

**90. BUTEA** Roxburgh ex Willdenow, Sp. Pl. 3: 857, 917. 1802, nom. cons.

紫矿属 *zi kuang shu*

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*Megalotropis* Griffith; *Meizotropis* Voigt; *Plaso* Adanson.

Trees, climbing to erect shrubs, or perennial herbs. Leaves pinnately 3-foliolate; stipules small to medium-sized, caducous. Flowers large, orange-red or red, densely clustered in axillary or terminal racemes or panicles; bracts and bracteoles small, caducous. Calyx campanulate; teeth short, obtusely triangular, upper 2 connate into a broad entire or emarginate lip. Corolla medium-sized to large, exserted; petals subequal in size; standard ovate or lanceolate, apex acute, recurved, not appendaged; wings falcate, adherent to keel; keel longest, incurved, apex acute, back connate into a ridge. Stamens diadelphous; anthers uniform. Ovary sessile or shortly stipitate, 2-ovuled; style elongated, incurved, glabrous; stigma small, terminal. Legumes oblong, compressed, apex rounded, with 1 seed at top, empty and not dehiscent in lower part, often with stipe at base. Seed obovate; hilum small, estrophiolate.

Four or five species: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam; three species (one endemic) in China.

*Meizotropis*, with two species, was recognized by Sanjappa (Bull. Bot. Surv. India 29: 199–225. 1989), as well as by Schrire (in Lewis et al., Legumes World, 408. 2005). A broader view of *Butea* is taken here, but the matter is in need of further study.

- 1a. Shrubs or perennial herbs, erect or scandent; leaflets 15–45 × 12–35 cm ..... 3. *B. buteiformis*
- 1b. Trees or climbing shrubs; leaflets 6–17 × 4–15 cm.
  - 2a. Leaflets glabrous adaxially, reticulate veins distinct; seed broadly reniform or reniform-orbicular,
    - ca. 2.7 cm, reddish brown; trees ..... 1. *B. monosperma*
  - 2b. Leaflets densely velutinous with whitish yellow hairs on both surfaces, much denser abaxially, reticulate veins indistinct, areoles obscure; seed reniform, 2–2.2 cm, blackish brown; climbing shrubs ..... 2. *B. braamiana*

**1. *Butea monosperma*** (Lamarck) Taubert in Engler & Prantl, Nat. Pflanzenfam. 3(3): 366. 1894.

Cambodia, India, Indonesia, Laos, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam].

紫矿 *zi kuang*

This species is one of the main host plants of lac insects. The red resin from the bark is used medicinally as an astringent.

*Erythrina monosperma* Lamarck, Encycl. 2: 391. 1786; *Butea frondosa* Roxburgh ex Willdenow, nom. illeg. superfl.

**2. *Butea braamiana*** Candolle, Prodr. 2: 415. 1825.

Trees, 10–20 m tall. Trunk to 30 cm d.b.h. Bark grayish black. Petiole ca. 10 cm, robust; stipels subulate, ca. 1.5 mm; petiolules robust, ca. 8 mm; leaflets unequal, thickly leathery, rough on both surfaces, puberulent along veins abaxially, glabrous adaxially, lateral veins 6 or 7 pairs, like midrib raised abaxially, reticulate veins distinct and with conspicuous areoles abaxially; terminal leaflet broadly obovate or suborbicular, 14–17 × 12–15 cm, base broadly cuneate, apex rounded or emarginate; lateral leaflets narrowly ovate or oblong, 11.5–16 × 8.5–10 cm, asymmetric, base rounded, apex obtuse or emarginate. Racemes or panicles axillary or at nodes of leafless branches; rachis, pedicels, and calyx outside densely brown or blackish brown velutinous. Calyx 1–1.2 cm, densely silvery gray on both surfaces or light brown pubescent inside. Corolla orange-red, becoming yellow later, ca. 3 × as long as calyx; standard narrowly ovate, recurved, 4–4.5 cm; wings narrowly falcate, ca. 4 cm, like keel with rounded auricles at base; keel broadly falcate, 5–5.5 cm, connate into an arcuate ridge, densely silvery gray velutinous. Anthers oblong. Ovary densely velutinous. Legumes 12–15 × 3.5–4 cm, adpressed silvery gray puberulent, apex rounded; stipe 12–15 mm. Seed reddish brown, broadly reniform or reniform-orbicular, compressed, ca. 2.7 × 3.3–3.6 cm. Fl. Mar–Apr.

绒毛紫矿 *rong mao zi kuang*

Woody climbing shrubs. Old branches grayish brown, glabrous; young branchlets blackish brown, velutinous, with whitish yellow hairs. Petiole 10–13 cm; stipels subulate, ca. 3 mm, hairy; petiolules ca. 5 mm, like petiole densely velutinous with whitish yellow hairs; leaflets obovate-rhomboid, 6–8 × 4–6.5 cm, densely velutinous with whitish yellow hairs on both surfaces, especially on margin and abaxially, lateral veins 6–8 pairs, conspicuous on both surfaces, reticulate veins indistinct, areoles obscure abaxially, base rounded or broadly cuneate, apex emarginate or not; terminal leaflet (immature) ca. 6 cm from lateral ones. Racemes few flowered. Calyx light green. Legumes (immature) oblong, slightly curved, very compressed, 14–

Forests, wet places, near roads, also cultivated. SW Guangxi (Ningming), S and SW Yunnan (Gengma, Xishuangbanna) [Bhutan,

17 × 3–4 cm, dorsal and ventral sutures densely velutinous with whitish yellow hairs; wing with reticulate veins, sparsely hairy; stipe ca. 1.5 cm, densely velutinous. Seed blackish brown, shiny, reniform, compressed, 2–2.2 × 3.3–3.5 cm. Fr. Jun–Jul.

- Yunnan (Xishuangbanna).

**3. *Butea buteiformis*** (Voigt) Grierson & D. G. Long, Notes Roy. Bot. Gard. Edinburgh 37: 346. 1979.

西藏紫矿 xi zang zi kuang

*Meizotropis buteiformis* Voigt, Hort. Suburb. Calcutt. 239. 1845 [“*buteaeformis*”]; *Butea minor* Buchanan-Hamilton ex Baker; *B. xizangensis* X. Y. Zhu & Y. F. Du; *Megalotropis buteiformis* (Voigt) Griffith.

Shrubs or perennial herbs, up to 5 m tall. Stems erect or scandent, angular, pubescent with brownish hairs. Petioles 10–20 cm; leaflets broadly ovate-elliptic, 15–45 × 12–35 cm, sericeous with brownish hairs abaxially, appressed pubescent adaxially, lateral veins 10–12 pairs, reticulate veins distinct abaxially, base rounded or truncate, apex acute. Racemes or panicles many flowered. Calyx 6–8 mm, pubescent with brownish hairs. Corolla orange-red; standard broadly elliptic, recurved, ca. 1.5 cm; wings narrowly ovate, falcate, ca. 1.3 cm; keel ovate, ca. 1.7 cm. Legumes (4.5–)6–10 × 2–3 cm, tomentose with brownish hairs.

Dry valley slopes, open grasslands; 1800–2000 m. Xizang [Bangladesh, Bhutan, India, Myanmar, Nepal].

