

45. MAACKIA Ruprecht, Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Petersbourg 15: 143. 1856.

马鞍树属 ma an shu shu

Bao Bojian (包伯坚); Michael A. Vincent

Trees or shrubs; buds axillary, exposed, bud scales imbricate. Leaves imparipinnately compound, alternate, estipulate, petiolate, deciduous; leaflets opposite or nearly opposite, entire, estipellate; petiolule short. Racemes simple or branched at base, terminal. Flowers many, dense; bracteoles caducous. Calyx inflated, campanulate or cylindrical, 5-toothed. Corolla white to greenish white; standard obovate, long elliptic-obovate, or obovate-cuneate, reflexed; wings oblique-oblong, hastate at base; keels slightly incurved, partially fused ventrally. Stamens 10; filaments slightly fused at base; anthers versatile, elliptic. Ovary sessile, densely hairy, few ovuled; style slightly incurved; stigmas small, terminal. Legume flat, long elliptic to linear or ovate, straight or curved, narrowly winged along ventral suture or not. Seeds 1–5, long elliptic, flat.

Twelve species: E Asia; seven species (six endemic) in China.

- 1a. Leaflets 3–5(–7); legume slightly curved to falcate; fruit neck slender, 5–15 mm; flowers ca. 20 mm 1. *M. tenuifolia*
- 1b. Leaflets (7–)9–15; legume not falcate; fruit neck absent; flowers less than 12 mm.
 - 2a. Legume winged along ventral suture; wing 2–6 mm wide.
 - 3a. Leaflets lanceolate-elliptic or long ovate-elliptic, acuminate at apex; flowers 7–8 mm; legume wing 1–4 mm wide 6. *M. taiwanensis*
 - 3b. Leaflets ovate or ovate-elliptic, obtuse at apex; flowers ca. 10 mm; legume wing 2–6 mm wide 7. *M. hupehensis*
 - 2b. Legume ± wingless along ventral suture, rarely winged to 1 mm.
 - 4a. Leaves sparsely pubescent abaxially.
 - 5a. Flowers ca. 10 mm; small trees; leaflets acute at apex 4. *M. hwasanensis*
 - 5b. Flowers ca. 6 mm; shrubs; leaflets acuminate at apex 5. *M. chekiangensis*
 - 4b. Leaves glabrous abaxially, rarely hairy at base of main vein.
 - 6a. Legume 3–7 cm, length usually 3–6 × width; flowers ca. 10 mm 2. *M. amurensis*
 - 6b. Legume less than 3.5 cm, length less than 3 × width; flowers 6–7 mm 3. *M. australis*

1. *Maackia tenuifolia* (Hemsley) Handel-Mazzetti, Symb. Sin. 7: 544. 1933.

光叶马鞍树 guang ye ma an shu

Euchresta tenuifolia Hemsley, J. Linn. Soc., Bot. 23: 200. 1887; *Maackia honanensis* L. H. Bailey.

Shrubs or trees, 2–7 m tall; stem gray; buds densely brown hairy. Leaves 12–16.5 cm; rachis sparsely gray-white pubescent; leaflets 3–5(–7); petiolule very short; terminal leaflet obovate or elliptic, ca. 10 × 6 cm, base cuneate or rounded, apex acuminate; lateral leaflets elliptic or long elliptic, 4–9.5 × 2–4.5 cm, hairy along main vein, base cuneate, apex acuminate. Racemes terminal, 6–10.5 cm. Flowers 1.8–2.1 cm; pedicel 8–12 mm, slender. Calyx cylindrical, ca. 8 mm; teeth short, gray pubescent at margin. Corolla green-white. Ovary densely yellow-brown pubescent, ca. 12 mm, stalked; style ca. 1 mm. Legumes brown, linear, 5.5–10 × 0.9–1.4 cm, slightly curved to falcate, compressed, densely villous, wingless; fruit neck 5–15 mm; fruit stalk ca. 1 cm. Seeds 2–4, light red to scarlet, reniform, compressed. Fl. Apr–May, fr. Aug–Sep.

• Forests, hill slopes. Henan, Hubei, Jiangsu, Jiangxi, Shaanxi, Zhejiang.

2. *Maackia amurensis* Ruprecht, Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Petersbourg 15: 128, 143. 1856.

