

7. **DASYMASCHALON** (J. D. Hooker & Thomson) Dalla Torre & Harms,  
Gen. Siphon. 174. 1901.

皂帽花属 *zao mao hua shu*

Li Bingtao (李秉滔 *Li Ping-tao*); Wang Jing (王静), Richard M. K. Saunders

*Unona* sect. *Dasymaschalon* J. D. Hooker & Thomson, Fl. Ind. 1: 134. 1855.

Small trees [rarely climbers], indument of simple hairs. Petiole short; leaf blade venation arcuately looped near margin. Inflorescences axillary, 1-flowered. Flowers bisexual. Sepals 3, valvate. Petals (2 or)3, in 1 whorl alternate with sepals, valvate, apically connivent to form a mitriform dome (floral chamber) over reproductive organs and often with very small basal apertures between petals. Stamens many; connectives apically truncate or apiculate; pollen inaperturate, in monads. Carpels many, free; ovary densely hairy; ovules 1 to many per carpel. Fruit apocarpous; monocarpis stipitate, ellipsoid when 1-seeded or moniliform when more than 1-seeded, fleshy, with a terminal apiculus. Seeds 1–6 per monocarp, globose or ellipsoid.

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

*Dasymaschalon* was included within *Desmos* in FRPS (30(2): 45–53. 1979) but is supported by molecular studies and is easily distinguished morphologically by the absence of an inner whorl of petals (J. Wang et al., Syst. Bot. 34: 252–265. 2009).

- 1a. Leaf blade midvein adaxially hairy; petiole densely hairy; sepals ovate, 7–16 × 4–9 mm; fruiting pedicel densely hairy ..... 1. *D. trichophorum*
- 1b. Leaf blade midvein adaxially glabrous; petiole glabrous or sparsely hairy; sepals triangular, 1–4 × 1.5–4 mm; fruiting pedicel glabrous or sparsely hairy.
  - 2a. Leaf blade 6–8.5 cm; petiole 2.3–3.3 mm; stamen connectives apically apiculate; pollen verrucate; monocarp stipes 2.5–3 mm; seeds 5–6 mm ..... 2. *D. robinsonii*
  - 2b. Leaf blade 10.5–21.5 cm; petiole 4.4–11 mm; stamen connectives apically truncate to rounded; pollen echinate; monocarp stipes 4–18 mm; seeds 6.5–24 mm.
    - 3a. Leaf blade base slightly cordate; floral chamber ca. 20% of petal length ..... 3. *D. glaucum*
    - 3b. Leaf blade base rounded or slightly attenuate; floral chamber 50%–90% of petal length.
      - 4a. Petiole glabrous; petals ca. 7 cm; monocarpis 8.5–10 mm wide; monocarp stipes ca. 1.8 cm ..... 4. *D. tibetense*
      - 4b. Petiole sparsely hairy; petals 2–4.5 cm; monocarpis 4.5–8 mm wide; monocarp stipes 0.6–1.3 cm.
        - 5a. Floral chamber ca. 50% of petal length; monocarpis 1.1–2 cm; seeds globose, ca. 1.3 × as long as wide ..... 5. *D. rostratum*
        - 5b. Floral chamber ca. 90% of petal length; monocarpis 3–5 cm; seed ellipsoid, 3.5–6 × as long as wide ..... 6. *D. sootepense*

1. **Dasymaschalon trichophorum** Merrill, Lingnan Sci. J. 6: 326. 1930.

皂帽花 *zao mao hua*

Trees to 3.5 m tall. Branches very densely hairy when young. Petiole 2.5–5.5 mm, densely hairy; leaf blade elliptic to obovate, 7–15 × (2.5–)4–8 cm, papery, abaxially glaucous and sparsely to densely hairy, adaxially glabrous or sparsely hairy, midvein hairy and abaxially more densely so, secondary veins 10–14 on each side of midvein and adaxially impressed, base rounded to shallowly cordate, apex acute. Flowers axillary or terminal on young growth. Pedicel 1–2 cm, densely hairy. Sepals 7–16 × 4–9 mm. Petals purplish red, triangular to ovate, 1.6–3 × 0.7–1 cm, papery, not twisted, outside densely hairy; floral chamber 4–6.5 mm, 20%–30% of petal length. Stamens 40–70 per flower; connectives apically apiculate; pollen echinate. Carpels 15–25, hispid; stigmas sparsely papillate. Fruiting pedicel 1–2.4 cm, densely hairy; monocarp stipes 3.5–6.5 mm; monocarpis dark purple, subglobose when 1-seeded or moniliform when more than 1-seeded, 8.5–13 × 2.7–5.5 mm, with grayish white bristles, glabrescent, terminal apiculus 0.2–0.8 mm; joints 3–8, subglobose, 5–6 × ca. 5 mm, constrictions 1.2–

2.3 mm wide, 25%–35% of monocarp width. Seeds 3–8 per monocarp, subglobose, 5.2–6 × 4.8–5 mm. Fl. Apr–Jul, fr. Jul–Dec.

