

4. HUODENDRON Rehder, J. Arnold Arbor. 16: 341. 1935.

山茉莉属 shan mo li shu

Trees or shrubs, deciduous. Winter buds naked. Leaves alternate; stipules absent; leaf blade margin entire or serrate. Inflorescences terminal or axillary, paniculate or subcorymbose; bracts and bracteoles small, early deciduous. Flowers small, bisexual. Calyx tube adnate to ovary, 5-toothed. Petals 5, bases slightly coherent, free, imbricate or valvate, revolute after anthesis. Stamens 8–10, exserted; filaments slightly adnate to petals; anthers oblong, connective produced beyond locule into a conspicuous 2- or 3-dentate appendage. Ovary half-inferior, 3- or 4-locular; ovules numerous per locule, erect; placentation axile. Fruit capsular, ovoid, 1/3–2/3 surrounded by calyx, loculicidally dehiscent. Styles 3–5, partly connate; stigma capitellate. Seeds numerous, flattened; seed coat thin, reticulate, fringed on both sides; embryo straight.

Four species: China, Myanmar, Thailand, Vietnam; three species in China.

- 1a. Leaves abaxially densely gray tomentose, adaxially glabrous 3. *H. tomentosum*
- 1b. Leaves glabrous or only veins sparsely pubescent.
 - 2a. Inflorescences and fruit glabrous; styles connate to middle; leaves glabrous, reticulate veins conspicuously raised on both surfaces when dry 1. *H. tibeticum*
 - 2b. Inflorescences and fruit gray stellate tomentose; styles connate almost to apex; leaves pubescent only on veins, reticulate veins raised only on abaxial surface 2. *H. biaristatum*

1. *Huodendron tibeticum* (J. Anthony) Rehder, J. Arnold Arbor. 16: 342. 1935.

西藏山茉莉 xi zang shan mo li

Styrax tibeticus J. Anthony, Notes Roy. Bot. Gard. Edinburgh. 15: 245. 1927.

Trees or shrubs 6–25 m tall. Trunk to 25 cm d.b.h. Branchlets dark brown. Petiole 5–10 mm; leaf blade lanceolate to elliptic-lanceolate, rarely ovate-lanceolate, 6–11 × 2.5–4 cm, papery, base broadly cuneate, margin entire or slightly serrate, apex acuminate to acute; secondary veins 5–9 per side, tertiary veins reticulate, distinct on both surfaces when dry. Inflorescences terminal, subcorymbose, 8–12-flowered, 4–8 cm. Pedicel slender, 3–5 mm. Calyx tube ca. 2 mm; teeth ovate-deltoid. Petals linear-oblong, 6–7 × 1–1.5 mm, apex obtuse. Stamens as long as petals; filaments 4–5 mm, glabrous; anthers ca. 2 mm, connective appendage 3-dentate. Styles 3–5, connate to middle. Fruit ovoid, ca. 3 mm. Seeds brown, ca. 1 mm, reticulately striate. Fl. Mar–May, fr. Aug–Sep.

Dense forests; 1000–3000 m. NE Guangxi, Guizhou, W Hunan, SE Xizang, Yunnan [Vietnam].

2. *Huodendron biaristatum* (W. W. Smith) Rehder, J. Arnold Arbor. 16: 344. 1936.

双齿山茉莉 shuang chi shan mo li

Shrubs or trees to 12 m tall. Trunk to 25 cm d.b.h. Branchlets tomentose or glabrous. Petiole 0.5–1.5 cm; leaf blade elliptic, elliptic-lanceolate, or obovate-oblong, 5–17 × 2.5–6 cm, abaxially glabrous except veins axils with tufted hairs, adaxially yellow-green when dry and glabrous or gray stellate pubescent on veins, base cuneate, margin remotely serrate, apex acute, obtuse, or acuminate; secondary veins 4–9(–11) per side, tertiary veins abaxially distinct, reticulate. Inflorescences terminal or axillary, subcorymbose, 3–10 cm, densely gray-tomentose. Pedicel ca. 1 cm. Calyx ca. 2 mm, pubescent; teeth deltoid. Petals yellowish, narrowly oblong, 6–9 × 2–2.5 mm. Stamens 8–10, as long as petals; filaments and connective pubescent. Style slightly longer than stamens,

apically 3-parted. Fruiting pedicel slightly curved. Fruit ovoid, 4–5 mm, densely gray tomentose. Seeds 1–1.3 mm. Fl. Apr–May, fr. Jun–Oct.

