
木通属 **mu tong shu**

Woody climbers, deciduous or subevergreen. Monoeocious. Stems twining. Winter bud outer scales numerous, persistent. Leaves alternate or clustered on short branches; petiole long; leaf blade palmately compound, 3–5(–7)-foliolate; leaflet margin entire, sinuate, or undulate. Inflorescences axillary, racemose, sometimes umbellate; bracts subtending inflorescences, persistent, scaly. Sepals usually 3(–6), purplish red or greenish white, subvalvate, reflexed at anthesis. Petals absent. Male flowers: borne apically on inflorescence. Stamens free; filaments very short; anthers incurved at anthesis. Pistillodes small. Female flowers: 1 or 2 basally on inflorescence, larger than male flowers. Carpels 3–9(–12), free, cylindric. Stigma capitate. Fruit fleshy follicles, dehiscent along abaxial suture. Seeds numerous, in several rows within pulp, slightly compressed; embryo small.

Five species: China, Japan, Korea; four species (two endemic) in China.


木通 **mu tong**

*Rajania quinata* Houttuyn, Nat. Hist. 11: 366. 1779; *Akebia micrantha* Nakai; *A. quinata* var. *polyphylla* Nakai; *A. quinata* var. *yiehii* W. C. Cheng.

Woody climbers, deciduous. Stems grayish brown when dry, longitudinally striate; branches slender, ca. 5 mm in diam.; lenticels orbicular. Petiole 7–10 cm; petiolules 0.8–1.5 cm, terminal one longest; leaflets 5, oblong to obovate-oblong, 4–9.5 × 2–4 cm, subleathery, abaxially pale green, base cuneate to obtuse, margin entire, apical rounded and usually emarginate and cuspidate; primary veins 3. Inflorescences clustered with leaves; bracts persistent, scaly. Racemes 1–3, fascicled, 12–18 cm, slender; peduncle 3.5–7 cm. Male flowers: 23–35(–43). Pedicel slender, ca. 5 mm; bracteoles linear, subulate. Sepals 3, reddish purple, elliptic-oblong to broadly elliptic, 4–4.5 × ca. 3 mm, reflexed at anthesis. Stamens ca. 3 mm; filaments less than 1 mm. Female flowers: 1 or 2, or absent. Pedicel 4.5–5 cm. Sepals 3, reddish purple, broadly elliptic to suborbicular, 1–1.2 × 0.8–1 cm. Stamens minute. Carpels 6–9, cylindric. Fruit solitary or paired, reddish purple at maturity, oblong, 6–7 × ca. 2 cm, longitudinally wrinkled when dry. Fl. Mar–Apr, fr. Aug.

- Evergreen forests, mountain slopes, 300–1600 m. Fujian, N Guangdong, S Hunan, C Taiwan.


长序木通 **chang xu mu tong**


Woody climbers, subevergreen. Stems grayish brown when dry, longitudinally striate; branches slender, ca. 5 mm in diam.; lenticels orbicular. Petiole 7–10 cm; petiolules 0.8–1.5 cm, terminal one longest; leaflets 5, oblong to obovate-oblong, 4–9.5 × 2–4 cm, subleathery, abaxially pale green, base cuneate to obtuse, margin entire, apical rounded and usually emarginate and cuspidate; primary veins 3. Inflorescences clustered with leaves; bracts persistent, scaly. Racemes 1–3, fascicled, 12–18 cm, slender; peduncle 3.5–7 cm. Male flowers: 23–35(–43). Pedicel slender, ca. 5 mm; bracteoles linear, subulate. Sepals 3, reddish purple, elliptic-oblong to broadly elliptic, 4–4.5 × ca. 3 mm, reflexed at anthesis. Stamens ca. 3 mm; filaments less than 1 mm. Female flowers: 1 or 2, or absent. Pedicel 4.5–5 cm. Sepals 3, reddish purple, broadly elliptic to suborbicular, 1–1.2 × 0.8–1 cm. Stamens minute. Carpels 6–9, cylindric. Fruit solitary or paired, reddish purple at maturity, oblong, 6–7 × ca. 2 cm, longitudinally wrinkled when dry. Fl. Mar–Apr, fr. Aug.

- Evergreen forests, mountain slopes, 300–1600 m. Fujian, N Guangdong, S Hunan, C Taiwan.