朝鲜槐 chao xian hui

Cladrastis amurensis (Ruprecht) Benth.

Trees deciduous, to 15 m tall, to 60 cm d.b.h.; bark green-brown, scaly; branches purple-brown, lenticellate, hairy when young, then glabrous; buds glabrous. Leaves 15–23 cm; leaflets 7–9(–11); petiolule 3–6 mm; blades ovate to obovate-elliptic, 3.5–6.8(–9.7) × (1–)2–3.5(–5) cm, papery, densely hairy when young, becoming glabrate, rarely sparsely villous near main vein abaxially, base broadly cuneate or cuneate, apex acute to acuminate. Racemes 5–9 cm; rachis densely brown hairy. Flowers 0.8–1.2 cm; pedicel (3.2–)4–6(–10) mm. Calyx campanulate, 2.1–4 mm; teeth short, densely yellow-brown appressed pubescent. Corolla white, 7–11 mm; standard obovate, apex emarginate, narrowing to claw at base; wings oblong, 2-auriculate at base. Ovary linear, densely yellow-brown hairy. Legumes dark brown, linear, 3–7 × 1–1.2 cm, pubescent or subglabrous, wing 0.4–1.2 mm; stalk 5–10 mm. Seeds 1–4, yellow to yellow-brown, long elliptic, 6–8 mm. Fl. Jun–Jul, fr. Sep–Oct.

Forests on hill slopes; 300–900 m. Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Shandong [Korea, Russia].

3. *Maackia australis* (Dunn) Takeda, Notes Roy. Bot. Gard. Edinburgh 8: 102. 1913.

华南马鞍树 hua nan ma an shu

Cladrastis australis Dunn, Bull. Misc. Inform. Kew, Addit. Ser. 10: 86. 1912; *Maackia ellipticocarpa* Merrill.

Shrubs or small trees, to 2 m tall; branchlets ± glabrous. Leaves 13.8–22 cm; leaflets 7–11, ovate to ovate-elliptic, 2.5–7.6 × 1.3–4.1 cm, glabrous, base cuneate or rounded, apex acute

or acuminate. Racemes 10–20 cm. Flowers 6–7 mm; pedicels 2.5–5 mm. Calyx campanulate, 2.1–2.4 mm; teeth to 1 mm. Corolla white, 5–6 mm; standard elliptic-obovate, apex slightly emarginate, narrowed to a short claw; wings narrowly elliptic, auricles short. Ovary narrowly elliptic, densely hairy. Legumes flat, oval or ovate, 2.8–3.5 × 1.2–1.7 cm, pubescent to nearly glabrous, at least slightly golden glandular, wing 0.4–1.1 mm, rarely absent; fruit neck absent. Seeds 1–3, yellow, flat, oval, 7–9 mm. Fl. Jul.

- Scrub. Guangdong.

4. *Maackia hwaschanensis* W. T. Wang ex C. W. Chang, Fl. Tsinling. 1(3): 444. 1981.

华山马鞍树 hua shan ma an shu

Trees small, to 2 m tall; branchlets gray-brown; buds ovoid, hairy. Leaves 18–24(–27) cm; leaflets 9–11; petiolule 2–3 mm, densely white pubescent; blades elliptic-ovate or ovate-oblong, 3.5(–7.7) × 1.6–4 cm, adnate gray hairy abaxially, glabrous adaxially, base broadly cuneate or rounded, apex acute to acuminate. Racemes 3.4–4.5 cm; rachis brown hairy. Flowers 1–1.2 cm; pedicel 4–8 mm. Calyx campanulate, 4–6 mm; teeth to 2.5 mm. Corolla white, 9–11 mm; standard broadly elliptic, slightly emarginate at apex, abruptly narrowed to a narrow claw; wings narrowly elliptic, auricles small. Ovary narrowly elliptic, pubescent. Legumes long elliptic or ovate-elliptic, 3.5–5.5 × 1.3–1.5 cm, beaked at apex; stalk 6–7 mm, pubescent. Seeds reddish brown to yellow-brown, reniform, 8–10 × 5–5.3 mm. Fl. Jul–Aug, fr. Aug–Sep.

- Forests in valleys and on hill slopes; 100–2100 m. Henan, Shaanxi.

