

## 10. CAELOSPERMUM Blume, Bijdr. 994. 1826–1827.

穴果木属 xue guo mu shu

Chen Tao (陈涛); Charlotte M. Taylor

Lianas or sometimes shrubs or small trees, unarmed. Raphides present. Leaves opposite or rarely ternate, decussate on ascending branches but distichous on horizontal branches, with domatia; stipules persistent at least on apical 2 or 3 nodes and usually becoming hardened with age, at least shortly united around stem [or rarely interpetiolar], triangular and acute to truncate, sometimes shortly 2-toothed. Inflorescences terminal and sometimes in axils of uppermost leaves, corymbiform to paniculiform with flowers grouped in small heads or umbelliform cymes, many flowered, pedunculate, bracteate or bracts reduced. Flowers pedicellate to sessile, free [sometimes fused by their ovaries], bisexual, apparently monomorphic. Calyx with ovary portion usually hemispherical or campanulate; limb tubular, truncate or 4–6-denticulate. Corolla white becoming yellowed when old, salverform or funnelform, fleshy, variously pubescent inside; lobes 4 or 5 (or 6), valvate in bud. Stamens 4 or 5 (or 6), inserted in corolla tube, exerted; filaments developed; anthers dorsifixed near middle, 2-parted at base. Ovary 2-celled with ovules 2 in each cell or 4-celled via secondarily developing septa and ovules 1 in each cell, ovules inserted on middle of septum, anatropous or pendulous; stigmas 2, linear to spatulate, exerted or included. Fruit simple [sometimes multiple due to fusion of flowers], dark red to dark purple, drupaceous, fleshy, subglobose to ellipsoid, smooth, with calyx limb persistent; pyrenes 2, 3, or usually 4, 1-celled with 1 seed in each cell, ellipsoid to plano-convex, cartilaginous, densely puberulent; seeds medium-sized; endosperm oily; embryo straight.

Seven to ten species: from tropical Asia to Australia; one species in China.

This genus is similar and has long been considered related to *Morinda* and perhaps will be synonymized eventually, but it has provisionally been maintained by recent workers (Razafimandimbison et al., *Molec. Phylogen. Evol.* 48: 207–223. 2008). This genus was studied by Johansson (Blumea 3: 265–297. 1988), who synonymized the two species recognized by Y. Z. Ruan (in *FRPS* 71(2): 166–167. 1999) in China together with several other SE Asian names into a wide-ranging, morphologically variable species with the variation apparently continuous.

**1. *Caelospermum truncatum*** (Wallich) Baillon ex K. Schumann in Engler & Prantl, *Nat. Pflanzenfam.* 4(4): 136. 1891.

穴果木 xue guo mu

*Webera truncata* Wallich in Roxburgh, *Fl. Ind.* 2: 538. 1824; *Caelospermum kanehirae* Merrill; *C. morindiforme* Pierre ex Pitard; *C. scandens* Blume.

Lianas or weak shrubs, to 15 m high; branches weakly flattened to subterete or quadrangular, glabrous or glabrescent. Leaves opposite; petiole 10–25 mm, glabrous to puberulent; blade drying leathery or thickly papery and brownish yellow to pale black, elliptic, elliptic-oblong, lanceolate-oblong, ovate, or obovate, 7–15 × 3–10 cm, adaxially glabrous, abaxially paler and glabrous to puberulent, base cuneate to rounded, apex acute, obtuse, or rounded; secondary veins 4–7 pairs, with pilosulous domatia; stipules broadly triangular, 1–4.5 mm, truncate or 2-denticulate. Inflorescence a cymose panicle of 3–9

corymbs or umbels, 6–17 cm, mealy puberulent; peduncles 2.5–4 cm; umbels 3–20-flowered; bracts reduced. Flowers free, subsessile to pedicellate, pedicels to 6(–11) mm. Calyx mealy puberulent to glabrescent; ovary portion subglobose to cupuliform, 1–1.5 mm; limb 1–2 mm, truncate or 4- or 5-denticulate. Corolla salverform, outside glabrous to sparsely papillose; tube (4–)5–6(–9) mm, pubescent in upper part and throat; lobes linear to oblong-linear, (4.5–)5–6(–12) mm. Drupes subglobose, 8–12(–27) mm in diam. Fl. Apr–May, fr. Jul–Sep.

Thickets or sparse forests on hills or mountains; sea level to 1900 m. Guangxi, Hainan [Cambodia, Indonesia (Borneo, Java, Sumatra), Malaysia, Thailand, Vietnam].

Measurements in parentheses here come from Johansson's (Blumea 3: 265–297. 1988) description of this species throughout its range. He noted that the most widely used name for this species is *Caelospermum scandens*, here included as an aid to relating the Chinese species to the SE Asian flora.

Fl. China 19: 82–83. 2011.