

1. XANTHOPHYLLUM Roxburgh, Pl. Coromandel 3: 81. 1820, nom. cons.

黄叶树属 huang ye shu shu

Trees or shrubs. Leaves simple, alternate, without stipules, petiolate; leaf blade usually yellow-green when dry, leathery, veinlets reticulate, margin entire. Flowers bisexual, zygomorphic, shortly pedicellate, in racemes or panicles, axillary or terminal; bracts and bracteoles present. Sepals 5, imbricate, inner 2 slightly larger. Petals 5, differing slightly in size, imbricate, sometimes unguiculate, free, keel without apical appendages. Stamens 8; filaments free or 2–4 adherent at base of ovary, other 4–6 adherent at base of petals, ± slightly inflated, pubescent; anthers introrse, usually piliferous at base. Disk annular, fleshy, shorter than ovary. Ovary superior; carpels 2, connate, stalked, 1-loculed, glabrous or piliferous, placentation parietal; ovules 2 to numerous, anatropous; style 1, hairy; stigma capitate, shallowly lobed. Fruit a drupe, globose, fibrous-fleshy when dry, 1-loculed. Seed usually 1; seed coat membranous; caruncle absent; endosperm absent.

About 93 species: mostly in Australia, India, Indonesia, and Malaysia; four species (two endemic) in China.

- 1a. Shrubs or small trees; leaf blade thickly papery, elliptic, apex caudate-acuminate, acumen to 3 cm 1. *X. oliganthum*
- 1b. Trees; leaf blade leathery, lanceolate or obovate-elliptic, apex not caudate-acuminate.
 - 2a. Axillary buds 2, overlapping; leaf blade linear-lanceolate; raceme axillary, shorter than 4 cm 2. *X. yunnanense*

- 2b. Axillary bud 1; leaf blade ovate-elliptic to lanceolate, not linear-lanceolate; raceme or panicle terminal or axillary, longer than 4 cm.
- 3a. Inflorescences much branched, to 15 cm; flowers usually subopposite or pseudowhorled; leaf blade lanceolate to oblong-lanceolate, 10–24 × 2.5–6.5 cm 3. *X. flavescens*
- 3b. Inflorescences paniculate or racemose, 3–9 cm; flowers not subopposite or pseudowhorled; leaf blade ovate-elliptic to oblong-lanceolate, 4–12 × 1.5–5 cm 4. *X. hainanense*

1. *Xanthophyllum oliganthum* C. Y. Wu, Acta Bot. Yunnan. 2: 75. 1980.

少花黄叶树 shao hua huang ye shu

Shrubs to small trees, 2–4 m tall. Young branches slender, glabrous. Petiole yellow-brown, ca. 5 mm; leaf blade greenish, elliptic, 11–14 × 2.5–5 cm, thickly papery, both surfaces glabrous, midvein raised on both surfaces, lateral veins 6 or 7 pairs, raised abaxially, anastomosing near margin, tertiary veins parallel, veinlets reticulate, base cuneate, margin slightly undulate when dry, apex caudate-acuminate, acumen to 3 cm. Racemes or panicles terminal or axillary, ca. 4 cm, few flowered; pedicels 4–7 mm, slender, densely white pubescent. Sepals pubescent outside; outer 3 oblong, ca. 5 × 5 mm, ciliate; inner 2 suborbicular, ca. 5 mm wide. Petals yellow-white, nearly equal, 1–1.2 cm, keel white pubescent at base outside. Stamens 8, 5 adherent at base of petals, other 3 free; filaments inflated in lower part, pubescent; anthers ovoid-sagittate, ca. 1 mm, slightly furcate at base. Disk discoid. Ovary ovoid, with stalk, 1.5–2 mm in diam., glabrous; style ca. 9 mm, densely yellow-white pubescent; stigma slightly lobed. Drupe 2–3 cm in diam. Seed deep blue-green, compressed globose, ca. 1.6 cm in diam.; endosperm absent; cotyledon plump. Fl. and fr. Apr.

• Dense forests, mixed forests of bamboos and trees in valleys; 200–300 m. SE Yunnan.

2. *Xanthophyllum yunnanense* C. Y. Wu, Acta Bot. Yunnan. 2: 77. 1980.

