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6. DESMOS Loureiro, Fl. Cochinch. 1: 329 [*"Desmis"*], 352. 1790.

假鹰爪属 jia ying zhua shu

Li Bingtao (李秉滔 Li Ping-tao); Ng Kwok Wun (吴帼媛), Richard M. K. Saunders

Shrubs, erect or scandent, rarely treelets, indument of simple hairs. Petiole short; leaf blade venation arcuately looped near margin. Inflorescences solitary, axillary, superaxillary, or leaf-opposed, 1- or 2-flowered. Flowers bisexual. Sepals 3, valvate. Petals 6, in 2 whorls; each whorl valvate, subequal or outer whorl slightly larger than inner whorl; inner whorl basally constricted around reproductive organs to form enclosed floral chamber. Stamens many; connectives apically truncate or rounded; pollen inaperturate, in monads. Carpels many, free; ovary densely hairy; ovules 1–8 per carpel; stigmas oblong or ovoid, bent, with 1 U-shaped opening and a groove continued down adaxial side of carpel. Fruit apocarpous; monocarps many, shortly stipitate, fleshy, ellipsoid when 1-seeded or moniliform (rarely only slightly so) when more than 1-seeded. Seeds subglobose or ellipsoid.

About 25–30 species: tropical and subtropical Asia; five species (two endemic) in China.

1a. Outer petals significantly smaller than inner petals; sepals ca. 1 mm; multi-seeded monocarps only slightly moniliform.
  2a. Leaf blade secondary veins 10–14 on each side of midvein; monocarps hairy ..... 4. *D. yunnanensis*
  2b. Leaf blade secondary veins 7–11 on each side of midvein; monocarps glabrous ..... 5. *D. saccopetaloides*
1b. Outer petals slightly larger than or subequal to inner petals; sepals 4–11 mm; multi-seeded monocarps distinctly moniliform.
  3a. Young branches densely hairy; leaf blade abaxially with erect hairs ..... 1. *D. dumosus*
  3b. Young branches subglabrous to hairy; leaf blade abaxially with appressed hairs.
    4a. Leaf blade 15–28 × 5.5–8 cm, secondary veins 12–17 on each side of midvein; inflorescences to 4-flowered; fruit pedicel 6–8 cm ..... 2. *D. grandifolius*
    4b. Leaf blade 6–14 × 2–6.5 cm, secondary veins 7–12 on each side of midvein; inflorescences 1-flowered; fruit pedicel 2–6 cm ..... 3. *D. chinensis*

1. Desmos dumosus (Roxburgh) Safford, Bull. Torrey Bot. Club 39: 506. 1912.

毛叶假鹰爪 mao ye jia ying zhua

Unona dumosa Roxburgh, Fl. Ind. 2: 670. 1824.

Climbers to 4 m tall, woody. Branches densely hairy when young. Petiole 5–10 mm; leaf blade obovate-elliptic to oblong, 5–16 × 2–7 cm, membranous to thinly papery, abaxially densely erect hairy, secondary veins 9–15 on each side of midvein, base shallowly cordate to truncate, apex shortly acuminate to acute. Inflorescences extra-axillary or leaf-opposed, 1-flowered. Pedicel 1–3 cm. Flowers pendulous. Sepals ovate to lanceolate, 4–11 × 2.5–6.5 mm. Outer petals ovate to obovate, 4–6.5 × 1.5–3.5 cm; inner petals ovate to lanceolate, 3–4(–6.5) × 0.5–0.8(–2) cm. Stamen connectives apically truncate to rounded. Carpels many; stigmas clavate, apex 2-cleft. Fruiting pedicel 2–4 cm; monocarp stipes 4–7 mm; monocarps ellipsoid or moniliform, 0.8–5.5 × 0.5–0.8 cm, sparsely to densely hairy. Fl. Apr–Aug, fr. Jul–Apr.

Open forests, thickets; 500–1700 m. Guangxi, Guizhou, S Yunnan [Bhutan, India, Laos, Singapore, Thailand, Vietnam].

2. Desmos grandifolius (Finet & Gagnepain) C. Y. Wu ex P. T. Li, Acta Phytotax. Sin. 14(1): 104. 1976.

大叶假鹰爪 da ye jia ying zhua

Unona desmos Dunal var. *grandifolia* Finet & Gagnepain, Bull. Soc. Bot. France 53(Mém. 4): 81. 1906; *Desmos cochinchinensis* Loureiro var. *grandifolius* (Finet & Gagnepain) Jovet-Ast ["Ast"].

Climbers to 5 m tall, woody. Branches subglabrous to hairy when young. Petiole 5–10 mm; leaf blade oblong, 15–28 × 5.5–8 cm, papery to thinly leathery, abaxially sparsely to densely appressed hairy, secondary veins 12–17 on each side of midvein and adaxially flattened, base shallowly cordate to truncate, apex shortly acuminate. Inflorescences fasciculate, (1–)4-flowered. Flowers pendulous. Pedicel 2.5–8 cm, puberulent, glabrescent; bracteoles near pedicel base, ovate, ca. 2.5 mm, abaxially puberulent, adaxially sparsely puberulent. Sepals ovate, 4–10 × 4–7 mm. Outer petals elliptic to lanceolate, 3.5–6 × 1.5–3 cm; inner petals lanceolate, 3–5 × 0.6–1 cm, puberulent on both surfaces. Anthers oblong, ca. 1.5 mm; connectives apically truncate to rounded. Carpels ca. 15; stigmas clavate, apex 2-cleft. Fruiting pedicel 6–8 cm; monocarp stipes ca. 1.6 cm; monocarps ellipsoid or moniliform, 1–5 × ca. 0.6 cm, hairy. Fl. Mar–Apr, fr. May–Sep.