5. *Maackia chekiangensis* S. S. Chien, Contr. Biol. Lab. Sci. Soc. China, Bot. Ser. 8: 132. 1932.

浙江马鞍树 zhe jiang ma an shu

Shrubs, 1–1.5 m tall; branchlets gray-brown, lenticellate, smooth, glabrous. Leaves 13–20 cm; leaflets 9–11, opposite; petiolule 1–2 mm; blades ovate-lanceolate or elliptic-ovate, 2.1–6.3 × 1.1–3 cm, sparsely light brown hairy abaxially, glabrous adaxially, base cuneate, apex acuminate. Racemes 8–14 cm; rachis light brown pubescent. Flowers dense; pedicel slender, 2–3.5 mm; bracteoles subulate, 1.3–2 mm. Calyx campanulate, 2.1–2.4 mm; teeth to 1.3 mm, brown adnate hairy. Corolla white; standard oblong, 3–5 × 1.2–1.7 mm, slightly emarginate at apex, claw ca. 0.6 mm; keels oval-oblong, spurred at base. Ovary narrowly oblong, shortly stalked, densely brown hairy. Legumes elliptic, ovate, or oblong, 2.7–4 × 1.1–1.5 cm, beaked at apex, narrowly winged along sutures, brown pubescent; fruit neck absent; stalk ca. 3 mm. Seed 1, yellow-brown. Fl. Jun, fr. Sep.

- Forests; below 500 m. Anhui, Guangdong, Jiangxi, Zhejiang.

6. *Maackia taiwanensis* Hoshi & H. Ohashi, J. Jap. Bot. 62: 98. 1987.

多花马鞍树 duo hua ma an shu

Maackia tashiroi Makino var. *taiwaniana* Kanehira.

Trees, to 10 m tall; young branches densely pubescent, then dark gray or dark purple, glabrous; buds ovoid, glabrous or glabrescent. Leaves 10–16 cm; leaflets 11–15; petiolule 2–6 mm; blades lanceolate-elliptic or long ovate-elliptic, 2–4.2 × 1–2 cm, glabrous, base cuneate or rounded, apex acute. Racemes 8–10 cm, erect, yellow-brown hairy. Flowers 7–8 mm; pedicel 2–4 mm. Calyx campanulate; teeth short, densely yellow-brown hairy. Corolla white; standard obovate, apex emarginate. Ovary narrowly elliptic, shortly stalked, densely brown hairy. Legumes flat, elliptic, 3.3–6 × 1–1.5 cm, wing 1–4 mm, shortly hairy. Seeds 1 or 2, elliptic, 5–7 mm, brown-purple. Fl. Jul–Aug.

- Hills. Taiwan.

The Chinese record of *Maackia floribunda* (Miquel) Takeda (FRPS 40: 62. 1994) is referable to *M. taiwanensis*.

7. **Maackia hupehensis** Takeda in Sargent, Pl. Wilson. 2: 98. 1914.

马鞍树 ma an shu

Maackia chinensis Takeda; *M. floribunda* (Miquel) Takeda var. *chinensis* (Takeda) Hatusima.

Trees, 5–23 m tall, 20–80 cm d.b.h.; bark green-gray or gray-brown, smooth; young branches and buds hairy, old branches purple-brown, glabrous. Leaves 12–20 cm; leaflets 9–13, opposite distally, sometimes subopposite proximally, ovate, ovate-elliptic, or elliptic, 2–8 × 1.5–2.8 cm, pubescent, base cuneate or rounded, apex obtuse or acute. Racemes 3.5–8 cm; rachis densely brown hairy. Flowers 8–10 mm; pedicel 2–4 mm, slender, densely hairy. Calyx 1.6–3.3 mm, campanulate; teeth to 1.6 mm, densely yellow-brown hairy. Corolla white; standard ovate or obovate, 4–6 mm, claw to 2 mm. Ovary densely villous, linear-oblong. Legumes brown, narrowly ovate to elliptic, flat, 4.5–8.5 × 1.6–2.5 cm; wing 2–6 mm; stalk 5–7 mm. Seeds 2 or 3, yellow-brown, lustrous, elliptic. Fl. Jun–Jul, fr. Aug–Sep.

• Hill slopes, valleys, streamsides; 500–2300 m. Anhui, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Sichuan, Zhejiang.