云南黄叶树 yun nan huang ye shu

Trees 10–15 m tall; trunk to 15–35 cm d.b.h. Branchlets yellow or straw-colored, slender, scabrous, glabrous; axillary buds 2, overlapping. Petiole yellow-brown, 6–10 mm, adaxially sulcate; leaf blade linear-lanceolate, 8–15 × 1.8–3.5 cm, leathery, both surfaces glabrous, midvein yellow, raised on both surfaces, lateral veins 7 or 8 pairs, raised abaxially, curved, anastomosing near margin, tertiary veins not parallel, veinlets reticulate, base cuneate, margin slightly undulate when dry, apex acuminate. Racemes axillary, densely yellow pubescent. Flowers not seen. Infructescences 2.5–3.4 cm, densely yellow-brown tomentose; fruit stalk short, ca. 5 mm, stout, yellowish brown tomentose. Drupe green, ca. 2 cm in diam., glabrous. Seed black, rounded; cotyledon plump. Fl. unknown, fr. Jul–Sep.

• Mixed forests; 1800–2000 m. S Yunnan (Menghai).

3. *Xanthophyllum flavescens* Roxburgh, Pl. Coromandel 3: 82. 1820.

泰国黄叶树 tai guo huang ye shu

Xanthophyllum siamense Craib.

Trees 5–25(–32) m tall; trunk 15–35 cm d.b.h.; bark gray,

cork thick. Branchlets slender, yellow tomentose, angular. Petiole deep yellow-brown, ca. 1 cm, adaxially sulcate; leaf blade greenish, shiny, lanceolate or oblong-lanceolate, 10–24 × 2.5–6.5 cm, leathery, both surfaces glabrous, midvein raised abaxially, evident adaxially, lateral veins 6–8 pairs, raised abaxially, distinct adaxially, anastomosing near margin, veinlets reticulate, base cuneate, margin sometimes undulate, apex acuminate (tip to 1.5 cm). Racemes or panicles terminal or axillary, usually much branched, to 15 cm; terminal branchlets equaling lateral ones, densely yellow tomentose; peduncles usually compressed, ca. 9 mm; pedicels ca. 6 mm; bracteoles triangular-subulate, ca. 1 mm, densely yellow tomentose. Flowers usually subopposite and pseudowhorled. Sepals: outer 2 ovate or elliptic-ovate, ca. 2.5 × 1.8–2.3 mm, both surfaces tomentose, apex acuminate; inner 3 obovate-elliptic or elliptic, ca. 3.5 × 2.3 mm, both surfaces pubescent, ciliate. Petals white, 6–7 mm, keel abaxially pilose. Stamens 8, 5–7 mm; filaments shortly adherent at base of petals, inflated, villous; anthers sagittate-ovoid, ca. 0.8 mm, slightly furcate at base. Disk annular, 1.5–2 mm in diam. Ovary subglobose, ca. 1.5 mm in diam., with stalk ca. 1 mm, plump, smooth; style ca. 6 mm, villous; stigma slightly lobed. Drupe green when young, ca. 1.8 cm in diam., glabrous; fruit stalk 0.5–1 mm. Seed not seen. Fl. Mar–Apr, fr. May–Jul.

Damp dense forests; 500–2000 m. S Yunnan [Cambodia, Laos, Myanmar, Thailand].

4. *Xanthophyllum hainanense* Hu, J. Arnold Arbor. 6: 142. 1925.

黄叶树 huang ye shu

Trees 5–20 m tall; bark gray, longitudinally thinly fissured. Branchlets terete, slender, glabrous. Petiole 6–10 mm, transversely rugose, sulcate adaxially; leaf blade yellow-green when dry, ovate-elliptic to oblong-lanceolate, 4–12 × 1.5–5 cm, leathery, both surfaces glabrous, midvein and lateral veins raised on both surfaces, lateral veins 9–11 pairs, anastomosing near margin, veinlets reticulate, raised abaxially, distinct adaxially, base cuneate or obtuse, margin sometimes undulate, apex long acuminate. Racemes or small panicles axillary or terminal, 3–9 cm; peduncles and pedicels densely pubescent; bracteole 1, caducous, lanceolate. Flowers fragrant, small. Sepals with both surfaces pubescent, ciliate; outer 3 ovate, small, ca. 2 mm, apex acute; inner 2 elliptic to oblong, large, ca. 4 mm, apex rounded. Petals yellow-white, elliptic or oblong-lanceolate, ca. 7 mm, apex obtuse, thinly ciliate. Stamens 8, free, 4(–8) mm, lower parts villous; anthers basifixed, ellipsoidal, ca. 0.5 mm. Ovary pitcher-shaped, ca. 1 mm in diam., densely pubescent; ovules 4; style 3–6 mm, slightly pubescent at base; stigma capitate. Drupe yellowish, 1.5–2 cm in diam., pubescent or subglabrous; fruit stalk terete, ca. 5 mm, stout, pubescent. Seed yellowish, subglobose, ca. 8

mm in diam. Fl. Mar–May, fr. Apr–Jul.

Mountain forests; 100–600 m. Guangdong, Guangxi, Hainan
[Vietnam].

