

6. NOTHAPODYTES Blume, Mus. Bot. 1: 248. 1851.

假柴龙树属 *jia chai long shu shu*

Trees or shrubs. Branchlets usually angular. Leaves alternate, rarely opposite; petiole grooved; leaf blade entire, veins pinnate. Cymes or corymbs terminal, rarely axillary. Flowers usually foetid, bisexual or polygamous, without bracts. Calyx persistent, cupular or campanulate, small, shallowly 5-lobed. Petals 5, loriform, valvate, outside strigose, inside villous, apex reflexed, usually glabrous. Stamens usually free; filaments filiform, usually flat, fleshy, basally slightly dilated; anthers ovoid. Disk leaflike, inside hairy, 5–10-lobed. Ovary hispid, rarely glabrous; style filiform to shortly conical; stigma capitate, truncate, rarely 2-lobed or concave. Drupe ellipsoid, ovoid, or oblong-obovoid, berrylike; mesocarp fleshy; endocarp thin, rugose or smooth. Seeds with copious endosperm.

Seven species: tropical Asia, reaching into temperate regions of China; six species (five endemic) in China.

1a. Leaf blade glabrous.

2a. Leaf blade apically obtuse or rounded; drupe oblong-ovoid 1. *N. obtusifolia*

2b. Leaf blade apically acuminate; drupe ellipsoid 2. *N. collina*

1b. Leaf blade ± hairy.

3a. Leaf bases usually equal, blade oblong or oblanceolate; petals 6.3–7.4 mm 3. *N. pittosporoides*

3b. Leaf bases unequal, blade usually elliptic; petals shorter than 6 mm.

4a. Leaf blade 10–20 cm, disk hirsute inside and at margin 4. *N. nimmoniana*

4b. Leaf blade 3–13 cm, disk glabrous.

5a. Leaf blade abaxially densely villous or shortly strigose; drupe ellipsoid 5. *N. tomentosa*

5b. Leaf blade abaxially glabrescent, or more sparsely, somewhat rigidly strigose; drupe ovoid 6. *N. obscura*

1. *Nothapodytes obtusifolia* (Merrill) R. A. Howard, J. Arnold Arbor. 23: 70. 1942.

假柴龙树 *jia chai long shu*

Mappia obtusifolia Merrill, Lingnan Sci. J. 14: 28. 1935.

Shrubs or trees, 3–8(–24) m tall. Bark gray; branches terete, glabrous. Leaves alternate or nearly opposite at apices of branches; petiole terete, 1.5–2.5 cm; leaf blade olive green, oblanceolate-oblong, rarely oblong, 9–18 × 3–6.5 cm, thinly leathery, glabrous, lateral veins 6–8 pairs, arcuate ascending, forking abruptly midway to margin, laxly reticulate, prominent, reticulate veins sparse, base cuneate to acute, apex obtuse or rounded. Cymes terminal, 3–6 cm in diam.; peduncle 3–4 cm; axis slightly flattened, moderately strigose. Calyx campanulate, ca. 1.5 mm, outside strigose, margin 5-toothed. Petals white, oblong to lan-

ceolate, 6–7.2 mm, outside densely yellow shortly strigose, inside weakly hirsute, apex inflexed. Stamens 5.5–6.4 mm; filaments 4–5 mm; anthers ovoid-oblong, 2–2.7 mm. Disk thin, ca. 0.3 mm tall, fleshy, outside glabrous, margin crenulate, ciliate, inside hirsute. Ovary ca. 1 mm in diam., hirsute; style ca. 2 mm, slightly hirsute; stigma 2-lobed, oblique. Drupe oblong-ovoid, 0.9–1.3 cm, 6–9 mm in diam., flattened, apex with a short mucro, glabrescent, endocarp thin, nearly smooth. Seeds 7.8–9 mm; cotyledons ovate, 5.2–6 mm wide, strongly 3-veined, base cordate; radicle cylindric, ca. 2.3 mm. Fl. and fr. Dec–Apr.

• Forests; low elevations. S Hainan (Sanya).

2. *Nothapodytes collina* C. Y. Wu, Fl. Yunnan. 1: 169. 1977.

