

## 81. SAPROSMA Blume, Bijdr. 956. 1826–1827.

染木树属 ran mu shu shu

Chen Tao (陈涛); Charlotte M. Taylor

Erect shrubs, unarmed, usually fetid when bruised. Raphides present. Leaves opposite or in whorls of 3 or 4, sometimes with domatia; stipules caducous or persistent, interpetiolar, triangular, entire or 1–3-setose or multifid. Inflorescences axillary or terminal, fasciculate or cymose and several flowered or reduced to 1 flower, pedunculate to sessile, bracteate with bracts usually fused in pairs. Flowers sessile or pedicellate, bisexual, apparently monomorphic. Calyx limb 4–6-lobed, sometimes funnellform, lobes sometimes unequal. Corolla white, campanulate, tubular, or funnellform, inside villous in throat; lobes 4(–6), valvate-induplicate in bud, with margins sometimes crisped. Stamens 4(–6), inserted in corolla throat, usually partially exerted; filaments short or reduced; anthers dorsifixed near base. Ovary 2-celled, ovules 1 in each cell, basal, erect; style 2-lobed, included or exerted. Fruit blue or purplish black, drupaceous, fleshy, ellipsoid, with calyx limb persistent; pyrenes 1 or 2, 1-celled, with 1 seed, crustaceous to papery; seeds medium-sized, plano-convex, subobovoid, or ellipsoid, abaxially (i.e., dorsally) smooth to verrucose, endosperm fleshy; cotyledon tiny, leaflike; radicle slender, close to hilum.

About 30 species: tropical Asia; five species (four endemic) in China.

*Saprosma* is not well known. Analyses of relationships among *Lasianthus* and related genera support the transfer of *S. crassipes* into that genus, although the authors did not publish a formal nomenclatural transfer (Xiao & Zhu, Bot. Stud. (Taipei) 48: 227–232. 2007).

- 1a. Flowers sessile in sessile glomerules or heads.  
2a. Flowers mostly in terminal heads, sometimes also borne in uppermost leaf axils; petioles 1–3 mm ..... 2. *S. hainanensis*  
2b. Flowers in glomerules borne along much of length of stem, sometimes also in a terminal head; petioles 10–12 mm ..... 4. *S. merrillii*
- 1b. Flowers sessile to pedicellate in pedunculate and/or branched inflorescences.  
3a. Flowers on pedicels 2–10 mm, in branched cymes borne on peduncles 10–40 mm; leaves opposite or more often ternate; pyrenes smooth abaxially ..... 5. *S. ternata*  
3b. Flowers sessile in heads, borne on peduncles 5–20 mm; leaves opposite; pyrenes verrucose abaxially.  
4a. Peduncles 5–8 mm; secondary leaf veins 7–10 pairs; corolla tube 7–8 mm ..... 1. *S. crassipes*  
4b. Peduncles 10–20 mm; secondary leaf veins 4–6 pairs; corolla tube ca. 10 mm ..... 3. *S. henryi*

### 1. *Saprosma crassipes* H. S. Lo, Bot. J. S. China 2: 15. 1993.

厚梗染木树 hou geng ran mu shu

Shrubs 1–2 m tall or occasionally small trees to 5 m tall; branches weakly flattened to subterete, glabrous. Leaves opposite; petiole 3–10 mm, glabrous to sparsely strigillose; blade drying thinly leathery, dark to pale green, elliptic-ovate or oblong-ovate, 8–16 × ca. 6 cm, both surfaces glabrous, base obtuse or rounded, apex abruptly acuminate; secondary veins 7–10 pairs, joining in a submarginal vein, without domatia; stipules caducous, triangular, ca. 1.5 mm, strigillose to glabrous, acute. Inflorescences axillary and sometimes also terminal, capitate, several flowered, strigillose to glabrous; peduncle compressed, 5–8 mm; bracts ovate, 1–2 mm; pedicels to 2 mm. Flowers subsessile to pedicellate. Calyx with hypanthium portion cupuliform, ca. 1 mm, glabrous; limb 0.8–1 mm, shallowly lobed, strigillose to glabrous; lobes broadly triangular, ciliate. Corolla tubular-funnelform, glabrous outside, villous inside; tube 7–8 mm; lobes broadly ovate, ca. 2 mm. Drupes ellipsoid, 7–8 mm; pyrenes hemispherical, verrucose abaxially. Fl. May, fr. May–Oct.

• Forest margins; 300–1300 m. Hainan, Yunnan (Xishuangbanna) [?Vietnam].

A recent analysis of molecular data suggested that this species may be better placed in *Lasianthus*, though the authors did not make a formal nomenclatural transfer (Xiao & Zhu, Bot. Stud. (Taipei) 48: 227–232. 2007).

