees, dioecious. Leaves alternate, simple, entire, many lobed, or pinnatipartite. Inflorescences axillary or ramiflorous, rarely terminal on short branchlets, simple, a raceme of flower pairs; bracts of flower pairs linear, subulate, or lanceolate, ± persistent; floral bracts often caducous. Perianth tube straight, slender; limb clavate to ellipsoid, basally dilated, segments revolute at anthesis. Stamens subsessile, inserted at base of limb; anthers oblong; connective apiculate; staminodes present in female flowers. Pollen grains triporate, exine reticulate. Hypogynous glands 4, free, close together. Ovary sessile; ovules 2, orthotropous. Style apically mostly clavate; stigma terminal or lateral, punctiform; pistillode present in male flowers. Fruit drupaceous, exocarp leathery, thin; mesocarp carmose, spongy, or with numerous radial soft fibers, sometimes fibers nearly absent when dry; endocarp hard, woody, rarely thin, outer face reticulate-lacunose. Seed 1 and ± globose or seeds 2 and hemispheric, testa thin, cotyledons fleshy.

About 10 species: SE Asia and E Himalayas; three species (two endemic) in China.

- 1a. Simple leaves with apex obtusely acute to obtuse 3. *H. henryi*
- 1b. Simple leaves with apex acuminate.
 - 2a. Leaves ± leathery; female inflorescences 15–22 cm; pedicel 8–10 mm; fruit 3–4.5 cm, soft fibers nearly absent when dry 1. *H. terminalis*
 - 2b. Leaves leathery; female inflorescences 2–5 cm; pedicel ca. 3 mm; fruit 7–9 cm, soft fibers persistent when dry 2. *H. lobata*

1. *Heliciopsis terminalis* (Kurz) Sleumer, Blumea 8: 80. 1955.

痒腮树 zha sai shu

Helicia terminalis Kurz, Forest Fl. Burma 2: 312. 1877; *Heliciopsis lobata* (Merrill) Sleumer var. *microcarpa* C. Y. Wu & T. Z. Hsu.

Trees 5–15 m tall. Young branchlets rust-colored tomentose, glabrescent. Leaves dimorphic, simple or tripartite to pinnatipartite; petiole 1–2.5 cm for simple leaves, 4–5 cm for divided leaves; leaf blade ± leathery, glabrescent in age, base cuneate to attenuate, margin entire, apex shortly acuminate, acuminate, or sometimes obtusely acute; secondary and reticulate veins conspicuous on both surfaces. Simple leaf blade oblanceolate to oblong, 12–35 × 4–10 cm. Divided leaf blade 25–60 × 15–50 cm, lobes 1–7 pairs, sinuses somewhat rounded. Inflorescences axillary or ramiflorous, rarely terminal on short branchlet, pilose; bracts of flower pairs linear to subulate 0.5–2 mm; floral bracts linear, ca. 0.5 mm. Perianth white or yellowish. Male inflorescences 10–20 cm. Female inflorescences stout, 15–22 cm. Male flowers: pedicel 5–7 mm; perianth 1.1–1.4 cm; anthers ca. 2.5 mm; pistillode glabrous; style apically clavate. Female flowers: pedicel 8–10 mm; perianth ca. 1.2 cm; staminodes ca. 1.5 mm; ovary ovoid, glabrous; style ca. 1 cm, apex ± compressed; stigma lateral. Fruit brownish, ellipsoid, 3–4.5 × 1.7–3 cm; exocarp ca. 0.5 mm thick; mesocarp ca. 1.5 mm thick, soft fibers nearly absent when dry; endocarp 0.5–1.5 mm thick. Fl. Mar–Jun, fr. Aug–Nov.

Rain forests; below 100 to 700(–1400) m. E Guangdong, SE Guangxi, Hainan, S to SE Yunnan [Bhutan, Cambodia, NE India, Myanmar, Thailand, Vietnam].

This species is used medicinally.

2. *Heliciopsis lobata* (Merrill) Sleumer, Blumea 8: 83. 1955.

调羹树 tiao geng shu

Helicia lobata Merrill, Lingnan Sci. J. 6: 276. 1928; *H. caulifloroides* W. T. Wang.

Trees 5–20 m tall. Young branchlets and leaves appressed

rust-colored tomentose. Leaves dimorphic, simple or pinnatipartite; petiole 4–8 cm; leaf blade leathery, base cuneate, abaxially tomentose along reticulate veins but glabrescent, adaxially glabrescent, margin entire, apex shortly acuminate; reticulate veins raised, conspicuous. Simple leaf blade oblong, 10–25 × 5–7 cm. Pinnatipartite leaf blade 20–60 × 20–40 cm, lobes 2–8 pairs, sinuses somewhat rounded. Inflorescences ramiflorous, pilose; bracts of flower pairs lanceolate, ca. 1 mm. Male inflorescences 7–12 cm. Female inflorescences 2–5 cm. Perianth yellowish, pilose. Male flowers: pedicel 1–2 mm to subsessile; perianth 0.8–1.2 cm; anthers ca. 2 mm; hypogynous glands free; pistillode glabrous. Female flowers: pedicel ca. 3 mm; perianth ca. 1 cm, pilose; staminodes ca. 1.5 mm; ovary ovoid, glabrous; style ca. 8 mm, apex ± clavate; stigma lateral. Fruit yellowish green, ellipsoid to ovoid-ellipsoid, somewhat compressed, 7–9 × 5–6 cm; exocarp ca. 1 mm thick; mesocarp 2–4 mm thick, soft fibers numerous and persistent when dry; endocarp 3–4 mm thick. Fl. May–Jul, fr. Nov–Dec.

- Rain forests; below 100 to 800 m. Hainan.

This species provides timber and edible seeds.

3. *Heliciopsis henryi* (Diels) W. T. Wang, Acta Phytotax. Sin. 5: 307. 1956.

假山龙眼 jia shan long yan

Helicia henryi Diels, Repert. Spec. Nov. Regni Veg. 13: 528. 1915; *H. pallidiflora* W. W. Smith.

Trees 5–15 m tall. Branchlets apically rust-colored tomentose, glabrescent. Petiole 1–1.5 cm; simple leaf blade oblanceolate to oblong, 15–24 × 4–8 cm, ± leathery, glabrescent in age, base cuneate, margin entire, apex obtusely acute, obtuse, or sometimes retuse; secondary and reticulate veins conspicuous on both surfaces. Pinnatipartite leaf blade not seen. Inflorescences ramiflorous, sometimes terminal on short branchlets, pilose; bracts of flower pairs lanceolate, 1.5–2 mm; floral bracts linear, ca. 1 mm. Male inflorescences 17–30 cm. Female inflorescences 15–20 cm. Perianth yellowish. Male flowers: pedicel 6–8 mm; perianth 0.8–1.2 cm; anthers 2.5–3 mm; pistillode

glabrous, without a stigma. Female flowers: pedicel 8–10 mm; perianth ca. 1 cm; staminode ca. 1.5 mm; ovary ovoid, glabrous; style ca. 8 mm, apex ± compressed; stigma lateral. Fruit brownish, ellipsoid, 3.5–4.5 × 2.5–3 cm; exocarp ca. 1 mm

thick; mesocarp ca. 2 mm thick, spongy when dry; endocarp 1–2 mm thick. Fl. May–Jun, fr. Oct–May.

- Rain forests; 900–1500 m. S Yunnan.

