

## 18. Tribe ABREAE

相思子族 *xiang si zi zu*

Bao Bojian (包伯坚); Michael G. Gilbert

Shrubs or shrublets, often climbing. Leaves paripinnate; leaflets many paired; rachis terminated by a bristle; stipels absent. Racemes terminal or subterminal. Flowers fasciculate on rachis. Calyx truncate with short teeth. Corolla papilionaceous, claw of standard ± adnate to staminal sheath. Stamens 9; filaments connate into a sheath split above (adaxially); vexillary stamen absent; anthers uniform. Ovary with numerous ovules; style glabrous. Legumes compressed, 2-valved, subseptate but not breaking up into separate joints. Seeds subglobose or ellipsoid, shiny, sometimes brightly colored.

One genus and 17 species: one in SW Asia, two in tropical Asia, one in Africa and Asia, seven in Africa only, five in Madagascar, and one pan-tropical; two species in China.

## 78. ABRUS Adanson, Fam. Pl. 2: 327, 511. 1763.

相思子属 *xiang si zi shu*

Morphological characters and geographic distribution are the same as those of the tribe.

Apart from *Abrus precatorius*, the species are not well defined, and one author (Breteler, Blumea 10: 607–624. 1960) has suggested a considerable reduction in the number of species recognized. See, however, Verdcourt (Kew Bull. 24: 235–252. 1970) who is followed here.

- 1a. Seeds conspicuously glossy black and red, subglobose; legume 2–3.5 cm, apex emarginate below style ..... 1. *A. precatorius*  
1b. Seeds uniformly dark brown to almost black, compressed; legume (3–)5–6.5 cm, apex slightly acuminate ..... 2. *A. pulchellus*

**1. *Abrus precatorius*** Linnaeus, Syst. Nat., ed. 12, 2: 472. 1767.

相思子 *xiang si zi*

*Glycine abrus* Linnaeus, Sp. Pl. 2: 753. 1753.

Lianas. Stem slender, much branched, sparsely white strigose. Leaves paripinnate; leaflets 8–13-paired, opposite; petiolule short; blades suboblong, 1–2 × 0.4–0.8 cm, membranous, sparsely white strigose abaxially, glabrous adaxially, rounded at base, truncate and with mucro at apex. Racemes axillary, 3–8 cm. Flowers small, dense. Calyx campanulate, 4-toothed, white strigose. Corolla purple; standard with triangular claw; wings and keels narrower. Stamens 9. Ovary hairy. Legumes oblong, 2–3.5 × 0.5–1.5 cm, leathery, dehiscent, with 2–6 seeds. Seeds lustrous, black in lower part, red in upper part, subglobose. Fl. Mar–Jun, fr. Sep–Oct.

Hill forests. Guangdong, Guangxi, Taiwan, Yunnan [widespread in the tropics].

The hard and very colorful seeds are often used in necklaces. They are dangerously toxic if ingested when the seed coat is not intact (e.g., if drilled for a necklace).

**2. *Abrus pulchellus*** Wallich ex Thwaites, Enum. Pl. Zeyl. 91. 1859.

美丽相思子 *mei li xiang si zi*

Lianas, climbing. Stem slender, sparsely yellow strigose or villous. Leaves paripinnate, alternate; leaflets 6–10-paired, opposite; petiolule short; blades suboblong, oblong, or obovate-oblong, 0.5–3 × 0.3–1 cm, membranous, sparsely white strigose or densely white villous abaxially, glabrous or pilose adaxially, rounded or subcordate at base, truncate and with mucro at apex. Racemes axillary, 3–10 cm. Flowers dense, 3–9 mm. Calyx campanulate, 4-toothed, white strigose or densely gray villous. Corolla pink, purple, or purple-red. Stamens 9. Legumes ob-

long, (2–)5–6.5 × 0.8–1.5 cm, densely white hairy, dehiscent, with 4–12 seeds. Seeds black-brown or black, lustrous to slightly lustrous, elliptic or ovoid, compressed.

Forests, hill slopes; 200–3000 m. Fujian, Guangdong, Guangxi, Hainan, Hunan, Yunnan [Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam].

- 1a. Indumentum usually at least partly ferruginous, mostly erect, but often gray on leaves, or if indumentum gray then leaflets ca. 3 cm and legume 3.5–4.9 cm ..... 2b. subsp. *mollis*  
1b. Indumentum sparse and grayish, not ferruginous, adpressed (rarely petiole appearing brown but hairs always pale).  
2a. Leaflets 0.7–4 cm, base rounded; legume 3.2–9 cm ..... 2a. subsp. *pulchellus*  
2b. Leaflets mostly ca. 1 cm, base distinctly subcordate; legume 2–3.3 cm ..... 2c. subsp. *cantoniensis*

**2a. *Abrus pulchellus* subsp. *pulchellus*.**

美丽相思子(原亚种) *mei li xiang si zi (yuan ya zhong)*

Lianas, climbing. Stem sparsely yellow strigose. Leaflets suboblong, 0.7–4 × 0.4–1 cm, sparsely white strigose abaxially, glabrous adaxially, rounded at base, truncate and with mucro at apex. Flowers 6–8 mm. Calyx white strigose. Corolla pink or purple. Legumes 3.2–9 × 0.8–1.5 cm, densely white hairy, dehiscent, with 6–12 seeds. Seeds black-brown, lustrous, elliptic.

Valley forests; 400–3000 m. Guangxi, Yunnan [Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam].

**2b. *Abrus pulchellus* subsp. *mollis*** (Hance) Verdcourt, Kew Bull. 24: 248. 1970.

毛相思子 mao xiang si zi

*Abrus mollis* Hance, J. Bot. 9: 130. 1871.

Lianas; indumentum usually at least partly ferruginous, mostly erect. Stem sparsely yellow villous. Leaflets oblong, 1–3 × 0.5–1 cm, densely white villous abaxially, pilose adaxially, rounded at base, truncate and with mucro at apex. Rachis 2–4 cm, yellow villous. Flowers 3–9 mm, 4–6-fascicled at nodes. Calyx densely gray villous. Corolla pink or light purple. Legumes flat, 3–5(–6) × 0.8–1 cm, densely white villous, beaked at apex, with 4–9 seeds. Seeds black or dark brown, slightly lustrous, ovoid, flat. Fl. Aug, fr. Sep.

Forests at roadsides or in valleys; 200–1700 m. Fujian, Guangdong, Guangxi, Hainan [Cambodia, Indonesia, Laos, Malaysia, Thailand, Vietnam].

**2c. *Abrus pulchellus* subsp. *cantoniensis*** (Hance) Verdcourt, Kew Bull. 24: 248. 1970.

广州相思子 guang zhou xiang si zi

*Abrus cantoniensis* Hance, J. Bot. 6: 112. 1868.

Lianas, climbing, 1–2 m tall. Branches slender, smooth, white hairy, caducous when old. Leaflets oblong or obovate-oblong, 0.5–1.5 × 0.3–0.5 cm, strigose abaxially, pilose adaxially, distinctly subcordate at base, truncate or slightly retuse with mucro at apex. Flowers ca. 6 mm, fascicled at short rachis; pedicel short. Corolla purple-red or light purple. Legumes flat, 2–3.3 × ca. 1.3 cm, beaked at apex, sparsely white strigose, with 4 or 5 seeds. Seeds black-brown. Fl. Aug.

Forests, hill slopes; ca. 200 m. Guangdong, Guangxi, Hunan [Thailand, Vietnam].