

4. HERITIERA Aiton, Hort. Kew. 3: 546. 1789.

银叶树属 yin ye shu shu

Sutherlandia J. F. Gmelin (1792), not R. Brown (1812), nom. cons.

Trees, usually with buttress. Leaves alternate, simple or palmately compound, abaxially usually scaly. Inflorescence cymose, paniculate, axillary, many-flowered, hairy or scaly. Flowers unisexual. Calyx campanulate or urceolate, 4–6-lobed. Petals absent. Male flowers: androgynophore short. Anthers 4–15, in 1 or 2 rings at apex of androgynophore, with pistillode. Female flowers: ovary with 3–5 coherent carpels, base with sterile anthers; ovules 1 per carpel. Style very short; stigma very small. Fruit woody or leathery, with keel-like prominence or wing, indehiscent. Seeds without endosperm.

About 35 species: tropical Africa, Asia, and Australasia; three species in China.

- 1a. Fruit leathery, apex with long fishtail-shaped wing, wing 2–4 cm; calyx white 1. *H. parvifolia*
1b. Fruit woody, with keel-like prominence or short ca. 1 cm wing; calyx red or red-brown.
2a. Fruit with keel-like prominence; anthers 4 or 5 in 1 ring; petiole less than 2 cm 2. *H. littoralis*
2b. Fruit with short ca. 1 cm wing; anthers 8–12 in 2 rings; petiole 2–9 cm 3. *H. angustata*

1. *Heritiera parvifolia* Merrill, J. Arnold Arbor. 6: 137. 1925.

蝴蝶树 hu die shu

Tarrietia parvifolia (Merrill) Merrill & Chun.

Evergreen trees, up to 30 m tall; bark gray. Branchlets densely scaly. Petiole 1–1.5 cm; leaf blade elliptic-lanceolate, 6–8 × 1.5–3 cm, abaxially densely silver-white or brown scurfy scaly, adaxially glabrous, lateral veins 6 on each side of midrib, base acute or nearly rounded, apex acuminate. Inflorescence paniculate, densely ferruginous stellate pilose. Calyx white, ca. 4 mm, 5–6-lobed, both surfaces stellate puberulent, lobes oblong-ovate, 1.5–2 mm. Male flower: androgynophore ca. 1 mm, base surrounded by thick disk, ca. 0.8 mm in diam. Anthers 8–10, in 1 ring. Female flowers: ovary ca. 2 mm, hairy. Fruit 4–6 cm, seed-bearing portion 1–2 cm, apical wing fishtail-shaped, ca. 2 cm wide, apex obtuse, densely scurfy scaly; endocarp leathery. Seeds ellipsoid. Fl. May–Jun.

Montane forests. S Hainan [India, Myanmar, Thailand].

Heritiera parvifolia is an important timber tree.

2. *Heritiera littoralis* Aiton, Hort. Kew. 3: 546. 1789.

银叶树 yin ye shu

Evergreen trees, up to 10(–15) m tall; bark gray-brown. Young branchlets white scurfy scaly. Stipules lanceolate, caducous; petiole 1–2 cm; leaf blade oblong-lanceolate, elliptic, or ovate, 10–20 × 5–10 cm, leathery, abaxially densely silver-white scurfy scaly, adaxially glabrous or nearly so, base obtuse, apex acute or obtuse. Inflorescence paniculate, axillary, ca. 8 cm, densely stellate hairy or with scales. Calyx red-brown, campanulate, 4–6 mm, both surfaces stellate hairy, lobes triangular,

ca. 2 mm. Male flowers: disk thin, papillate. Androgynophore short and glabrous. Anthers 4 or 5, in 1 ring. Female flowers: carpels 4 or 5. Stigmas as many as carpels, short and curved downward. Fruit nutlike, woody, drying yellow-brown, nearly ellipsoid, ca. 6 × 3.5 cm, keeled on back, glabrous. Seeds ovoid, ca. 2 cm. Fl. summer.

Mangrove forests. Guangdong, Guangxi, Hainan, Taiwan [Cambodia, India, Indonesia, Malaysia, Philippines, Sri Lanka, Vietnam; E Africa, Australia].

The hard, strong timber is used for ships' masts when sufficiently straight and long, as well as for house posts, joists, wheel hubs, and boat ribs.

3. *Heritiera angustata* Pierre, Fl. Forest. Cochinch. t. 204c. 1889.

长柄银叶树 chang bing yin ye shu

Evergreen trees, up to 12 m tall; bark gray. Young branchlets pilose. Stipules linear-lanceolate, 2–9 cm, deciduous; leaf blade oblong-lanceolate, 10–30 × 5–15 cm, abaxially with silvery white or slightly golden scales, adaxially glabrous, base acute or subcordate, apex acuminate or obtuse. Inflorescence paniculate, terminal or axillary. Calyx red, urceolate, ca. 6 × 2.5–4 mm, 4–6-lobed, both surfaces stellate hairy, lobes triangular. Male flowers: androgynophore 2–3 mm. Anthers 8–12, in 2 rings. Female flowers shorter than male flowers; stamens 4–10 around base of ovary. Ovary globose, slightly 5-angular, puberulent; style short; stigma 5-lobed. Fruit drupelike, brown, hard, ellipsoid, ca. 3.5 cm, apex with ca. 1 cm wing. Seeds ovoid. Fl. Jun–Nov.

Mountains, near coasts. SE Hainan, Yunnan [Cambodia].

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