

5. QUISQUALIS Linnaeus, Sp. Pl., ed. 2, 1: 556. 1762.

使君子属 shi jun zi shu

Kleinia Crantz (1766), not Miller (1754); *Mekistus* Loureiro ex B. A. Gomes; *Sphalanthus* Jack.

Lianas woody. Leaves opposite or subopposite; petiole persistent and thornlike; leaf blade \pm elliptic, glabrous or hairy. Inflorescences terminal or axillary, simple or sometimes compound spikes. Calyx tube (1.7–)5–9 cm, \pm uniformly narrowly tubular except funnellform at apex, deciduous above ovary, hairy or subglabrous; lobes 5, deltoid or triangular-lanceolate, small, apex sometimes cuspidate. Petals 5, white or red, larger (often much more so) than calyx lobes. Stamens 10, not or scarcely exerted from calyx tube. Style partly adnate to inside of calyx tube (in Chinese species). Fruit fusiform to subglobose or ovoid, longitudinally 5-ridged or -winged, dry, leathery.

About 17 species: tropical Africa, tropical Asia; two species in China.

Jongkind (Bull. Mus. Natl. Hist. Nat., B, Adansonia 12: 275–280. 1991) proposed uniting *Quisqualis* with *Combretum* on the grounds that the two genera cannot be separated morphologically in a consistent manner. Tan et al. (loc. cit., see note under family heading) found *Quisqualis* and *Combretum* to be monophyletic sister taxa, but noted that their sampling (two species of each genus in five samples) was insufficient to examine problems of generic circumscription.

- 1a. Calyx tube 5–9 cm; petals 10–24 mm, opening white, later turning yellowish abaxially and reddish adaxially; inflorescence lax; petiole without an inflated joint near base 1. *Q. indica*
1b. Calyx tube 1.7–2.4 cm; petals ca. 3.5 mm, opening dark red or reddish; inflorescence dense; petiole with an inflated joint near base 2. *Q. conferta*

1. *Quisqualis indica* Linnaeus, Sp. Pl., ed. 2, 1: 556. 1762.

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Combretum indicum (Linnaeus) Jongkind; *Kleinia quadricolor* Crantz; *Mekistus sinensis* Loureiro ex B. A. Gomes; *Ouroparia enormis* Yamamoto; *Quisqualis glabra* N. L. Burman; *Q. grandiflora* Miquel; *Q. indica* var. *oxypetala* Kurz; *Q. indica* var. *villosa* (Roxburgh) C. B. Clarke; *Q. longiflora* C. Presl; *Q. loureiroi* G. Don; *Q. obovata* Schumacher & Thonning; *Q. pubescens* N. L. Burman; *Q. sinensis* Lindley; *Q. spinosa* Blanco; *Q. villosa* Roxburgh.

Lianas to 8 m tall. Branchlets brownish yellow pubescent. Petiole 5–9 mm, without an inflated joint near base, densely brown pilose when young; leaf blade mostly oblong-elliptic or elliptic, 5–18 \times 2.5–7 cm, abaxially sometimes brown pilose, adaxially glabrous except slightly brown pilose on midvein, finely white verruculose, rarely tomentose on both surfaces, base obtuse, apex acuminate to shortly caudate; lateral veins in 7 or 8 pairs. Inflorescences lax; bracts deciduous, filiform-linear to ovate, 3–12 mm, brown pilose. Flowers fragrant. Calyx tube 5–9 cm, yellow pilose; lobes deltoid, 2–3 mm, apex acute or shortly acuminate but not cuspidate. Petals opening white, later turning yellowish abaxially and reddish adaxially, obovate to oblanceolate, 10–24 \times 4–10 mm, apex rounded to obtuse. Fruit red when young, greenish black or brown when ripe, fusiform or narrowly ovoid, sharply 5-ridged, 2.7–4 \times 1.2–2.3 cm, glabrous, apex mucronate. Fl. Mar–Nov, fr. Jun–Nov.

Rain forests, low woods, thickets, hedges, mountains, dry hillsides, riversides, roadsides, wasteland, also cultivated; below 1500 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, S Jiangxi, Sichuan, Taiwan, Yunnan; cultivated in Zhejiang [Bangladesh, Cambodia, India (including Andaman Islands), Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Singapore, Sri Lanka, Thailand, Vietnam; coastal E Africa, Indian Ocean islands, Pacific islands; introduced to other parts of tropical Africa and Central and South America; widely cultivated and often naturalized in the tropics].

This species is cultivated in China as an ornamental. The seeds are used medicinally to kill intestinal parasites.

Quisqualis indica is variable in its indumentum and in the shape and size of its bracts. Most Chinese specimens with bracts still attached have linear-lanceolate to filiform-linear bracts. In this respect, these plants correspond with *Q. indica* var. *villosa*, as defined by Lecompte (in Aubréville, Fl. Cambodge Laos Vietnam 10: 22–31. 1969), who described var. *indica* as having ovate to lanceolate bracts. In FRPS (53(1):

17. 1984), var. *villosa* was said to have ovate leaf blades, tomentose on both surfaces (vs. elliptic or ovate, abaxially sometimes brown pilose, and adaxially glabrous in var. *indica*).

Four specimens from Guangdong (Deqing, Guangzhou, Nanhai, and Xingning), at least three of which are from cultivated plants, have a shorter calyx tube, 3–5 cm, and smaller petals, $8-9 \times 3-4.5$ mm, than is normal for *Quisqualis indica*. It is possible that these belong to *Q. indica* var. *pierrei* (Gagnepain) O. Lecompte (*Q. pierrei* Gagnepain), described from S Vietnam, which differs from var. *indica* in having smaller flowers of about these dimensions and, strikingly, in having fruit with 5 broad, papery wings 1–1.5 cm wide. However, because the specimens lack fruit, this determination is only tentative.

2. *Quisqualis conferta* (Jack) Exell, J. Bot. 69: 122. 1931.

小花使君子 xiao hua shi jun zi

Sphalanthus confertus Jack, Malayan Misc. 2(7): 55. 1822;
Quisqualis densiflora Wallich ex Miquel.

Branchlets brown pilose. Petiole 3–7 mm, with an inflated joint near base, brown pilose; leaf blade oblong, $5-13 \times 2-5.5$ cm, abaxially glabrous except sparsely pilose on midvein and with denser hairs in axils of lateral veins, adaxially glabrous and finely white verruculose, base rounded, apex acuminate. Inflorescences dense; bracts leaflike, lanceolate, $5-12 \times 2-4$ mm, brown pilose, becoming sparsely so. Calyx tube 1.7–2.4 cm, brown pilose; lobes triangular-lanceolate, ca. 2 mm, apex cuspidate, cusp filiform, 1–3 mm, often recurved. Petals opening dark red or reddish, oblong-elliptic, ca. 3.5×2 mm. Fruit glossy black when ripe, ovoid, conspicuously 5-ridged, ca. 2.5 cm, glabrous. Fl. Jan.

Dense forests, wetlands; 400–1100 m. Yunnan [Cambodia, Indonesia (Sumatra), Malaysia, Thailand, S Vietnam].

Records of *Quisqualis caudata* Craib from Yunnan (e.g., in FRPS 53(1): 17. 1984) are based on misidentifications of *Q. conferta*. *Quisqualis caudata* is endemic to Thailand and differs in having calyx lobes with an apical cusp not more than 1 mm and not recurved.

