

9. MITREPHORA J. D. Hooker & Thomson, Fl. Ind. 1: 112. 1855, not *Mitrophora* Necker ex Rafinesque (1813), nor Léveillé (1846) [Fungi].

银钩花属 yin gou hua shu

Li Bingtao (李秉滔 Li Ping-tao); Aruna D. Weerasooriya, Richard M. K. Saunders

Uvaria sect. *Mitrephorae* Blume, Fl. Javæ, Annonaceae, 13. 1830; *Kinginda* Kuntze.

Trees to 40 m tall. Petiole short; leaf blade venation arcuately looped near margin, secondary veins 4–24 on each side of midvein. Flowers terminal, leaf opposed, or extra-axillary, solitary or in cymes; sympodial rachides simple or branched, internodes short or long. Flowers bisexual, pendent. Pedicel short or long, with basal bracts and submedian bracteoles. Sepals 3, valvate, basally ± connate. Petals 6, in 2 whorls, free, with each whorl valvate; outer petals usually smaller than inner petals, without a basal claw; inner petals with base clawed, apically connivent to form a mitriform dome. Stamens many; anthers cuneate, extrorse; connectives apically truncate. Carpels few to many, free; ovules several per carpel, in 2 series. Fruit apocarpous; monocarps sessile or stipitate, globose, obovoid, or cylindric, sometimes longitudinally ridged, smooth or rarely warty.

About 47 species: tropical and subtropical Asia; three species in China.

- 1a. Petioles and abaxial surface of leaf blades densely hairy; bracteoles 4.5–7.5 × 3.5–9 mm; sepals 5–9 × 5–9 mm; carpels 12–17; monocarps subglobose, without a longitudinal ridge 1. *M. tomentosa*
- 1b. Petioles and abaxial surface of leaf blades subglabrous to sparsely hairy; bracteoles 1.5–3.5 × 1–4 mm; sepals 3–4 × 3–4.5 mm; carpels 7–10; monocarps ± elongate, with a longitudinal ridge.
- 2a. Leaf blade secondary veins 7–9 on each side of midvein; outer petal margin never undulate; monocarp stipes 1.4–1.8 cm 2. *M. macclurei*
- 2b. Leaf blade secondary veins 10–14 on each side of midvein; outer petal margin undulate in older flowers; monocarp stipes 0.9–1.3 cm 3. *M. wangii*

1. Mitrephora tomentosa J. D. Hooker & Thomson, Fl. Ind. 1: 113. 1855.

银钩花 yin gou hua

Kinginda thorelii (Pierre) Kuntze; *K. tomentosa* (J. D. Hooker & Thomson) Kuntze; *Mitrephora bousigoniana* Pierre; *M. collinsae* Craib; *M. edwardsii* Pierre; *M. thorelii* Pierre; *M. thorelii* var. *bousigoniana* (Pierre) Finet & Gagnepain; *M. thorelii* var. *microphylla* Finet & Gagnepain; ?*M. vandiflora* Kurz.

Trees to 20 m tall. Branches densely hairy when young. Petiole 4–12.5 mm, densely hairy; leaf blade ovate, lanceolate, or rarely oblong, 6.5–21.5 × 3–10 cm, leathery, abaxially densely hairy, adaxially glabrous, secondary veins (8–)14–20 on each side of midvein, base rounded to slightly cordate, apex acute to shortly acuminate. Inflorescence rachides unbranched, internodes short. Pedicel 1.1–2.3 cm; bracteoles 4.5–7.5 × 3.5–9 mm. Sepals ovate, 5–9 × 5–9 mm. Outer petals pale yellow turning dark yellow, lanceolate to oblanceolate, 1.6–2(–3.4) × 0.7–1.8 cm, margin undulate on older flowers; inner petals cream to yellow with apical purple streaks, 0.8–1.7 × 0.7–1.3 cm. Stamens 1–1.3 mm. Carpels 12–17, 1.5–1.7 mm; ovules 10–12 per carpel. Fruiting pedicel 1.5–3.4 cm; monocarp stipes 1.6–3(–3.9) cm; monocarps subglobose, 1.2–2.3 × 0.8–2 cm, densely hairy, smooth, without longitudinal ridge. Seeds ca. 12 × 8 mm. Fl. Jan–Apr, fr. May–Sep.

