

20. ARTABOTRYS R. Brown, Bot. Reg. 5: t. 423. 1820.

鹰爪花属 ying zhua hua shu

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Climbing shrubs or woody lianas. Inflorescences 1- or few-flowered clusters; peduncle recurved, woody, persistent, forming a hook. Flowers bisexual, often fragrant. Torus flat or concave. Sepals 3, valvate, connate at base. Petals 6, in 2 whorls, pale yellowish, subequal, with each whorl valvate, base concave, apex connivent. Stamens many, outermost series sometimes forming staminodes; connectives apically dilated, apex truncate. Carpels 4 to many; ovules 2 per carpel, basal; stigmas ovoid, oblong, or clavate. Fruit apocarpous; monocarps fasciculate, sessile or shortly stipitate, ellipsoid-obovoid or globose, fleshy and berrylike. Seeds 1 or 2 per monocarp, without an aril.

About 100 species: Old World tropics and subtropics; eight species (four endemic, one introduced) in China.

Members of *Artabotrys* climb by means of the very distinctive, persistent, recurved, woody peduncles and pedicels, which hook onto the supporting vegetation.

- 1a. Monocarp apex long beaked; leaf blade base slightly oblique 1. *A. rhynchocarpus*
- 1b. Monocarp apex not beaked; leaf blade base symmetric.
 - 2a. Flowers many per peduncle; stamen connectives apically truncate 2. *A. multiflorus*
 - 2b. Flowers 1–3 per peduncle; stamen connectives apically triangular, semiorbicular, or subtruncate.
 - 3a. Outer petals 1–1.8 cm.
 - 4a. Leaf blade glabrous on both surfaces or only midrib abaxially puberulent; pedicel longer than peduncle 3. *A. hongkongensis*
 - 4b. Leaf blade abaxially densely tomentose or pubescent; pedicel shorter than peduncle.
 - 5a. Leaf blade adaxially shiny, secondary veins 10–12 on each side of midvein; outer petals ovate to broadly triangular 4. *A. fragrans*
 - 5b. Leaf blade adaxially slightly glaucous, secondary veins 8 on each side of midvein; outer petals narrowly oblong 5. *A. pilosus*
 - 3b. Outer petals 2–4.5 cm.
 - 6a. Leaf blade adaxially minutely punctate; outer petals oblong-ovate 6. *A. punctulatus*
 - 6b. Leaf blade adaxially not punctate; outer petals narrowly lanceolate or oblong-lanceolate.
 - 7a. Leaf blade secondary veins 7–9 on each side of midvein; outer petals ca. 2 × 0.2 cm 7. *A. hainanensis*
 - 7b. Leaf blade secondary veins 8–16 on each side of midvein; outer petals 3–4.5 × 0.9–1.6 cm 8. *A. hexapetalus*

1. *Artabotrys rhynchocarpus* C. Y. Wu ex S. H. Yuan, Acta Bot. Yunnan. 4: 261. 1982.

喙果鹰爪花 hui guo ying zhua hua

Shrubs to 10 m tall, climbing. Branchlets appressed pilose when young, glabrescent. Petiole 3–5 mm, appressed pilose; leaf blade oblong to oblong-lanceolate, 8–13 × 3–4 cm, papery, abaxially puberulent, adaxially glabrous, secondary veins 12–14 on each side of midvein and adaxially prominent, base cuneate, apex acuminate. Inflorescences leaf-opposed, 2–5-flowered; peduncle 0.8–1.5 cm, pilose. Pedicel 1.2–1.5 cm, pubescent. Sepals broadly ovate, 3–4 × 3–4 mm, both surfaces pilose. Petals ovate-oblong, ca. 1.5 × 0.6 cm, tawny pubescent. Stamens cuneate, ca. 1.5 mm; connectives apically subtruncate, glabrous. Monocarp stipes 5–7 mm; monocarps oblong, 4.5–5 × 1.5–1.7 cm, apex conspicuously beaked. Seeds 2 per monocarp, flat, ca. 3 × 1.2 cm. Fl. Aug–Sep, fr. Oct.

• Dense woodlands; ca. 1200 m. SE Yunnan.

2. *Artabotrys multiflorus* C. E. C. Fischer, Bull. Misc. Inform. Kew 1937: 437. 1937.