三叶木通 **san ye mu tong**

Woody climbers, deciduous or subevergreen. Stems grayish brown, verruculose, laxly lenticellate. Petiole 7–11 cm; lateral petiolules 6–12 mm; terminal petiolule 2–4 cm; leaflets 3–5, ovate, obovate-oblong, or broadly

Semideciduous forest margins, open forest along valleys, scrub on hillsides, by streams; 200–2100 m. Anhui, Fujian, SE Gansu, Guangdong, Guizhou, Henan, Hubei, Jiangsu, Jiangxi, S Shaanxi, Shandong, S Shanxi, Sichuan, Taiwan, Yunnan, Zhejiang [Japan]. The roots, stems, and fruits are used medicinally.

1a. Sepals of male flowers oblong, more than 2 × as long as stamens 3c. subsp. longisepala

1b. Sepals of male flowers elliptic to broadly elliptic, ± as long as stamens.

2a. Leaflets papery to subleathery, margin sinuate to shallowly lobed 3a. subsp. trifoliata

2b. Leaflets leathery, margin usually entire, very rarely irregularly sinuate 3b. subsp. australis

3a. Akebia trifoliata subsp. trifoliata

三叶木通 (原亚种) san ye mu tong (yuan ya zhong)


Leaflets 3, ovate to broadly ovate, 3–8 × 2–6 cm, papery to subleathery, base truncate to rounded, margin sinuate to shallowly lobed, apex obtuse to slightly emarginate and cuspidate. Racemes 6–16 cm. Male flowers: pedicels 2–5 mm. Sepals 3, pale purple, broadly elliptic to elliptic, 2.5–3 mm. Stamens 2.5–3 mm. Female flowers: sepals purplish brown, suborbicular, 1–1.2 × ca. 1 cm. Carpels 6–9. Fruit grayish white and slightly pale purple at maturity, oblong, 6–8 × 2–4 cm.

Open forest along valleys, scrub on hillsides; 200–2000 m. SE Gansu, S Henan, W Hubei, S Shaxian, Shandong, S Shanxi, Sichuan [Japan].


白木通 bai mu tong


Leaflets 3, ovate-oblong to ovate, 4–7 × 1.5–3(–5) cm, leathery, base rounded, broadly cuneate, truncate, or cordate, margin usually entire, very rarely irregularly sinuate, apex narrowly rounded, slightly emarginate, and cuspidate. Racemes axillary on short branches. Male flowers: sepals 3, purple, broadly elliptic to elliptic, 2–3 mm. Stamens red to purplish red when fresh, brown to pale brown when dry, ca. 2.5 mm. Female flowers: sepals dark purple, 9–12 × 7–10 mm. Carpels 5–7, purple. Fruit yellowish brown at maturity, 6–8 × 3–5 mm. Seeds blackish brown, ovoid. Fl. Apr–May, fr. Jun–Sep.

• Open forest along valleys, among shrubs on mountain slopes; 300–2100 m. Anhui, Fujian, Guangdong, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, S Shaanxi, S Shanxi, Sichuan, Taiwan, Yunnan, Zhejiang.


長萼三叶木通 chang e san ye mu tong

Stems with purplish brown bark; lenticels numerous. Leaves 8–16 cm; petiole 5–8.5 cm; leaflets 3(–5), ovate to ovate-oblong, 3–6 × 2–3.5 cm, leathery, base truncate to cuneate, margin subentire, apex obtuse; primary veins 3 from base. Racemes axillary, 6–8 cm, with 7 or 8 male and 2 female flowers. Male flowers: pedicel ca. 5 mm. Sepals 3 or 4, oblong, 0.9–1.2 cm. Stamens 2.5–3.5 mm. Female flowers: pedicel 1.5–3 cm. Sepals purplish black, sublinear to narrowly oblong, 2.2–2.7 cm. Carpels 4–6, cylindric, 4–6 mm. Fruit not seen. Fl. Apr.

• Semideciduous forest margins, hillsides, by streams; 600–800 m. SE Gansu (Wen Xian).


清水山木通 qing shui shan mu tong

Woody climbers, deciduous or subevergreen. Leaves herbaceous; petiole 3–5 cm; leaflets 3, petiolulate, ovate, 2–3 × 1–1.5 cm, glabrous, base round to broadly cuneate, margin subentire, apex emarginate and mucronate. Racemes axillary on short branches, ca. 10 cm; peduncle slender, 4–6 cm. Male flowers 10–20. Pedicel filiform, 2–3 mm. Bracts paleaceous, linear, subulate. Sepals 3, reflexed, elliptic, navicular, 1–2 mm, glabrous. Female flowers 1 or 2. Pedicel 1–1.3 cm, filiform. Sepals 3, black purple, obovate, navicular, 5–7 mm. Carpels 3 or 4. Fruit unknown. Fl. Apr–May.

• Open forests in mountains on limestone slopes; 1500–2400 m. Taiwan.