## **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,  $1-2\times0.4-0.8$  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,  $2-3.5\times0.5-1.5$  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  $\times$  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 oblong,  $(2-)5-6.5 \times 0.8-1.5$  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

- 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*

#### 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,  $0.7\text{--}4 \times 0.4\text{--}1$  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  $3.2\text{--}9 \times 0.8\text{--}1.5$  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,  $1-3 \times 0.5-1$  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,  $3-5(-6) \times 0.8-1$  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– $1.5 \times 0.3$ –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– $3.3 \times ca$ . 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].