Wet and dry evergreen broad-leaved forests; below 100–1200 m. W Guangxi, S Guizhou, Hainan, S Yunnan [Cambodia, India (Assam), Laos, Thailand, Vietnam].

The wood of *Mitrephora tomentosa* is used for building carts and as structural timbers. The bark is a source of saponins and is used as a soap.

2. Mitrephora macclurei Weerasooriya & R. M. K. Saunders, Syst. Bot. 30: 251. 2005.

山蕉 shan jiao

Trees to 10 m tall. Branches densely hairy when young. Petiole 6–8.5 mm, sparsely hairy; leaf blade lanceolate, (8–)10–14 × 3–4.5 cm, leathery, abaxially subglabrous to sparsely hairy, adaxially glabrous, secondary veins 7–9 on each side of midvein, base broadly cuneate, apex acute. Inflorescence rachides unbranched, internodes short. Pedicel 1.2–2 cm; bracteoles 1.5–3.5 × 2–4 mm. Sepals ovate, 3–4 × 3–3.5 mm. Outer petals white turning yellow, elliptic to ovate, 1.8–2.5 × 1.1–2 cm, margin never undulate; inner petals purple, 1.1–1.3 × 0.6–0.9 cm. Stamens 1.5–1.9 mm. Carpels 7 or 8, 2–2.5 mm; ovules 8–10 per carpel. Fruiting pedicel ca. 1.3 cm; monocarp stipes 1.4–1.8 cm; monocarps obovoid, ca. 3.8 × 2.5 cm, sparsely hairy, smooth, with longitudinal ridge. Seeds ca. 1.2 × 1 cm. Fl. Mar–May, fr. Sep–Oct.

Riverine forests; ca. 800 m. Guangxi, S Guizhou, Hainan, S Yunnan [Laos, Malaysia (peninsular), Vietnam].

Previous workers (e.g., FRPS 30(2): 58. 1979) have confused *Mitrephora macclurei* with *M. teysmannii* Scheffer (generally under the synonym *M. maingayi* J. D. Hooker & Thomson). They are most easily distinguished by the outer petals, which in *M. teysmannii* are cream-colored with reddish streaks (becoming dark yellow with reddish brown

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streaks with age) and have undulate margins, whereas in *M. macclurei* the outer petals are uniformly white (becoming yellow with age) and lack undulate margins. The Chinese material corresponds to *M. macclurei*. It is cultivated in Guangdong.

3. *Mitrephora wangii* Hu, Bull. Fan Mem. Inst. Biol. 10: 123. 1940.

云南银钩花 yun nan yin gou hua

Trees to 10 m tall. Branches densely hairy when young. Petiole 6.5–11.5 mm, sparsely hairy; leaf blade oblong-lanceolate, 10.5–24(–27) × 3.5–8 cm, leathery, abaxially sparsely hairy, adaxially glabrous, secondary veins 10–14 on each side of midvein, base cuneate to broadly cuneate, apex shortly acuminate to acuminate. Inflorescence rachides unbranched, internodes short. Pedicel 1.2–1.7 cm; bracteoles 1.5–2 × 1–1.5 mm. Sepals ovate, 3–3.5 × 3–4.5 mm. Outer petals white turning bright yellow, ovate, 1.6–2.3 × 1–1.9 cm, margin ± undulate on older flowers; inner petals purplish, 1.1–1.9 × 0.6–1.3 cm. Stamens 0.8–1 mm. Carpels 8–10, 1.8–2 mm; ovules 6–8 per carpel. Fruiting pedicel 1–1.6 cm; monocarp stipes 0.9–1.3 cm; monocarps oblong, 2.4–3.8 × 1.4–2.6 cm, sparsely hairy, smooth, with longitudinal ridge. Seeds ca. 9 × 6 mm. Fl. Jan–May, fr. Jun–Sep.

Densely forested slopes; 500–1600 m. S Yunnan [N Thailand].

Mitrephora wangii is listed as Vulnerable (VU A2c) by the *IUCN Red List of Threatened Species* (Version 2010.3; <http://www.iucnredlist.org>; accessed on 6 Oct 2010).

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