## 58. MYRIONEURON R. Brown ex Bentham & J. D. Hooker, Gen. Pl. 2: 69. 1873.

### 密脉木属 mi mai mu shu

### Chen Tao (陈涛); Charlotte M. Taylor

Small shrubs, subshrubs, or large herbs, unarmed, often succulent; bark often soft or spongy, usually grayish white. Raphides absent. Leaves opposite, apparently without domatia, sometimes with crisped margins; stipules persistent or deciduous, interpetiolar, generally triangular, often closely densely parallel- to palmately veined, entire or shortly bilobed. Inflorescences terminal and/or pseudoaxillary, laxly cymose or usually congested-cymose to subcapitate, several to many flowered, sessile to pedunculate, bracteate with bracts usually well developed, often densely veined to stipuliform, sometimes outermost (i.e., basalmost) 4 or 6 bracts shortly fused at base into an involucre. Flowers sessile to pedicellate, bisexual, distylous. Calyx limb 5-lobed; lobes often densely parallel-veined. Corolla white or yellow, tubular to salverform, villous in throat; lobes 5, valvate in bud. Stamens 5, inserted in corolla tube, included or perhaps partially exserted; filaments short; anthers apparently dorsifixed, included. Ovary 2-celled, ovules numerous in each cell on presumably axile placentas; stigma 2-lobed with lobes linear, included or shortly exserted. Fruit white, baccate, fleshy to rather dry, ovoid to globose, with calyx limb persistent; seeds numerous, small, angled, with endosperm fleshy; embryo small; testa areolate.

About 14 species: Bhutan, China, India, Nepal, Vietnam; four species (one endemic) in China.

H. S. Lo (in FRPS 71(1): 309. 1999) described the inflorescences as sometimes axillary, but this has not been noted elsewhere; the term here may be used to include the position separated elsewhere as "pseudoaxillary." Lo also reported that the anthers are sometimes partially exserted in long-styled flowers of *Myrioneuron faberi* and *M. effusum* (loc. cit.: 310, 313), which is a new condition not previously noted for the genus.

The number of pairs of lateral leaf veins described by H. S. Lo (loc. cit.: 310–313) for *Myrioneuron* species and used in part to distinguish species does not correspond to the secondary veins on specimens cited and apparently includes both secondary and intersecondary veins; thus, the counts disagree with those of Wright (Fl. Bhutan 2(2): 786. 1999, *M. nutans*) and the illustrations of Fu and Hong (Higher Pl. China 10: 577–578. 2004), which consider only the secondary veins as done by most Rubiaceae authors.

1a.	Corolla with tube 5–6 mm; calyx lobes 10–12 mm	3. M.	nutans
1b.	Corolla with tube 7.5–10 mm; calyx lobes 6–14 mm.		
	2a. Shrubs; leaves with secondary veins 15–25 pairs; calyx lobes 6–7 mm	1. <i>M</i> . 6	effusum

- 2b. Herbs, sometimes becoming suffrutescent; leaves with secondary veins 9–18 pairs; calyx lobes 6–14 mm.

# **1. Myrioneuron effusum** (Pitard) Merrill, J. Arnold Arbor. 23: 195. 1942.

#### 大叶密脉木 da ye mi mai mu

Myrioneuron nutans Wallich ex Kurz var. effusum Pitard in Lecomte, Fl. Indo-Chine 3: 192. 1923.

Shrubs, to 2 m tall; branches densely puberulent or often papillose to glabrous. Petiole 0.5-4 cm, densely puberulent; leaf blade in life adaxially dark green, abaxially pale white, drying papery, elliptic-oblong, oblanceolate, or obovate,  $13-25 \times 5.5-$ 14 cm, adaxially glabrous, abaxially densely puberulent at least on veins, base acute to cuneate, apex acute; secondary veins 15-23 pairs; stipules ovate to lanceolate, 1.5-2.2 cm, densely puberulent, distinctly palmately veined, acute to shortly bilobed. Inflorescences pseudoaxillary and/or infrequently terminal, congested-cymose, subglobose to ovoid, subsessile, 1.5-2 cm; bracts lanceolate or ovate, 8-10 mm, densely puberulent, densely longitudinally veined, acuminate. Flowers subsessile. Calyx puberulent to glabrous; hypanthium portion obconic, 1.5-3 mm; limb lobed to base; lobes lanceolate to narrowly triangular or linear, 6-7 mm. Corolla tubular; tube ca. 10 mm; lobes oblong-ovate, ca. 2.5 mm. Berries subglobose,  $3-4 \times 4-5$ mm, glabrescent. Fl. Jul-Aug, fr. Oct-Nov.

On rocks in ravines; 500-700 m. Guangxi (Longzhou) [N Viet-

nam].