多花鹰爪花 duo hua ying zhua hua

Lianas. Branchlets dark brown, minutely puberulent when young, minutely lenticellate. Petiole 5–8 mm; leaf blade elliptic

to elliptic-oblong, 10–16.5 × 4–6.5 cm, appressed pubescent when young especially abaxially on midvein, glabrescent, midvein abaxially prominent, secondary veins 9–12 on each side of midvein, base narrow, apex apiculate to bluntly acuminate. Inflorescences with 2 fascicles, one apical and another slightly below it on outer side, many flowered; peduncle 1.5–2 cm, stout, sharply curved, appressed bristly. Pedicel 0.8–1.5 cm, rufous hispid. Sepals ovate-triangular, 3–4 mm, outside rufous pubescent, inside glabrous. Petals green to yellow, oblong to oblong-lanceolate, 1.8–2.5 × 0.6–0.7 cm, subequal, base deeply convex; inner petals slightly narrower and more deeply concave than outer petals, connivent over stamens and carpels, outside thinly pubescent but densely gray pubescent on basal concave part, inside glabrous. Stamens oblong-cuneate, ca. 1.5 mm; connectives apically truncate. Carpels 12–21, narrowly oblong to lanceolate-oblong, 1.3–1.5 mm, glabrous; styles oblong to narrowly clavate, 1.3–1.5 mm. Fruit not seen. Fl. May–Aug, fr. Jul–Oct.

Thickets on limestone; 800–1000 m. Guangdong, Guangxi, Guizhou, Yunnan [Myanmar].

3. *Artabotrys hongkongensis* Hance, J. Bot. 8: 71. 1870.

香港鹰爪花 xiang gang ying zhua hua

Shrubs, to 8 m tall, climbing. Branchlets hispid. Petiole 2–

5 mm, puberulent; leaf blade elliptic-oblong to oblong, 6–12 × 2.5–4 cm, leathery, glabrous or only midvein abaxially puberulent, adaxially lucid, secondary veins 8–10 on each side of midvein and adaxially prominent, base rounded and slightly oblique. Inflorescences 1-flowered. Pedicel slightly longer than hooked peduncle, puberulent. Sepals ovate-triangular, ca. 5 mm, glabrescent. Outer petals ovate-lanceolate, 1–1.8 cm, thickened, outside densely sericeous pubescent, base concave; inner petals basally concave. Stamens cuneate; connectives apically 3-angled, puberulent. Carpels ovate-oblong, glabrous; ovules 2 per carpel, basal; stigmas shortly clavate. Monocarps black when dry, ellipsoid, 2–4 × 1.5–3 cm, apex subrounded. Fl. Mar–May, fr. May–Aug.

Dense woodlands, thickets; 300–1500 m. Guangdong, Guangxi, Guizhou, Hainan, Hunan, Yunnan [Vietnam].

4. *Artabotrys fragrans* Jovet-Ast, Notul. Syst. (Paris) 9: 77. 1940.

香鹰爪花 xiang ying zhua hua

Lianas to 20 m. Branchlets pubescent, glabrescent. Petiole 5–8 mm, pubescent; leaf blade oblong to lanceolate-oblong, 13–17 × 5–6 cm, densely pubescent when young and sparsely puberulent with age, adaxially lucid and glabrous, secondary veins 10–12 on each side of midvein and adaxially prominent, base cuneate to obtuse, apex shortly acuminate to obtuse. Inflorescences 1–3-flowered; peduncle ca. 2 cm, glabrous. Pedicel 1–1.2 cm, pubescent. Sepals triangular, golden pubescent. Outer petals broadly ovate-triangular, ca. 1.4 × 0.9 cm, densely villous except for base, base concave; inner petals triangular, 1–1.2 cm, pubescent except for base, base concave. Stamen connectives apically semiorbicular. Carpels 4–7, ovoid, glabrous. Monocarps ellipsoid, ca. 4 × 2 cm, glabrous; epicarp smooth. Fl. Jul–Aug, fr. Sep–Oct.

Mixed woods; ca. 1000 m. Guangxi, Guizhou, S Yunnan [Vietnam].

The name *Artabotrys fragrans* was first published in 1938 (Fl. Indo-Chine Suppl. 1: 83) but not validly so.

5. *Artabotrys pilosus* Merrill & Chun, Sunyatsenia 2: 224. 1935.

毛叶鹰爪花 mao ye ying zhua hua

Shrubs to 5 m tall, climbing. Branches densely tomentose when young. Petiole ca. 2 mm, densely tomentose; leaf blade oblong to oblong-elliptic, 5–17 × 2–7.5 cm, papery, abaxially densely tomentose, adaxially glabrous and slightly glaucous, secondary veins ca. 8 on each side of midvein and adaxially flat to slightly prominent, base rounded, apex acuminate to obtuse. Inflorescences leaf-opposed or extra-axillary, usually 1-flowered; peduncle longer than pedicel, flat, densely villous when young, glabrescent. Pedicel 6–12 mm, densely pubescent. Sepals ovate, ca. 4 mm, outside pubescent. Petals greenish to yellowish, narrowly oblong, 1.5–1.7 cm, pubescent. Stamens cuneate; connectives apically subtruncate. Carpels ca. 8, glabrous. Monocarps dark brown, oblong-ellipsoid, 1.5–2.2 × ca. 1.5 cm, glabrous. Fl. Apr–Jul, fr. May–Dec.

• Mixed woods; 200–500 m. Guangdong, Hainan.

