

10. COTINUS Miller, Gard. Dict. Abr., ed. 4. 1754.

黄栌属 huang lu shu

Polygamous shrubs or small trees, with yellow wood and pungent-smelling resinous exudates. Leaves alternate, borne on slender petioles, simple, entire to slightly serrate. Inflorescence cymose or paniculate, terminal. Pedicel slender, 4–6 × longer than flower, further elongating and turning villous after anthesis in sterile flowers. Calyx 5-parted, lobes ovate-lanceolate, obtuse, persistent. Petals 5, 2 × as long as calyx. Stamens 5, shorter than petals; anthers ovate, shorter than filaments. Ovary obliquely compressed, 1-locular and 1-ovulate; styles 3. Drupe small, dark red to brown, reniform, compressed, glabrous or pubescent. Seed reniform, exalbuminous; seed coat thin; cotyledon complanate.

Five species: Asia, Europe, North America; three species (two endemic) in China.

- 1a. Mature plant less than 1 m tall; leaf blade 1–2 cm in diam.; fruit minutely pubescent ..... 1. *C. nana*
- 1b. Mature plant more than 2 m tall; leaf blade more than 2 cm in diam.; fruit glabrous.
  - 2a. Leaf blade broadly elliptic, obovate, or ovate, glabrous or pubescent ..... 2. *C. coggygia*
  - 2b. Leaf blade broadly ovate to suborbicular, abaxially with tufts of hair in vein axils ..... 3. *C. szechuanensis*

1. *Cotinus nana* W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 9: 101. 1916.

矮黄栌 ai huang lu

Shrubs 0.5–1.5 m tall. Petiole slender, 3–6 mm; leaf blade orbicular or ovate, 1–2 cm in diam., leathery, glabrous, glaucous, base rounded or broadly cuneate, margin entire, apex rounded, lateral veins and reticulate venation prominent abaxially. Inflorescence paniculate, terminal, much branched, glabrous. Pedicel slender, 6–8 mm, partly pilose; flowers ca. 3 mm in diam. Calyx purplish red, lobes ovate-triangular, ca. 1 mm, acute to obtuse apically, minutely pubescent with ciliate margins. Petals oblong or oblong-elliptic, 2–2.5 mm, glabrous with purplish red venation pattern. Stamens ca. 1.5 mm; filaments linear, ca. 0.9 mm; anthers ovate-oblong. Disk annular. Ovary oblique, subglobose, ca. 0.7 mm in diam., minutely pubescent; styles 3; stigma subcapitate. Drupe subreniform, 3–4 × 2.5–3 mm, compressed, minutely pubescent. Fl. Jul–Aug, fr. Sep–Oct.

• Hill and mountain thickets on rocky soils; 1500–2500 m. NW Yunnan.

2. *Cotinus coggygia* Scopoli, Fl. Carniol., ed. 2, 1: 220. 1772.

黄栌 huang lu

*Rhus cotinus* Linnaeus, Sp. Pl. 1: 267. 1753.

Shrubs, 3–5 m tall. Petiole up to 3.5 cm; leaf blade broadly elliptic to obovate, 3–8 × 2.5–6 cm, gray pubescent on both sides or more distinctly so abaxially, base rounded to broadly cuneate, margin entire, apex rounded to retuse, lateral veins 6–11 pairs. Inflorescence paniculate, pubescent. Pedicel 7–10 mm; flower ca. 3 mm in diam. Calyx glabrous, lobes ovate-triangular, ca. 1.2 × 0.8 mm. Petals ovate to ovate-lanceolate, 2–2.5 × ca. 1 mm. Stamens ca. 1.5 mm; anthers ovoid, equal to filaments in length. Disk 5-lobed, purplish brown. Ovary subglobose, ca. 0.5 mm in diam.; styles 3, free, unequal. Drupe reniform, ca. 4.5 × 2.5 mm, glabrous. Fl. Feb–Aug, fr. May–Nov.

Hill forests, hill and mountain thickets; 700–2400 m. Gansu, Gui-

zhou, Hebei, Henan, Hubei, Jiangsu, Shaanxi, Shandong, Shanxi, Sichuan, Yunnan, Zhejiang [NW India, Nepal, Pakistan; SW Asia, Europe].

- 1a. Leaf blade glabrous ..... 2c. var. *glaucohylla*
- 1b. Leaf blade pubescent.
  - 2a. Leaf blade obovate, grayish pubescent on both sides, or more distinctly so abaxially; inflorescence pubescent ..... 2a. var. *cinerea*
  - 2b. Leaf blade broadly elliptic, densely pubescent abaxially, especially along midrib and veins; inflorescence glabrous or subglabrous ..... 2b. var. *pubescens*

2a. *Cotinus coggygia* var. *cinerea* Engler, Bot. Jahrb. Syst. 1: 403. 1881.

灰毛黄栌 hui mao huang lu

*Cotinus cinerea* (Engler) F. A. Barkley.

Leaf blade obovate, grayish pubescent on both sides or more distinctly so abaxially. Inflorescence pubescent. Fl. Feb–Mar, fr. May–Aug.

Hill forests on southern slopes; 700–1700 m. Hebei, Henan, Hubei, Shandong, Sichuan [SW Asia, S Europe].

The wood yields a yellow dye that was used in ancient China. The striking red autumn color of the leaves is famous in Beijing where it is referred to as “west hills red leaf.”

2b. *Cotinus coggygia* var. *pubescens* Engler, Bot. Jahrb. Syst. 1: 403. 1881.

毛黄栌 mao huang lu

Leaf blade broadly elliptic, densely pubescent abaxially, especially along midrib and veins. Inflorescence glabrous or subglabrous. Fl. May.

Hill forests; 800–1500 m. Gansu, Guizhou, Henan, Hubei, Jiangsu, Shaanxi, Shandong, Shanxi, Sichuan, Zhejiang [SW Asia, S Europe].

Fl. China 11: 343–345. 2008.

**2c. *Cotinus coggygia* var. *glaucophylla*** C. Y. Wu, Fl. Yunnan. 2: 386. 1979.

粉背黄栌 fen bei huang lu

Leaf blade ovate, glabrous, distinctly glaucous abaxially. Fl. May–Aug, fr. Oct–Nov.

• Hill and mountain thickets; 1600–2400 m. Gansu, Shaanxi, Sichuan, Yunnan.

The name *Cotinus coggygia* var. *laevis* (Wallich ex G. Don) Engler has been misapplied to this taxon.

**3. *Cotinus szechuanensis*** A. Pénzes, Acta Bot. Sin. 7(3): 169. 1958.

四川黄栌 si chuan huang lu

Shrubs, 2–5 m tall. Petiole slender, 1–3 cm, glabrous; leaf blade suborbicular or broadly ovate, 2–6 × 2–5 cm, papery, glabrous adaxially, abaxially with tufts of hair in axils of veins, base rounded, apex rounded, rarely slightly retuse or acute, lateral veins prominent. Inflorescence paniculate, terminal, with slender branches, glabrous. Pedicel 3–4 mm, longer and light purple villous in sterile flowers. Calyx glabrous, lobes ovate-triangular, ca. 1 mm. Petals oblong-elliptic, ca. 1.5 mm, glabrous. Stamens shorter than petals; anthers ovoid. Disk annular. Ovary reniform, ca. 0.7 mm, glabrous, slightly compressed; styles 3, lateral. Drupe reniform, ca. 4.5 × 3 mm, glabrous, rugose. Fl. May, fr. Oct.

• Hill thickets and grasslands; 800–1900 m. NW Sichuan (Lixian).

Fl. China 11: 343–345. 2008.