2. Myrioneuron faberi Hemsley, J. Linn. Soc., Bot. 23: 380. 1888 ["faberii"].

#### 密脉木 mi mai mu

#### Myrioneuron oligoneuron Handel-Mazzetti.

Large to suffruticose herbs, 0.2-1 m tall; branches densely puberulent, shortly pilosulous, or tomentulose. Leaves sometimes crowded at upper part of branches; petiole 0.7-1(-2) cm, densely puberulent to tomentulose; blade drying papery and grayish green, pale abaxially, obovate, elliptic, or oblong-obovate, (10-)12-23 × 4.5-10 cm, adaxially glabrous, abaxially densely puberulent to glabrescent on lamina and densely puberulent to tomentulose along veins, base acute to obtuse, apex cuspidate or acute; secondary veins 9-15 pairs; stipules lanceolate-oblong to ovate or narrowly triangular, 6.5-15 mm, glabrous to densely puberulent, densely parallel-veined to palmately veined, acute to shortly bilobed. Inflorescences terminal, globose; peduncle 3-10 mm; branched portion subcapitate to congested-cymose, subglobose, 2-3.5 cm; bracts ovate to lanceolate or obovate, 8-20 mm, densely puberulent, densely parallel-veined to palmately veined, acute to acuminate. Flowers subsessile. Calyx puberulent to glabrous; hypanthium portion subglobose to obconic, 1.5-2 mm; limb divided to base; lobes narrowly triangular to linear, 6-12 mm, densely longitudinally veined. Corolla yellow, tubular, outside puberulent to glabrous; tube 9–10 mm; lobes triangular to ovate, 1.5–2 mm. Berries subglobose, ca. 3.5 mm in diam., glabrous to puberulent, with pedicels often elongating, to 8 mm. Fl. Aug, fr. Oct–Dec.

• Forests, often by streams; 500–1500 m. Guangxi, Guizhou, Hubei, Hunan, Sichuan, Yunnan.

This name was originally published as *"faberii"* and has been cited thus by several authors; however, current guidelines for orthography require correction to the form used here.

**3. Myrioneuron nutans** Wallich ex Kurz, Forest Fl. Burma 2: 55. 1877.

#### 垂花密脉木 chui hua mi mai mu

Small shrubs, ca. 1 m tall. Petiole 0.5-2 cm; leaf blade drying leathery and green, broadly elliptic or obovate,  $10-25(-35) \times 6-14(-18)$  cm, adaxially glabrous, abaxially puberulent at least on veins, base acute to attenuate, apex abruptly acuminate; secondary veins 11-20 pairs; stipules triangular-lanceolate, 10-20 mm. Inflorescences terminal or pseudoaxillary, globose, 2.5-6 cm in diam., congested-cymose or rarely laxly cymose; peduncle short; bracts ovate or lanceolate, 8-15 mm, acuminate. Calyx glabrous to scabridulous; limb lobed to base; lobes linear-lanceolate, 10-12 mm. Corolla white or yellow, tubular, outside puberulent; tube 5-6 mm; lobes ovate, ca. 1.8 mm. Berries fleshy to dry, 4-7 mm in diam., glabrescent. Fl. Mar.

Forests; ca. 700 m [to only ca. 300 m in Bhutan]. Xizang (Mêdog), Yunnan (Mengzi) [Bangladesh, Bhutan, N India].

## **4. Myrioneuron tonkinense** Pitard in Lecomte, Fl. Indo-Chine 3: 193. 1923.

#### 越南密脉木 yue nan mi mai mu

Herbs, sometimes suffruticose, to 1(-2) m tall; branches densely puberulent, papillose, or tomentulose. Petiole 0.8-3 cm, densely puberulent to tomentulose; leaf blade drying papery and grayish green, obovate, elliptic-oblong, or elliptic, 12–28  $\times$ 4-11 cm, adaxially glabrous, abaxially densely puberulent, base acute to cuneate, apex acute or rounded then abruptly acuminate; secondary veins 9-18 pairs; stipules ovate to oblong, 12-25 mm, densely puberulent, densely striate veined, acute or shortly 2-lobed. Inflorescences terminal and/or usually pseudoaxillary, subsessile, congested-cymose to subcapitate to shortly racemiform, subglobose to ovoid, 1-3 cm; bracts ovate or ovatelanceolate, 10-25 mm, densely puberulent, densely longitudinally veined, acute to acuminate. Flowers subsessile or with pedicels to 3 mm. Calyx densely puberulent; hypanthium portion subglobose to ovoid, ca. 2 mm; limb divided to base; lobes linear-subulate, 6-14 mm. Corolla yellow, tubular; tube 7.5-8 mm; lobes 2.5-3 mm. Berries subglobose, 3-4 mm in diam. Fl. Jun-Aug, fr. Oct-Dec.

Dense forests; below 100-1700 m. Guangdong, Guangxi, Hainan, Yunnan [N Vietnam].

H. S. Lo (in FRPS 71(1): 312. 1999) recognized two forms of this species: "f. *tonkinensis*" [sic!] and "f. *longipes* Lo." However, Lo failed to provide the latter name with a Latin description or diagnosis (*Vienna Code*, Art. 36.1) and an indication of a type (Art. 37.1); therefore, neither name was validly published.

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