The flowers of *Artabotrys pilosus* are fragrant and are used as perfume; its bast fiber is used to make ropes.

6. *Artabotrys punctulatus* C. Y. Wu ex S. H. Yuan, Acta Bot. Yunnan. 4: 260. 1982.

点叶鹰爪花 dian ye ying zhua hua

Shrubs to 4 m tall, climbing. Branchlets puberulent when young. Petiole 5–7 mm, puberulent; leaf blade oblong-elliptic, 7–13.5 × 3–5.5 cm, papery, glabrous except for abaxially puberulent midvein, adaxially minutely punctate, secondary veins 12–14 on each side of midvein and adaxially prominent, base cuneate to broadly cuneate and oblique, apex acuminate to obtuse. Peduncle puberulent. Flowers 3–4 cm in diam. Pedicel 1.5–2 cm. Sepals broadly ovate-triangular, 5–7 mm, puberulent, basally slightly attenuate. Petals brownish green; outer petals oblong-ovate, ca. 2.5 cm, base concave; inner petals ca. 2 cm, concave and connivent, horizontally spreading from apical 1/3, basally attenuate. Stamens many, cuneate, ca. 1.5 mm; connectives apically subtruncate, glabrous. Carpels ca. 20, oblong, glabrous; stigmas clavate, longer than ovaries, pubescent. Monocarps fusiform, slightly flattened, 3.5–4 × 1.5–1.7 cm. Fl. Apr–Jun, fr. Sep–Nov.

• Open woods; ca. 1500 m. S Yunnan.

7. *Artabotrys hainanensis* R. E. Fries, Ark. Bot., n.s., 3: 41. 1955.

海南鹰爪花 hai nan ying zhua hua

Based on *Artabotrys stenopetalus* Merrill & Chun, Sunyatsenia 2: 226. 1935, not Engler (1899).

Shrubs to 4 m tall, climbing. Branchlets glabrous. Petiole 4–8 mm, glabrous; leaf blade oblong to oblong-elliptic, 7–15 × 3–6 cm, papery, glabrous except for abaxially hairy main veins, secondary veins 7–9 on each side of midvein and adaxially prominent, base rounded to broadly cuneate, apex acuminate to acute. Inflorescences leaf-opposed, usually 1-flowered. Pedicel 1.2–1.5 cm. Sepals ovate, 4–5 mm, sparsely pubescent. Petals yellowish white, narrowly lanceolate, ca. 2 × 0.2 cm, subequal, base slightly broad and concave. Stamens oblong, ca. 14 × 2 mm; connectives apically rounded to subtruncate. Carpels 15, slightly longer than stamens; stigmas shortly clavate. Monocarps ellipsoid, ca. 2.5 × 1.2 cm. Fl. May–Jul, fr. Jul–Oct.

• Densely wooded slopes; 200–500 m. Guangdong, Guangxi, Hainan.

8. *Artabotrys hexapetalus* (Linnaeus f.) Bhandari, Bailey 12: 149. 1965.

鹰爪花 ying zhua hua

Annona hexapetala Linnaeus f., Suppl. Pl. 270. 1782; *A. uncinata* Lamarck; *Artabotrys odoratissimus* R. Brown, nom. illeg. superfl.; *A. uncatas* (Loureiro) Baillon; *A. uncinatus* (Lamarck) Merrill; *Unona uncinata* (Lamarck) Dunal; *Uvaria esculenta* Roxburgh ex Rottler; *U. odoratissima* Roxburgh; *U. uncata* Loureiro.

Shrubs to 10 m tall, climbing. Branchlets glabrous or glabrescent. Petiole 4–8 mm; leaf blade oblong to broadly lanceo-

late, 6–16(–25) × 2.5–6(–8) cm, papery, abaxially glabrous or only midvein puberulent, adaxially glabrous, secondary veins 8–16 on each side of midvein and adaxially prominent, base cuneate to acute, apex acuminate to acute. Inflorescences 1- or 2-flowered. Flowers 2.5–3 cm in diam., fragrant. Sepals green, ovate, 5–8 mm, sparsely puberulent. Petals greenish to yellowish, oblong-lanceolate, 3–4.5 × 0.9–1.6 cm, outside basally densely pubescent, contracted nearly to base but basally expanded. Stamens oblong; connectives apically 3-angular. Carpels oblong, glabrous. Monocarps ovoid, 2.5–4 × ca. 2.5 cm, glabrous, apex conspicuously apiculate. Seeds pale brown, 1.5–2 cm, smooth. Fl. May–Aug, fr. May–Dec. $2n = 16$.

Widely cultivated, rarely naturalized; 100–300 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Jiangxi, Taiwan, Yunnan, Zhejiang [native to S India and Sri Lanka].

The flowers of *Artabotrys hexapetalus* are fragrant and are used as perfume and in tea; its fruit are used as medicine for scrofula.