厚叶假柴龙树 *hou ye jia chai long shu*

Trees, sometimes small, 4–12 m tall. Branchlets angular, glabrous or slightly hairy. Petiole 1.5–3 cm, glabrous or adaxially slightly pubescent when young; leaf blade becoming black when dry, elliptic, 10–21 × 4–8 cm, firmly papery, glabrous, midvein conspicuously prominent abaxially, lateral veins 6–9 pairs, abaxially prominent, reticulate veins slender, conspicuous, base broadly cuneate, unequal, apex acuminate; axillary buds densely white hispid. Cymes terminal, ca. 3.5 cm, hispid; flowers not seen. Drupe green when young, black when mature, ellipsoid, ca. 1.5 × 1 cm. Seeds ca. 10 × 7 mm; cotyledons cordate, large, ca. 7 mm, conspicuously 5-veined. Fl. unknown, fr. Nov–Mar.

• Dense forests, sparse woods in valleys; ca. 700 m. S Yunnan (Xishuangbanna).

3. *Nothapodytes pittosporoides* (Oliver) Sleumer, Notizbl. Bot. Gart. Berlin-Dahlem 15: 247. 1940.

马比木 *ma bi mu*

Mappia pittosporoides Oliver, Hooker's Icon. Pl. 18: t. 1762. 1888; *Neoleretia pittosporoides* (Oliver) Baehni.

Shrubs small, rarely trees, 1.5–5(–10) m tall. Bark gray; branches mostly gray-green, terete, rarely angular; younger branches strigose, glabrescent. Petiole 1–3 cm, adaxially broadly sulcate, commonly strigose at least in grooves; leaf blade abaxially light green, black when dry, adaxially dark green, shiny, oblong or oblanceolate, (7–)10–15(–24) × 2–4.5(–6) cm, thinly leathery, golden strigose, abaxially glabrous at maturity, midvein usually yellow, abaxially prominent, commonly hirsute, lateral veins 6–8 pairs, arcuate ascending, reticulate far from margin, abaxially very conspicuously prominent, often hirsute, base cuneate, apex long acuminate. Cymes terminal; peduncle usually flat, hirsute. Calyx green, campanulate, ca. 2 mm, membranous, outside sparsely strigose, margin ciliate, 5-toothed, teeth deltoid. Petals yellow, loriform, 6.3–7.4 × 1–2 mm, outside strigose, inside long villous, apex reflexed, ca. 1 mm. Filaments 4–5 mm, bases slightly thickened; anthers ovoid, ca. 1 mm. Disk persistent in fruit, fleshy, irregularly lobed or deeply crenulate, inside sparsely hirsute. Ovary subglobose, 1.1–1.4 mm in diam. at anthesis, densely hirsute; style green, 1.5–2 mm; stigma capitate. Drupe green when young, becoming yellow, then red when ripe, ellipsoid to oblong-ovoid, slightly flattened, 1–2 cm × 6–8 mm, usually minutely pubescent when mature, apex distinctly umbonate; endocarp thin, rugose; endosperm foetid; cotyledons ovate, ca. 4.5 × 3.5–4 mm; radicle terete, ca. 2 mm. Fl. Apr–Jun, fr. Jun–Aug.

• Forests; 100–1600(–2500) m. Gansu, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Sichuan.

4. *Nothapodytes nimmoniana* (J. Graham) Mabberley in K. S. Manilal, Bot. Hist. Hort. Malab. 88. 1980; *Taxon* 29: 606. 1980.

臭味假柴龙树 *chou wei jia chai long shu*

Premna nimmoniana J. Graham, Cat. Pl. Bombay 155. 1839; *Mappia insularis* (Matsumura) Hatusima; *M. ovata* Miers; *M. ovata* var. *insularis* Matsumura; *Nothapodytes dimorpha* (Craib) Sleumer; *N. foetida* (Wight) Sleumer; *Stemonurus foetidus* Wight.

Trees ca. 15 m tall; branches conspicuously angular. Leaves alternate; petiole (1.5–)3(–5) cm, adaxially sulcate, strigose, especially in grooves; leaf blade black when dry, elliptic-ovate or lanceolate-oblong, 10–20 × 5–12 cm, membranous to thinly leathery, abaxially glabrous or sparsely hispid or pubescent, adaxially sparsely tomentose, lateral veins 7 or 8 pairs, abaxially prominent, base attenuate or rounded, unequal, apex acuminate. Cymes or cymose corymbs terminal; peduncle flattened or angled, tomentose. Calyx campanulate, 2.5–3 mm in diam., strigose or glabrous, 5-toothed. Petals lanceolate-oblong, 4.2–5 × 1.5–1.8 mm, outside appressed strigose, inside villous, apices incurved. Filaments 3–4 mm; anthers ovoid, 1–1.2 mm. Disk slightly lobed, outside glabrous, margin and inside hirsute. Ovary ovoid, 1–1.5 mm in diam., densely hirsute or pubescent; style 1.1–1.4 mm, stout, densely hirsute to glabrous; stigma

2-lobed. Drupe black, oblong-ovoid, 1–2 × 0.8–1 cm, usually minutely pubescent; endocarp thin, woody, endosperm foetid; embryo usually ca. 1/2 as long as seeds; cotyledons ovate, usually displaced laterally, margin superimposed. Fl. and fr. unknown.