• Sparsely forested slopes on sandy soil; below 100 m. Guangdong, Guangxi, Hainan.

Specimens of *Dasymaschalon trichophorum* have previously been misidentified as *D. macrocalyx* Finet & Gagnepain (*Desmos macrocalyx* (Finet & Gagnepain) P. T. Li), which does not occur in China.

2. **Dasymaschalon robinsonii** Jovet-Ast, Notul. Syst. (Paris) 9: 84. 1940.

钝叶假鹰爪 *dun ye jia ying zhua*

*Desmos robinsonii* (Jovet-Ast) P. T. Li.

Trees to 2 m tall. Branches sparsely hispid when young, glabrescent. Petiole 2.3–3.3 mm, sparsely hairy; leaf blade elliptic, 4–10 × 1.5–3.5 cm, thinly leathery, both surfaces glabrous, abaxially glaucous, midvein abaxially very sparsely hairy and adaxially glabrous, secondary veins 7–9(–11) on each side of midvein and adaxially impressed, base rounded to slightly cordate, apex acute, obtuse, or subrounded. Flowers axillary or subterminal on young growth. Pedicel ca. 4.5(–11) mm, very

sparsely hairy. Sepals 2.7–3.7 × 2.2–2.7 mm. Petals triangular, 2.3–2.6 × ca. 0.6 cm, leathery, not twisted, outside very sparsely hairy; floral chamber ca. 1.2 cm, ca. 50% of petal length. Stamens ca. 60; connectives apically apiculate; pollen verrucate. Carpels ca. 12; stigmas densely papillate. Fruiting pedicel 6–8 mm, very sparsely hairy; monocarp stipes 2.5–3 mm; monocarps moniliform, with 3–5 subglobose joints, glabrous, ca. 4.5 mm wide, constrictions 2.5–2.9 mm wide, terminal apiculus ca. 0.8 mm. Seeds 3–5 per monocarp, subglobose, 5.3–5.8 × 4.4–4.9 mm. Fl. Apr–Jun, fr. Jun–Oct.

Open forests on limestone; ca. 600 m. Guizhou (Libo) [Vietnam].

The name *Dasymaschalon robinsonii* was first published in 1938 (Fl. Indo-Chine, Suppl. 1: 115) but not validly so.

**3. *Dasymaschalon glaucum* Merrill & Chun, Sunyatsenia 2: 227. 1935.**

白叶皂帽花 bai ye zao mao hua

*Dasymaschalon rostratum* Merrill & Chun var. *glaucum* (Merrill & Chun) Bán.

Trees to 8 m tall. Branches glabrous or hairy when young. Petiole 4.5–10 mm, sparsely hairy; leaf blade elliptic to obovate, 10.5–21 × 4–8 cm, leathery to subleathery, both surfaces glabrous, abaxially glaucous, midvein abaxially glabrous and adaxially sparsely hairy, secondary veins 8–15 on each side of midvein and flush or adaxially slightly impressed, base slightly cordate, apex acuminate. Flowers on young growth. Pedicel 1.7–1.9 cm, very sparsely hairy. Sepals 2.5–3 × 2.5–3 mm. Petals purplish red, ovate, 2.6–4.2 × 0.8–1 cm, leathery, spirally twisted, outside densely hairy; floral chamber ca. 6 mm, ca. 20% of petal length. Stamens many; connectives apically truncate to rounded; pollen echinate. Carpels many; stigmas with sparse hairs. Fruiting pedicel 0.7–5.5 cm, glabrous or sparsely hairy; monocarp stipes 4–15 mm; monocarps red to brown, ellipsoid when 1-seeded or moniliform when more than 1-seeded, 1.6–5.5 cm × 5–8 mm, terminal apiculus 0.3–4 mm; constrictions 1.2–3.5 mm wide. Seeds 1–6 per monocarp, ellipsoid, 6.5–13 × 4.8–7 mm. Fl. Aug–Oct, fr. Apr–Feb.

Forested slopes on limestone or sandstone; 200–2400 m. Guangxi, Hainan [Laos, Thailand, Vietnam].

