

## 14. OPERCULINA S. Manso, Enum. Subst. Bras. 16. 1836.

盒果藤属 he guo teng shu

Herbs twining, often with winged stems, peduncles, and petioles. Leaves petiolate, angular or palmate, base often cordate, margin entire. Flowers axillary, solitary or in few-flowered cymes; bracts deciduous, often foliose. Sepals often enlarged in fruit, margin becoming irregularly lacerate. Corolla broadly funnelform, rarely campanulate or nearly salverform, glabrous or midpetaline bands pubescent outside. Stamens included (exserted in 1 sp.); filaments adnate to corolla tube basally, filiform distally; anthers often spirally twisted at dehiscence; pollen 3-colpate, not spiny. Disc ringlike. Ovary 2-loculed, 4-ovuled, glabrous. Style filiform, included; stigma 2-globose. Fruit circumscissile in or above middle, distal portion lidlike, ± fleshy, separating from papery endocarp, which shatters irregularly. Seeds 4 or fewer, trigonous or globular, glabrous or angles pilose.

About 15 species: worldwide in the tropics; one species in China.

### 1. *Operculina turpethum* (Linnaeus) S. Manso, Enum. Subst. Bras. 16. 1836.

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*Convolvulus turpethum* Linnaeus, Sp. Pl. 1: 155. 1753; *Argyreia alulata* Miquel; *Convolvulus anceps* Linnaeus; *Ipomoea anceps* (Linnaeus) Roemer & Schultes; *I. turpethum* (Linnaeus) R. Brown; *I. turpethum* var. *anceps* (Linnaeus) Miquel; *Merremia turpethum* (Linnaeus) Bojer; *Operculina turpethum* var. *heterophylla* H. Hallier; *Spiranthera turpethum* (Linnaeus) Bojer.

Herbs perennial. Roots fleshy, long, much branched. Stems reddish, to 4 m, narrowly 3–5-winged, ± angular, glabrous or densely pilose-tomentose on young parts. Petiole 2–10 cm, often winged; leaf blade cordate-circular, ovate, broadly ovate, ovate-lanceolate, or lanceolate, 4–14 × 3.5–14 cm, abaxially pubescent, adaxially appressed pilose to glabrous, base cordate, truncate or obtuse, margin entire or undulate, apex acute or acuminate, mucronulate. Inflorescences cymose, often 2-flowered; peduncles 0.5–3 cm, usually terete; bracts 2, oblong to ovate-oblong, 1–2.5 cm, concave, pubescent. Pedicel 1.5–2 cm, striate-angular, clavate, to 4 cm in fruit. Sepals ovate to broadly ovate, unequal; outer 2 sepals 1.5–2 cm, abaxially pubescent; inner 3 shorter, subglabrous. Corolla white, sometimes with a yellowish base inside, broadly funnelform, 3.5–4 cm, glabrous, minutely yellowish glandular outside; limb 5-lobed. Filaments pubescent basally; anthers twisted. Fruit enclosed in cupular calyx, depressed globose, ca. 1.5 cm in diam. Seeds dull black, ovoid-trigonous, ca. 6 mm, glabrous. Fl. and fr. year round.  $2n = 30$ .

Stream banks, roadsides, grassy fields, wasteland, dry slopes, clay and sandy soils, scrub bordering valleys; 0–500 m. Guangdong, Guangxi, Hainan, Taiwan, S Yunnan [?Bangladesh, Cambodia, India, Indonesia, Japan (Ryukyu Islands), ?Laos, Malaysia, Myanmar, Nepal, New Guinea, ?Pakistan, Philippines, Sri Lanka, Thailand, Vietnam; E Africa, Australia, introduced in North and South America (West Indies), Pacific Islands].

The leaves and roots are used medicinally.