Islands; sea level. Taiwan (Taidong) [Cambodia, India, Indonesia (Sumatra), Japan (Ryukyu Islands), Myanmar, Philippines (Luzon), Sri Lanka, Thailand].

5. *Nothapodytes tomentosa* C. Y. Wu, Fl. Yunnan. 1: 169. 1977.

毛假柴龙树 *mao jia chai long shu*

Shrubs 2–3 m tall. Branches angular, sparsely lenticellate; young branches yellow, villous, glabrescent. Leaves alternate; petiole (1–)1.9(–3) cm, pubescent; leaf blade elliptic to oblong-elliptic, rarely obovate-oblong, 3–12(–17) × 2–8 cm, abaxially densely villous, mixed shortly strigose, glabrescent, adaxially sparsely villous when young, only on midvein and lateral veins villous at maturity, lateral veins 4–7 pairs, abaxially prominent, reticulate veins inconspicuous, base obtuse or rounded, oblique, apex acuminate. Cymes terminal or subterminal, 3.5–4.5 cm, with peduncle densely yellow pubescent. Flowers bisexual, yellow; pedicel 1–3 mm, long yellow somewhat rigidly pilose. Calyx cupular, ca. 2 mm, 5-lobed, lobes triangular, outside glabrous or slightly hairy, inside glabrous. Petals loriform, 4–6 × ca. 1 mm, outside somewhat rigidly long pilose, inside except for base and apex villous, apex slightly inflexed. Stamens alternate with petals; filaments filiform, 3–5 mm, flat, fleshy, bases widened; anthers oblong, ca. 1 mm, introrse. Disk shallowly 5-lobed, glabrous. Ovary globose, ca. 1 mm, densely somewhat rigidly long pilose; style 1–2 mm; stigma capitate. Drupe changing from yellow-green to dark purple, ellipsoid, compressed, ca. 2 mm, ca. 1 mm in diam. Fl. Mar–May, fr. May–Nov.

• Scrub on slopes, valleys, roadsides; (1400–)2000–2500 m. C Yunnan.

6. *Nothapodytes obscura* C. Y. Wu, Fl. Yunnan. 1: 170. 1977.

薄叶假柴龙树 *bao ye jia chai long shu*

Shrubs or small trees, 1.8–10 m tall. Branchlets angular, lenticellate, slightly and somewhat rigidly shortly strigose, glabrescent. Leaves alternate; petiole 1–3 cm, somewhat rigidly shortly strigose; leaf blade elliptic, 6–13 × 2.5–6 cm, papery, glabrous or very sparsely shortly and somewhat rigidly strigose, midvein and lateral veins smooth, densely and somewhat rigidly minutely strigose, lateral veins 6 or 7 pairs, reticulate veins inconspicuous, base broadly cuneate, oblique, apex acuminate. Cymes terminal, 3–3.5 cm, somewhat rigidly shortly strigose. Flowers bisexual, light yellow; pedicel 1–2 mm, stout. Calyx ca. 1 mm, 5-lobed, outside somewhat rigidly shortly strigose and ciliate, inside glabrous. Petals loriform, 4–5 × ca. 1 mm, outside densely shortly strigose, inside villous except for base and apex,

Fl. China 11: 509–511. 2008.

apex reflexed at anthesis. Stamens ca. 2.5(–4) mm; filaments filiform, flat; anthers oblong, shorter than 1 mm. Disk ca. 0.5 mm tall, thin, glabrous. Ovary globose, ca. 1 mm, sparsely somewhat rigidly shortly strigose, rarely glabrous; style ca. 1.5 mm; stigma capitate. Drupe black, ovoid, ca. 1.6 × 1.2 mm, apex truncate. Seeds ca. 1 cm, ca. 0.8 mm wide; cotyledons cordate, ca. 0.5 mm; radicle extended straight. Fl. Nov–Dec, fr. Jan–Feb.

- Mixed valley forests; 1200–1800 m. SE Yunnan.

Fl. China 11: 509–511. 2008.