

12. RHUS Linnaeus, Sp. Pl. 1: 265. 1753.

盐麸木属 *yan fu mu shu*

Deciduous shrubs or trees, polygamous or dioecious. Leaves imparipinnately compound; leaf rachis sometimes winged; leaflets petiolate or sessile, with serrate or entire margin. Inflorescence terminal, paniculate or thyrsoid, floral subtending bracts persistent or deciduous. Flowers functionally unisexual or bisexual, 5-merous. Ovary 1-locular and 1-ovulate; styles 3, often united basally. Drupe globose, slightly compressed, mixed glandular pubescent and pilose, red at maturity; exocarp and mesocarp united; mesocarp glutinous, red.

About 250 species: subtropical and warm temperate regions of the world; six species (four endemic) in China.

Species in this genus are the hosts of gall-producing insects such as aphids. The galls of *Rhus chinensis* (角倍 “jiao bei”) are particularly sought after for medicinal purposes. Other species in the genus also deliver galls (肚倍 “du bei”), but these are considered to be of an inferior quality.

- 1a. Leaflet margin dentate; male inflorescences more than 25 cm 1. *R. chinensis*
- 1b. Leaflet margin entire or serrulate; inflorescences less than 20 cm.
 - 2a. Rachis broadly winged.
 - 3a. Leaflets ovate or oblong, with rounded apex, adaxially strigose, abaxially mixed hispid and minutely papillate 2. *R. wilsonii*
 - 3b. Leaflets lanceolate, with acute or retuse apex, adaxially sparsely glandular-papillate and minutely pubescent along midrib, abaxially glaucous, glandular-papillate along midrib 3. *R. teniana*
 - 2b. Rachis not winged or narrowly so distally.
 - 4a. Leaflets 9–17, abaxially white tomentose 4. *R. hypoleuca*
 - 4b. Leaflets 7–13, abaxially usually minutely pubescent along midrib.
 - 5a. Branchlets ± pubescent; leaflets sessile, ovate to oblong, base rounded or subcordate, apex usually long acuminate 5. *R. punjabensis*
 - 5b. Branchlets glabrous; leaflets petiolulate, oblong to lanceolate, base broadly cuneate to rounded, apex acuminate 6. *R. potaninii*

1. *Rhus chinensis* Miller, Gard. Dict., ed. 8, *Rhus* no. 7. 1768.

盐麸木 *yan fu mu*

Shrubs to trees, 2–10 m tall; branchlets ferruginous pubescent, lenticellate. Leaf blade sessile, imparipinnately compound; rachis broadly winged to wingless, ferruginous pubescent; leaflets (5–)7–13; leaflet blade ovate to oblong, increasing in size toward apex, 6–12 × 3–7 cm, adaxially dark green, sparsely pubescent or glabrescent, abaxially lighter green, glaucous, and ferruginous pubescent, base rounded to cuneate in terminal leaflet, margin dentate, often crenate, apex acute, lateral veins and reticulate venation impressed adaxially and prominent abaxially. Inflorescence many branched, densely ferruginous pubescent, male ones 30–40 cm, female ones shorter. Pedicel ca. 1 mm, minutely pubescent; flowers white. Male flowers: calyx minutely pubescent, lobes long ovate, ca. 1 mm, with ciliate margins; petals obovate-oblong, ca. 2 mm; stamen filaments ca. 2 mm, anthers ovoid, ca. 0.7 mm; disk annular; ovary reduced to absent. Female flowers: calyx lobes ca. 0.6 mm; petals elliptic-ovate, ca. 1.6 mm; staminodes much reduced; disk annular; ovary ovoid, ca. 1 mm, densely white pubescent, styles 3, stigma capitate. Drupe globose, slightly compressed, 4–5 mm in diam., mixed pilose and glandular-pubescent, red at maturity. Fl. Aug–Sep, fr. Oct.

Lowland, hill, and mountain forests, forests along streams, thickets; 100–2800 m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [Bhutan, Cambodia, India, Indonesia, Japan,

Korea, Laos, Malaysia, Singapore, Thailand, Vietnam].

- 1a. Rachis winged 1a. var. *chinensis*
- 1b. Rachis not winged 1b. var. *roxburghii*

1a. *Rhus chinensis* var. *chinensis*

盐麸木(原变种) *yan fu mu* (yuan bian zhong)

Rhus osbeckii Decaisne ex Steudel; *R. semialata* Murray; *R. semialata* var. *osbeckii* Candolle; *Schinus indicus* N. L. Burman.

Leaf rachis winged. Fl. Jun–Aug, fr. Sep–Nov.

Hill and mountain forests on southern slopes, forests along streams, thickets; 100–2700 m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [Bhutan, Cambodia, India, Indonesia, Japan, Korea, Laos, Malaysia, Singapore, Thailand, Vietnam].

The name *Rhus javanica* Linnaeus has been misapplied to this taxon.

