

52. MITRACARPUS Zuccarini in Schultes & J. H. Schultes, Mant. 3: 210
[“*Mitracarpum*”], 399. 1827.

盖裂果属 *gai lie guo shu*

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Herbs [to small shrubs], annual or perennial, unarmed. Raphides present. Leaves opposite, subsessile or sessile, without domatia; stipules persistent, interpetiolar and fused to leaf bases or petioles, truncate to rounded, setose. Inflorescences terminal and/or axillary, glomerulate or capitate, several to many flowered, sessile, sometimes immediately subtended by 1 or 2 pairs of leaves, bracteate. Flowers sessile, bisexual, monomorphic. Calyx limb deeply 4(or 5)-lobed; lobes usually unequal in pairs, usually with hyaline margins. Corolla white, salverform or funnellform, inside glabrous or pubescent in throat; lobes 4, valvate in bud. Stamens 4, inserted in corolla throat, included or exerted; filaments developed; anthers dorsifixed. Ovary 2-celled, ovules 1 in each cell on peltate axile placentas attached at middle of septum; stigmas 2, linear, usually exerted. Fruit capsular, subglobose to somewhat dicocous, with dehiscence circumscissile around equator, with apical valve or “lid” deciduous and basal portion persistent, papery to cartilaginous, with calyx limb persistent or deciduous on lid; seeds 2, medium-sized, oblate to rounded, on ventral (i.e., adaxial) face with cruciform (i.e., X-shaped) scar; endosperm fleshy; cotyledon leaflike; radicle hypogeous.

About 30 species: widespread in tropical and subtropical Central, North, and South America and the Antilles, with one species widely naturalized in tropical Africa, Asia, Australia, and Pacific islands; one species (introduced) in China.

This genus is frequently overlooked even in its native range, but the circumscissile capsules, seeds with a distinctive cruciform scar, leaves scabrous to the touch on the upper surface, and well-developed calyx lobes with hyaline erose margins are distinctive. W. C. Ko (in FRPS 71(2): 210. 1999) described the ovary as sometimes 3-celled; this condition is not otherwise known in *Mitracarpus* and has not been reconfirmed, although it does characterize the very similar, likewise adventive genus *Richardia*.

1. *Mitracarpus hirtus* (Linnaeus) Candolle, Prodr. 4: 572. 1830.

盖裂果 *gai lie guo*

Spermacoce hirta Linnaeus, Sp. Pl., ed. 2, 1: 148. 1762; *Mitracarpus scaber* Zuccarini; *M. senegalensis* Candolle; *M. verticillatus* (Schumacher & Thonning) Vatke; *M. villosus* (Swartz) Candolle; *S. villosa* Swartz; *Staurospermum verticillatum* Schumacher & Thonning.

Herbs, annual, branched, 40–80 cm tall; branches flattened to subterete or 4-angled, sometimes becoming woody in lower part, sparsely hirsute to villous. Leaves sessile; blade drying thinly papery, elliptic-oblong or lanceolate, 3–4.5 × 0.7–1.5 cm, adaxially scaberulous and usually also sparsely villosulous or pilosulous, abaxially moderately to densely villous or pilose, base acute to obtuse or rounded, apex acute; secondary veins 3–6 pairs; stipule sheaths 1–4 mm, villosulous or pilosulous to glabrescent, with 1–9 setae 1–5 mm. Inflorescences 5–20 mm in diam. (not including subtending leaves), villosulous or pilosulous; bracts linear, 1–2 mm. Calyx sparsely to densely puberulent or strigillose; ovary portion subglobose to ellipsoid, ca. 0.5 mm; limb deeply lobed; lobes unequal, triangular to lanceolate, 2 larger 1.8–2 mm, 2 smaller 0.8–1.2 mm, ciliate. Corolla funnellform, outside puberulent to glabrous; tube 1–1.5 mm, glabrous inside; lobes triangular to ovate, 0.5–1 mm, obtuse to acute. Capsules subglobose, ca. 1 mm in diam., scaberulous or sparsely puberulent; seeds dark brown, oblate-suboblong, ca. 0.8 mm. Fl. and fr. Apr–Nov.

Wastelands at highway sides; near sea level to 800 m. Hainan (Wanning), Hong Kong, Yunnan [native to the Antilles and Central, North, and South America]; naturalized in tropical Africa, Asia, Australia, and Pacific islands].

The correct name for this species, whether *Mitracarpus hirtus* or

M. villosus, has been controversial (for additional comments, see Taylor et al., Fl. Venez. Guayana 8: 497–847. 2004); most authors working with neotropical Rubiaceae today use the name *M. hirtus*. The capsules of all the Chinese specimens studied are smaller than those of neotropical plants. Fruit of similar size are found in plants of India (Sebastine & Ramamurthy, Bull. Bot. Surv. India 9: 291–292. 1967, see in particular f. 1–7) and may characterize several adventive populations. W. C. Ko (in FRPS 71(2): 212. 1999, as *M. villosus*) suggested that this species might be distylous, but *Mitracarpus* is monomorphic so far as known.

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