200–600 m. Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Yunnan [Myanmar, Thailand, Vietnam].

- 1a. Leaf blade primary and secondary veins adaxially impressed and abaxially pubescent where they join 2a. var. *biariastrum*
- 1b. Leaf blade primary and secondary veins adaxially raised and abaxially glabrous 2b. var. *parviflorum*

2a. *Huodendron biaristatum* var. *biaristatum*

双齿山茉莉 shuang chi shan mo li (yuan bian zhong)

Styrax biaristatus W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 12: 233. 1920; *Huodendron chunianum* Hu.

Branchlets tomentose. Petiole densely gray stellate pubescent; leaf blade 8–17 × 2.5–6 cm, primary and secondary veins adaxially impressed, abaxially pubescent where they join, secondary veins 5–9(–11) per side. Fl. Apr–May, fr. Jun–Sep.

Forest thickets on slopes and in ravines; 200–500 m. Guangxi, Guizhou, Yunnan [Myanmar, Thailand, Vietnam].

2b. *Huodendron biaristatum* var. *parviflorum* (Merrill) Rehder, J. Arnold Arbor. 16: 346. 1935.

岭南山茉莉 ling nan shan mo li

Styrax parviflorus Merrill, J. Arnold Arbor. 8: 15. 1927.

Branchlets and petioles glabrous. Leaf blade 5–10 × 2.5–4.5 cm, primary and secondary veins adaxially raised and abaxially glabrous, secondary veins 4–6 per side. Fl. Apr–May, fr. Aug–Oct.

* Dense forests in valleys; 300–600 m. Guangdong, Guangxi, Hunan, Jiangxi, Yunnan.

3. *Huodendron tomentosum* Y. C. Tang ex S. M. Hwang, Acta Phytotax. Sin. 18: 164. 1980.

绒毛山茉莉 rong mao shan mo li

Trees to 20 m tall. Trunk to 26 cm d.b.h.; bark gray to brownish. Branchlets densely brownish tomentose. Petiole 1.5–2 cm; leaf blade oblong, oblong-lanceolate, or obovate-oblong, 5–9.5 × 1.5–3.5 cm, abaxially densely gray tomentose, adaxially glabrous, base cuneate, margin entire and slightly revolute, apex acuminate to obtuse; secondary veins 7–9 per side, tertiary veins reticulate. Panicles terminal, 4–8 cm, densely gray tomentose. Flowers ca. 7 mm. Pedicel 5–8 mm. Calyx ca. 2 mm, densely yellow stellate tomentose; teeth 5, ovate-deltoid. Petals yellowish, oblong, ca. 6 × 2 mm, imbricate, apex acute. Filaments basally villose. Style ca. 6 mm, apically 3-parted, villose. Ovary ovoid, 4-locular, villose; ovules numerous.

About 1900 m. N Guangxi, SW Yunnan [Vietnam].

1a. Leaf blade tertiary veins distinct 3a. var. *mentosum*
1b. Leaf blade tertiary veins obscure .. 3b. var. *guangxiensis*

3a. *Huodendron tomentosum* var. *mentosum*

绒毛山茉莉(原变种) rong mao shan mo li (yuan bian zhong)

Leaf blade oblong-lanceolate to obovate-oblong, tertiary veins distinct. Fr. May–Jul.

* Mixed forests; 1900 m. SW Yunnan.

3b. *Huodendron tomentosum* var. *guangxiensis* S. M. Hwang & C. F. Liang in S. M. Hwang, Acta Phytotax. Sin. 18: 165. 1980.

广西山茉莉 guang xi shan mo li

Leaf blade oblong, tertiary veins obscure. Fl. Apr–May.

* Dense forests; ca. 1900 m. N Guangxi.