1b. *Rhus chinensis* var. *roxburghii* (Candolle) Rehder, J. Arnold Arbor. 20: 416. 1939.

滨盐麸木 *bin yan fu mu*

Rhus semialata var. *roxburghii* Candolle, Prodr. 2: 67. 1825; *R. javanica* Linnaeus var. *roxburghii* (Candolle) Rehder & E. H. Wilson; *R. roxburghii* Decaisne ex Steudel.

Leaf rachis not winged. Fl. Aug–Sep, fr. Oct–Dec.

• Lowland, hill, and mountain forests, thickets; 200–2800 m. Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan.

2. *Rhus wilsonii* Hemsley, Bull. Misc. Inform. Kew 1906: 155. 1906.

川蕪杨 chuan fu yang

Shrubs, 1–4 m tall; branchlets at first grayish yellow pubescent, reddish brown. Petiole 1–2 cm, pubescent; leaf blade imparipinnately compound, 10–20 cm; rachis winged, 2–4 mm wide, pubescent; leaflets sessile, 11–19(–27); leaflet blade ovate or oblong, 2–6 × 0.8–2 cm, adaxially strigose, abaxially glaucous, mixed pilose and papillose, base oblique, cuneate to subrounded, margin entire or rarely sparsely serrate, apex rounded, mucronate, rarely acute or retuse, midrib and lateral veins impressed adaxially, midrib prominent abaxially. Inflorescence 3–10 cm; peduncle and rachis white pubescent; floral subtending bracts lanceolate, 1–3 mm. Pedicel 1–3 mm, pubescent; flowers light yellow. Calyx glabrous or sparsely glandular-pubescent, lobes triangular-ovate, ca. 1 mm, with ciliate margins, apex rounded. Petals ovate-oblong, ca. 2 mm, apex rounded, venation featherlike, brown, white hairy adaxially. Stamines of female flowers ca. 1 mm, with ovoid anthers; disk 5-lobed; ovary tomentose; styles 3, glabrous. Drupe globose, ca. 4 mm in diam., mixed pubescent and glandular-pubescent, red at maturity. Fl. Apr–Jun, fr. Sep–Oct.

• Hill and mountain thickets on limestone; 300–1300(–2300) m. SW Sichuan, NE Yunnan.

3. *Rhus teniana* Handel-Mazzetti, Symb. Sin. 7: 637. 1933.

滇蕪杨 dian fu yang

Shrubs, 1–3 m tall; branchlets minutely grayish white pubescent to almost glabrous, sparsely lenticellate. Leaf blade imparipinnately compound, 11–19 cm; rachis winged, 4–6 mm wide; leaflets sessile, ca. 15, alternate or subopposite; leaflet blade lanceolate, 2.5–6 × 0.8–1.6 cm, adaxially sparsely papillose and minutely pubescent along midrib, abaxially glaucous, yellowish brown punctulate to sparsely papillate and strigose along midrib, base oblique, broadly cuneate or subrounded, margin entire, apex acute or retuse, lateral veins 11–14 pairs. Inflorescence ca. 3 cm; rachis and branches minutely pubescent; floral subtending bracts lanceolate. Pedicels 1–2 mm; flowers yellowish white, tomentose. Calyx sparsely pubescent at base, lobes triangular-ovate, ca. 1 mm, with ciliate margins. Petals ovate-oblong, ca. 2 mm, apex rounded, strigose along midrib abaxially. Stamines of female flowers ca. 1 mm; disk 5-lobed; ovary white tomentose; styles 3. Drupe not seen. Fl. Apr–Jun, fr. Aug–Oct.

• Hill thickets; ca. 1900 m. N Yunnan (Dayao).

4. *Rhus hypoleuca* Champion ex Benth, Hooker's J. Bot. Kew Gard. Misc. 4: 43. 1852.

白背蕪杨 bai bei fu yang

Shrubs or small trees; branchlets minutely grayish pubescent to glabrous, sparsely lenticellate. Petiole and rachis grayish tomentose, wingless; leaf blade imparipinnately compound, 20–

30 cm; leaflets sessile, 9–17, opposite; leaflet blade ovate-lanceolate or lanceolate, 5–9.5 × 2–3.5 cm, adaxially gray tomentose along midrib, abaxially densely white tomentose, base oblique, margin entire to sparsely serrate, slightly revolute, apex acuminate, lateral veins ca. 11 pairs, midrib and lateral veins slightly impressed adaxially and prominent abaxially. Inflorescence to 20 cm, grayish yellow tomentose. Pedicel 1–2 mm, grayish yellow tomentose; flowers white. Calyx lobes ca. 0.5 mm, minutely pubescent, margins ciliate. Petals obovate-oblong, ca. 2 mm, margins ciliate, abaxially with white hairs along midrib. Male flowers with filament equal in length to anther. Disk annular. Female flowers with globose ovary, densely covered with white hairs. Drupe ca. 4 mm in diam., mixed pilose and red glandular-pubescent. Fl. Aug, fr. Sep–Oct.