### 2. *Saprosma hainanensis* Merrill, Lingnan Sci. J. 9: 44. 1930 [“*hainanense*”].

海南染木树 hai nan ran mu shu

Erect shrubs, 1–2 m tall; branches weakly flattened to terete, glabrous, with epidermis often becoming hardened then fragmenting. Leaves opposite or sometimes appearing whorled due to congested nodes with internodes not expanded, sometimes in unequal pairs; petiole 1–3 mm, glabrous; blade drying membranous to papery, oblong-ovate to oblong-elliptic, 3.5–15 × 1.5–5.5 cm, adaxially glabrous, abaxially glabrous or hirtellous on principal veins, base rounded to cuneate, apex acute or shortly acuminate; secondary veins 7–12 pairs, usually joining in a submarginal vein, usually with pilosulous or foveolate domatia; stipules caducous, ovate, 2–3 mm, glabrous, aristate with bristle 1–3 mm. Inflorescences terminal and in uppermost leaf axils, glomerulate or capitate, few flowered, glabrous; bracts ovate, usually fused in pairs, 1–2 mm. Flowers sessile. Calyx glabrous; hypanthium portion obconic, 1–2 mm; limb 1–2 mm, lobed for ca. 1/2; lobes 4(–6), triangular. Corolla tubular, glabrous or puberulent outside; tube ca. 3 mm, in throat villous; lobes 4, elliptic to elliptic-ovate, ca. 2.5 mm. Drupes obovoid, 6–7 × 3–4 mm; pyrenes plano-convex, smooth abaxially. Fl. Jun, fr. Oct–Nov.

• Ravines; 300–1700 m. Hainan.

H. S. Lo (in FRPS 71(2): 67. 1999) described the calyx lobes as 5 or 6, but they are consistently 4 on the specimens studied.

**3. *Saprosma henryi*** Hutchinson in Sargent, Pl. Wilson. 3: 417. 1916.

云南染木树 yun nan ran mu shu

Shrubs, ca. 3 m tall; branches glabrous. Leaves opposite; petiole 3–7 mm, glabrous; blade drying thinly papery, elliptic or oblong-elliptic, 6–9 × 3–5 cm, both surfaces glabrous, base obtuse, apex shortly acuminate; secondary veins 4–6 pairs, joining in a submarginal vein; stipules triangular, 1.5–2 mm. Inflorescence capitate, few flowered; peduncle 10–20 mm, longitudinally ridged. Flowers sessile. Calyx with hypanthium portion glabrous; lobes triangular, ca. 1.25 mm, subglabrous. Corolla tubular-funnelform, glabrous outside; tube ca. 10 mm, pilose inside; lobes ovate-triangular, ca. 2 mm, obtuse. Drupes obovate, ca. 8 mm; pyrenes verrucose abaxially.

- Mountain forests; 1300–1700 m. Yunnan.

**4. *Saprosma merrillii*** H. S. Lo, Bot. J. S. China 2: 15. 1993.

琼岛染木树 qiong dao ran mu shu

*Lasianthus hainanensis* Merrill, Philipp. J. Sci. 21: 355. 1922, not *Saprosma hainanensis* Merrill (1930).

Shrubs, 2–3 m tall; branchlets terete, strigose or hirtellous to glabrous. Leaves opposite; petiole 10–12 mm, hirtellous or strigillose; blade drying stiffly papery, elliptic-oblong to lanceolate, 10–17 × 3.5–6 cm, adaxially glabrous, abaxially glabrous or usually hirtellous along midrib, base cuneate to truncate, apex acuminate; secondary veins 14 or 15 pairs, joining in a submarginal vein, without domatia; stipules persistent, narrowly triangular, 2–3 mm, strigillose or hirtellous to glabrescent, acute. Inflorescences axillary along stem and sometimes also terminal, glomerulate or capitate, sessile, several flowered, strigillose or hirtellous; bracts apparently reduced. Flowers sessile. Calyx with hypanthium portion obconic, ca. 1 mm, pilosulous to glabrous; limb ca. 1 mm, deeply lobed; lobes triangular. Corolla tubular-funnelform, glabrous outside, villous in throat and on lobes inside; tube 4–4.5 mm; lobes ovate, ca. 1.5 mm. Drupes obovate to oblong-obovate, 7–8(–12) mm; pyrenes plano-convex, smooth abaxially. Fl. Apr.

- Sparse forests or forest margins; 300–1000 m. Hainan.

**5. *Saprosma ternata*** (Wallich) J. D. Hooker, Fl. Brit. India 3: 193. 1881 [*ternatum*].

染木树 ran mu shu

*Paederia ternata* Wallich in Roxburgh, Fl. Ind. 2: 520. 1824; *Serissa ternata* (Wallich) Kurz.

Erect shrubs 1–4 m tall, or sometimes small trees 5–6 m tall; branches angled, glabrous. Leaves in whorls of 3 or sometimes opposite; petiole 6–12 mm, glabrous; blade drying thinly leathery to papery, elliptic, oblong-lanceolate, or oblong-elliptic, 8–15 × 3–6.5 cm, both surfaces glabrous, base acute to obtuse, apex shortly acuminate; secondary veins 7–10 pairs, not joining in a submarginal vein, without domatia; stipules caducous, narrowly triangular to lanceolate, 5–12 mm, with 2–7 linear teeth or projections. Inflorescences axillary, cymose, glabrous; peduncles 1–3 per axil, 10–40 mm; bracts triangular to ovate, 1–5 mm, often aristate, usually deciduous after flow-

ering; pedicels 2–10 mm. Flowers pedicellate. Calyx glabrous; hypanthium portion cupuliform, 2–2.5 mm, glabrous; limb 1–2 mm, shallowly and sometimes irregularly lobed; lobes triangular. Corolla tubular, puberulent to tomentulose outside; tube 3–8 mm, pilose in throat; lobes triangular usually with expanded crisped margins, 3–4 mm. Drupes ellipsoid or subglobose, 8–12 × 6–8 mm; pyrenes plano-convex, smooth abaxially. Fl. Apr, Jun, fr. Sep–Nov.

Sparse forests at low to middle elevations, forests in ravines; 400–1000 m. Hainan, Yunnan [NE India, Malaysia].

Fl. China 19: 320–322. 2011.