**4. *Dasymaschalon tibetense* X. L. Hou, Nordic J. Bot. 23: 276. 2005.**

西藏皂帽花 xi zang zao mao hua

Trees to 5 m tall. Branches glabrous or hairy when young. Petiole 0.9–1.1 cm, glabrous; leaf blade oblong, 13.5–20 × 4.5–5.5 cm, papery, both surfaces glabrous, abaxially glaucous, midvein glabrous on both surfaces, secondary veins ca. 12 on each side of midvein and adaxially flush, base slightly cuneate, apex acuminate. Flowers on young growth. Pedicel 1.2–1.5 cm, sparsely hairy. Sepals ca. 1.5 × 1.5 mm. Petals triangular, ca. 7 × 1.2 cm, leathery, not twisted, outside sparsely hairy; floral chamber ca. 5.5 mm, ca. 80% of petal length. Stamens ca. 100; connectives apically rounded; pollen echinate. Carpels not seen. Fruiting pedicel 1–2.3 cm, glabrous; monocarp stipes ca. 1.8 cm; monocarps ellipsoid when 1-seeded or moniliform when

more than 1-seeded, ca. 2.1 × 1 cm, terminal apiculus ca. 0.2 mm; constrictions ca. 6 mm wide. Seeds 1 or 2 per monocarp, ellipsoid, 16–19 × ca. 10 mm. Fl. Mar–Jul, fr. Jun–Aug.

• Semi-evergreen subtropical forests; 500–1300 m. SE Xizang.

**5. *Dasymaschalon rostratum* Merrill & Chun, Sunyatsenia 2: 8. 1934.**

喙果皂帽花 hui guo zao mao hua

*Desmos rostratus* (Merrill & Chun) P. T. Li.

Trees to 4 m tall. Branches sparsely hairy when young. Petiole 5–10 mm, sparsely hairy; leaf blade elliptic to oblong, 13–21.5 × 3.5–7.5 cm, papery, both surfaces glabrous or very sparsely hairy, abaxially glaucous, midvein abaxially sparsely hairy and adaxially glabrous, secondary veins 10–16 on each side of midvein and adaxially flush, base rounded to slightly attenuate, apex acute to acuminate. Flowers on young growth. Pedicel 1.2–4 cm, sparsely hairy. Sepals 2–3.5 × 1.5–3.5 mm. Petals ovate, 2–4 × 0.7–1.2 cm, leathery, generally not twisted, outside densely hairy; floral chamber 1–2 cm, ca. 50% of petal length. Stamens ca. 120; connectives apically truncate; pollen echinate. Carpels ca. 10; stigmas glabrous. Fruiting pedicel 2–5 cm, very sparsely hairy; monocarp stipes 6–13 mm; monocarps orangish red, subglobose when 1-seeded or moniliform when more than 1-seeded, 1.1–2 × 0.6–0.8 cm, terminal apiculus 2–4 mm; constrictions 2–3 mm wide. Seeds 1 or 2 per monocarp, subglobose, 8–9 × 6–7 mm. Fl. Apr–Oct, fr. Jul–Dec.

Sparsely forested slopes; 300–1000 m. ?Fujian, Guangdong, Guangxi, Hainan, SE Xizang, S Yunnan [Vietnam].

*Dasymaschalon rostratum* has been reported from Fujian (X. L. Hou & S. J. Li, J. Trop. Subtrop. Bot. 11: 171–173. 2003), but two of us (Wang and Saunders) believe the identity of this report is suspect and needs to be confirmed.

**6. *Dasymaschalon sootepense* Craib, Bull. Misc. Inform. Kew 1912: 144. 1912.**

黄花皂帽花 huang hua zao mao hua

*Desmos sootepensis* (Craib) J. F. Maxwell.

Trees to 10 m tall. Branchlets pilose, glabrous or glabrescent with age. Petiole 5–9 mm, sparsely hairy; leaf blade elliptic, 10–18 × 3–7 cm, papery, abaxially glaucous and very sparsely hairy, adaxially glabrous or very sparsely hairy, midvein abaxially sparsely hairy and adaxially glabrous, secondary veins 9–12(–18) on each side of midvein and flush or adaxially impressed, base rounded to very slightly attenuate, apex acuminate. Flowers on young growth. Pedicel 1–3 cm, sparsely hairy, bracteolate at base. Sepals broadly ovate, 1–2.5(–3) × 2.2–2.6(–3) mm. Petals yellow, ovate, 2.5–4.5 × 1.1–1.3(–2) mm, papery, not twisted, outside sparsely hairy; floral chamber to 3.7 mm, ca. 90% of petal length. Stamens ca. 140; connectives apically truncate; pollen echinate. Carpels ca. 20, oblong, ca. 3 mm; ovules 2–7 per carpel; stigmas glabrous or sparsely hairy. Fruiting pedicel 1.5–3 cm, glabrous or sparsely hairy; monocarp stipes 6–12 mm; monocarps red, ellipsoid when 1-seeded or moniliform when more than 1-seeded, 3–6 × 0.4–0.7 cm, terminal apiculus 1.5–2.5 mm; constrictions 2–2.5 mm wide. Seeds 1–4 per monocarp, ellipsoid, 17–24 × 4–5 mm. Fl.

Fl. China 19: 682–684. 2011.

Apr–Jul, fr. Jun–Sep.

Evergreen broad-leaved forests on rocky/sandy alluvium; 600–1300 m. S Yunnan [N Thailand].

Fl. China 19: 682–684. 2011.