Dense forests or thickets in valleys; 100–500 m. Guangxi, S Yunnan [Vietnam].

3. Desmos chinensis Loureiro, Fl. Cochinch. 1: 352. 1790.

假鹰爪 jia ying zhua

Artabotrys esquirolii H. Léveillé; *Unona chinensis* (Loureiro) Candolle; *U. discolor* Vahl.

Climbers to 4 m tall, woody. Branches stout, sparsely hairy when young, with raised grayish white lenticels. Petiole 3–8 mm; leaf blade oblong to elliptic, rarely broadly ovate, 6–14 × 2–6.5 cm, membranous to thinly papery, abaxially glaucous and sparsely appressed hairy, adaxially glossy, secondary veins 7–12 on each side of midvein, base rounded to slightly oblique,

apex acute to acuminate. Inflorescences superaxillary or leaf-opposed, 1-flowered. Flowers 3–6 cm wide, pendulous. Pedicel 2–6.5 cm. Sepals ovate to lanceolate, 4–10 × 2–4.5 mm. Outer petals oblong to oblong-lanceolate, 3–6.5 × 1–2 cm; inner petals lanceolate, 4–7 × 1–2 cm. Stamen connectives apically truncate to rounded. Carpels 25–35; stigmas clavate, apex 2-cleft. Fruiting pedicel 2–6 cm; monocarp stipes 4–14 mm; monocarps ellipsoid or moniliform, 0.8–6 cm × 4–6 mm, with 2–6 joints; joints yellowish brown, subglobose, ca. 7 × 6 mm, sparsely hairy, apex of terminal obtuse to shortly rostrate. Fl. Apr–Oct, fr. Jun–Dec. 2*n* = 20.

Wastelands and thickets in valleys; 100–1500 m. Guangdong, Guangxi, S Guizhou, Hainan, SE Yunnan [Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Nepal, Philippines, Thailand, Vietnam].

The bast fibers of *Desmos chinensis* are used for cordage; the roots and leaves are used medicinally; and the leaves are used in brewing liquor in Hainan.

4. Desmos yunnanensis (Hu) P. T. Li, Fl. Reipubl. Popularis Sin. 30(2): 51. 1979.
云南假鹰爪 yun nan jia ying zhua

Phaeanthus yunnanensis Hu, Bull. Fan Mem. Inst. Biol. 10: 125. 1940; *Dasymaschalon yunnanense* (Hu) Bân.

Climbers, to 6 m tall, woody. Branches densely hairy when young. Petiole 3–8 mm; leaf blade oblong to obovate-oblong, 10–16 × 3.5–6.8 cm, membranous to thinly papery, abaxially appressed hairy, secondary veins 10–14 on each side of midvein and adaxially elevated, base rounded, apex acuminate. Inflorescences axillary, 1-flowered. Pedicel to 2.5 cm. Sepals broadly ovate, ca. 1 mm. Outer petals ovate, ca. 3 mm; inner petals ovate to obovate, ca. 2.8 × 2 cm, outside densely puberulent, inside sparsely puberulent. Stamen oblong, ca. 2 mm; connectives apically truncate. Carpels ca. 13, oblong, ca. 2 mm, glabrous, very sparsely hairy, or pilose; ovules 2–5 per carpel; stigmas globose. Monocarp stipes ca. 1 cm; monocarps slightly moniliform, to 3.5 × 0.5 cm, with 2 or 3 joints; joints cylindric to ellipsoid, pilosulose. Fl. Oct, fr. Aug.

● Mixed forests; 1000–1400 m. S Yunnan (Xishuangbanna).

The taxonomic placement of this species within *Desmos* is questionable and requires further research.

5. Desmos saccopetaloides (W. T. Wang) P. T. Li, Guihaia 13: 314. 1993.

亮花假鹰爪 liang hua jia ying zhua

Phaeanthus saccopetaloides W. T. Wang, Acta Phytotax. Sin. 6: 199. 1957.

Trees or woody climbers, to 6 m tall. Branches appressed ferruginous pubescent when young, glabrescent. Petiole 3.5–5 mm; leaf blade elliptic, oblong, or ovate-oblong, 5.5–13.5 × 2–4.5 cm, membranous, abaxially sparsely hairy but glabrescent, adaxially glabrous except for puberulent midvein, secondary veins 7–11 on each side of midvein, base cuneate, apex acuminate. Inflorescences leaf-opposed, 1-flowered. Pedicel 2–2.2 cm. Sepals ovate-triangular, ca. 1 × 1 mm. Outer petals ovate-triangular, ca. 4 mm; inner petals ovate-oblong to lanceolate, 2.7–3.5 × 1–1.3 cm, outside pubescent, inside densely pubescent. Stamen connectives apically truncate. Carpels ca. 12, ca. 2.2 mm, densely tomentose; ovules ca. 8 per carpel; stigmas sessile, globose. Monocarp stipes 4–6 mm; monocarps slightly moniliform, 1.8–2.7 × 1–1.2 cm, with 3–5 joints, glabrous. Fl. Aug–Sep, fr. Oct–Nov.

● Forested slopes; 1200–2300 m. S Yunnan (Xishuangbanna).

The taxonomic placement of this species within *Desmos* is questionable and requires further research.

Fl. China 19: 681–682. 2011.