

72. NEOSHIRAKIA Esser, Blumea 43: 129. 1998.

白木乌柏属 bai mu wu jiu shu

Li Bingtao (李秉滔 Li Ping-tao); Hans-Joachim Esser

Excoecaria sect. *Parasapium* Müller Argoviensis, Linnaea 32: 123. 1863; *Shirakia* Hurusawa (1954), not S. Kawasaki (1934).

Trees or shrubs, monoecious or sometimes one sex missing; indumentum absent; latex white. Leaves alternate; stipules long and conspicuous, caducous; petioles without glands; leaf blade margin entire, with an abaxial row of marginal glands below; venation pinnate. Inflorescences terminal or axillary, long racemelike thyrses, unbranched, apetalous, without disk; bracts with 2 large abaxial glands at base. Male flowers yellow, 3 per bract, pedicellate; calyx membranous, cup-shaped, 3-lobed; stamens 3; filaments free; anthers 2-celled, longitudinally dehiscent; pistillode absent. Female flowers larger than male, 1 per bract, pedicellate; calyx cup-shaped, 3-partite; ovary 3-celled, smooth; ovules one per cell; styles usually 3, free; stigma revolute, entire, eglandular. Fruit a capsule, pedicellate, globose, 3-valved, 3-celled, septically dehiscent. Seeds subglobose, dry; caruncle absent; central columella persistent; testa hard, without waxy aril; endosperm fleshy; cotyledon broad and flattened.

Two or three species: China, Japan, Korea; two species (one endemic) in China.

- 1a. Leaf blade elliptic to slightly obovate, with a pair of basal glands; fruiting pedicel more than 10 mm 1. *N. japonica*
1b. Leaf blade ovate-elliptic, without basal glands; fruiting pedicel less than 10 mm 2. *N. atrobadiomaculata*

1. Neoshirakia japonica (Siebold & Zuccarini) Esser, Blumea 43: 129. 1998.

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Stillingia japonica Siebold & Zuccarini, Abh. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. 4(2): 145. 1845; *Excoecaria japonica* (Siebold & Zuccarini) Müller Argoviensis; *Sapium japonicum* (Siebold & Zuccarini) Pax & K. Hoffmann; *Shirakia japonica* (Siebold & Zuccarini) Hurusawa; *Triadica japonica* (Siebold & Zuccarini) Baillon.

Treelets to 8 m tall, glabrous; branches slender, smooth, gray-brown. Stipules membranous, linear-lanceolate, ca. 1 cm; petiole 1.5–3 cm, bilateral flattened into attenuate winged shape, without glands; leaf blade ovate, ovate-rectangular, or elliptic, 7–16 × 4–8 cm, papery, base obtuse, truncate, or sometimes shallowly cordate, usually oblique, margin entire, sparsely glandular abaxially in upper half near margin, with 2 glands at base of midrib; midrib elevated abaxially, lateral veins 8–10 pairs. Inflorescences terminal, 4.5–11 cm, female flowers at base, male ones at upper part, or sometimes male throughout. Male flowers: pedicels 1–2 mm; bracts ovate to ovate-lanceolate, 2–2.5 × 1–1.2 mm, margins irregularly serrulate, basal glands ovoid, bracts 3- or 4-flowered; calyx cup-shaped, 3-lobed, lobes irregularly serrulate; stamens (2 or)3, usually exceeding calyx; anthers globose, slightly shorter than filaments. Female flowers: bracts 3-partite almost to base, lobes lanceolate, 2–3 mm, usually central ones larger, lateral lobes each 1-glandular; pedicels stout, 6–10 mm; calyx lobes 3, triangular, nearly as long as wide; ovary ovoid, smooth, 3-celled; styles connate at base; stigma 3, revolute. Capsules triangular-globose, 10–15 mm in diam.; columella deciduous. Seeds oblate, 6–9 mm in diam., with tawny maculate stripes. Fl. May–Jun, fr. Jul–Sep.

Moist forests; 100–400 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hunan, Hubei, Jiangsu, Jiangxi, Shandong, Sichuan, Zhejiang [Japan, Korea].

Initial observations suggest that the Chinese material of *Neo-*

shirakia japonica can be divided into two forms, one of relatively limited distribution matching the type from Japan and the other more widespread differing in leaf shape and enlarged basal glands and probably representing a third species.

2. Neoshirakia atrobadiomaculata (F. P. Metcalf) Esser & P. T. Li, **comb. nov.**

斑子乌柏 ban zi wu jiu

Basionym: *Sapium atrobadiomaculatum* F. P. Metcalf, Lingnan Sci. J. 10: 490. 1931. Type: China. Fujian: Shouning, R. C. *Ching* 2224 (lectotype designated here, A; duplicates, UC, US).

Shrubs 1–3 m tall, glabrous; branchlets slender, longitudinally angular. Leaves alternate; stipules membranous, linear-lanceolate, deciduous; petiole 5–12 mm, bilateral flattened into winged shape, 2-glandular at apex; leaf blade narrowly elliptic or lanceolate, 3–9 × 1.5–3 cm, papery, base broadly cuneate or obtuse, margin entire, apex shortly acuminate, rounded glands near margin and basal lateral veins abaxially; midvein slightly elevated on both surfaces, lateral veins ca. 7 pairs, campylodromous, ascending steeply and running close to edge some distance before termination. Inflorescences terminal, racemes 2–4 cm, female flowers 1 or 2 at base, sometimes absent, male flowers many along upper part. Male flowers: bracts 2- or 3-flowered, ovate to lanceolate, 0.5–2 mm, sparsely serrulate, basal glands reniform, glands at base bilateral, each bract pedicel filamentous, 1–2 mm; calyx cup-shaped, 3-lobed, lobes broadly ovate, serrulate; stamens 2 or 3; filaments very short; anthers globose. Female flowers: pedicels stouter, 3–5 mm; bracteoles 3, central ones lanceolate, ca. 2 mm, lateral ones smaller, attenuately ovate, ca. 1 mm, with 2 basal abaxial glands; sepals 3, ovate, ca. 1.5 × 1 mm; ovary subglobose, ca. 3 mm in diam., smooth; styles short; stigma 3-lobed, revolute. Capsules triangular-globose, ca. 5 mm in diam., with dark brown stripes of spots. Fl. Mar–May, fr. Jun–Sep.

• Dry woods, sparse forests on slopes, brushwood, roadsides; 100–400 m. Fujian, Guangdong, Hunan, Jiangxi.

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