## **5. TINOMISCIUM** Miers ex J. D. Hooker & Thomson, Fl. Ind. 1: 205. 1855.

## 大叶藤属 da ye teng shu

Vines. Petiole long; leaf blade often broad and large, not peltate, subleathery or membranous, adaxially finely and closely striate, palmately 3–5-veined. Inflorescences on old leafless stems, solitary or fasciculate, racemose. Male flowers: sepals 9–12, in 3 or 4 whorls, free, imbricate, outermost 3 minute and bracteolelike, inner 6 large, thinly leathery, margins usually membranous, narrowly oblong; petals 6, slightly shorter than sepals, submembranous, oblong or rotund, margins involute; stamens 6, opposite and subequal to petals, free, filaments thickened, swollen at apex, anthers introrse, dehiscing longitudinally to transversely; pistillodes usually 3. Female flowers: sepals and petals as in male; staminodes 6, lanceolate, apex rostrate; carpels 3, cylindrical-obovate, stigma peltate, many lobed. Drupes 3 or less, subovoid, flattened on both surfaces, abaxially prominent, adaxially smooth, style scar terminal; endocarp woody, straight, ellipsoid to subovoid, tuberculate-rugose; condyle inconspicuous. Seed obovoid; endosperm rich; cotyledons broad, flat, unequal, much longer than radicle.

About seven species: SE Asia; one species in China.

Molecular studies (Rosa et al., Amer. J. Bot. 94: 1425–1438. 2007) suggest that *Tinomiscium* is the sister group to the rest of the Menispermaceae.

**1. Tinomiscium petiolare** Miers ex J. D. Hooker & Thomson, Fl. Ind. 1: 205. 1855.

大叶藤 da ye teng

Tinomiscium tonkinense Gagnepain.

Woody vines. Stems with bark erosely fissured; branchlets and petioles longitudinally striate, exuding white latex when cut; young branches purplish tomentose. Petiole 5–12 cm, puberulent or glabrous; leaf blade broadly ovate,  $10-25(-29) \times 9-14(-20)$  cm, thinly leathery, base subtruncate or slightly cordate, margin entire or irregularly serrulate, apex acutely acuminate or sometimes cuspidate, palmately 3–5-veined, with 1–3 pairs of lateral veins, prominent abaxially. Inflorescences arising several together from protuberances on old stems, racemose, often pendulous, 5–12 cm, purplish ferruginous tomen-

tose or puberulent. Male flowers: sepals with outer whorl minute, inner whorl 6(-8), narrowly obovoid-elliptic to elliptic, 3-4.5(-5) mm, glabrous except margins papillose; petals 6, obovoid-elliptic to elliptic, 2-2.5(-3.5) mm, deeply emarginate; stamens 6, 1.4-2.5(-3) mm, connective prolonged, mucronate and incurved. Female flowers: sepals and petals as in male; staminodes linear-oblong, ca. 3 mm; carpels 3, stigma shortly many lobed. Pedicel 1-2 cm. Drupes at first green with white spots, later white to yellow (or orange), with white latex, compressed ellipsoidal, ca.  $4 \times 1.7-2 \times 1.3-1.5$  cm, base rounded with short but distinct stalk; endocarp compressed ellipsoidal,  $2-3.5 \times 1-2$  cm, surface obscurely to strongly rugose or rugulose, apex  $\pm$  acute. Cotyledons extremely unequal, larger one 2-parted, base auriculate.

Forests. S Guangxi, S and SE Yunnan [Indonesia, Malaysia (peninsular), New Guinea, Thailand, C and N Vietnam].

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