• Hill forests; 800–1500 m. Fujian, Guangdong, S Hunan, Taiwan.

5. *Rhus punjabensis* J. L. Stewart ex Brandis, Forest Fl. N. W. India 120. 1874.

旁遮普蕪杨 pang zhe pu fu yang

Trees or small trees, 5–15 m tall; branchlets pubescent to minutely pubescent. Leaf blade imparipinnately compound; rachis narrowly winged or wingless distally; leaflets sessile or subsessile, 7–13; leaflet blade oblong-ovate or oblong, 5–12 × 2–4.5 cm, both sides glabrous to minutely pubescent along midrib or lower side pubescent, base rounded or subcordate, margin entire, apex acuminate or long acuminate, lateral veins ca. 20 pairs, prominent abaxially. Inflorescence 15–20 cm, densely minutely pubescent; floral subtending bracts 1–2 mm, subulate, minutely pubescent. Pedicel ca. 1 mm; flowers white. Calyx minutely pubescent, lobes narrowly triangular, ca. 1 mm, margins ciliate. Petals oblong, ca. 2 × 1 mm, minutely pubescent on both sides, margins ciliate, revolute at anthesis. Stamen filaments ca. 2 mm in male flowers, minutely pubescent proximally; anthers ovate; staminode filaments ca. 1 mm in female flowers. Disk purplish red. Ovary globose, ca. 1 mm in diam., white pubescent; male flower with sterile ovary. Drupe subglobose, ca. 4 mm in diam., purplish red at maturity, mixed pilose and glandular-pubescent.

Hill and mountain forests; 400–3500 m. Gansu, Guizhou, W Hubei, W Hunan, S Shaanxi, Sichuan, S and SE Xizang, N Yunnan [N India, Kashmir].

Rhus punjabensis var. *punjabensis* is distributed in NW India.

- 1a. Branchlets, leaf rachis, leaf petiole, and lower side of leaflet midrib minutely pubescent 5a. var. *sinica*
- 1b. Branchlets, leaf rachis, leaf petiole, and lower side of leaflet midrib densely pubescent 5b. var. *pilosa*

5a. *Rhus punjabensis* var. *sinica* (Diels) Rehder & E. H. Wilson in Sargent, Pl. Wilson. 2: 176. 1914.

红蕪杨 hong fu yang

Rhus sinica Diels, Bot. Jahrb. Syst. 29: 432. 1900; *R. echinocarpa* H. Léveillé, p.p. as to *Cavalerie* 2003; *R. esquirolii* H. Léveillé; *R. mairei* H. Léveillé.

Fl. China 11: 345–348. 2008.

Branchlets, leaf rachis, leaf petiole, and lower side of leaflet midrib minutely pubescent; rachis narrowly winged distally. Fl. Jun–Jul, fr. Jul–Sep.

• Hill and mountain forests; 400–3000 m. S Gansu, Guizhou, W Hubei, W Hunan, S Shaanxi, Sichuan, SE Xizang, Yunnan.

5b. *Rhus punjabensis* var. *pilosa* Engler, Monogr. Phan. 4: 378. 1883.

毛毡杨 mao fu yang

Branchlets, leaf rachis, leaf petiole, and lower side of leaflet midrib densely pubescent; rachis narrowly winged distally. Fl. Jun–Jul, fr. Jul–Sep.

Hill and mountain forests; 2000–3500 m. W Sichuan, S and SE Xizang, NW Yunnan [N India, Kashmir].

6. *Rhus potaninii* Maximowicz, Trudy Imp. S.-Peterburgsk. Bot. Sada 11: 110. 1889 [*“potanini”*].

青毡杨 qing fu yang

Deciduous trees, 5–8 m tall; branchlets glabrous. Petiole minutely pubescent; leaf blade imparipinnately compound; rachis wingless; leaflets 7–11; leaflet petiolule short; leaflet blade oblong or oblong-lanceolate, 5–10 × 2–4 cm, both sides minutely pubescent or subglabrous, base oblique, subrounded, margin entire, apex acuminate. Inflorescence 10–20 cm, minutely pubescent. Calyx minutely pubescent, lobes ovate, ca. 1 mm, margins ciliate. Petals ovate or ovate-oblong, 1.5–2 × ca. 1 mm, minutely pubescent, margins ciliate, revolute at anthesis. Stamen filaments ca. 2 mm in male flowers; anthers ovate; staminode filaments short in female flowers. Disk conspicuous. Ovary globose, ca. 0.7 mm in diam., densely white tomentose. Drupe subglobose, 3–4 mm in diam., densely mixed pilose and glandular-pubescent, red at maturity. Fl. May–Jul, fr. Jul–Oct.

• Hill and mountain forests, thickets; 900–2500 m. S Gansu, Henan, S Shaanxi, S Shanxi, Sichuan, NW Yunnan.

Fl. China 11: 345–348. 2008.