

9. ANCYLOSTEMON Craib, Notes Roy. Bot. Gard. Edinburgh 11: 233. 1919.

Ö±°êÜÄìÊô zhi ban ju tai shu

Herbs, perennial, epipetric or rarely terrestrial, rhizomatous, stemless. Leaves many, basal; leaf blade puberulent to villous, rarely glabrescent, base cuneate to subcordate. Inflorescences lax, axillary, 1–10-flowered cymes; bracts 2, opposite. Calyx actinomorphic, 5-sect from base to 5-lobed from above middle; segments equal to subequal. Corolla orange to yellow or white, rarely pink, zygomorphic, inside glabrous to puberulent, rarely pilose near base; tube narrowly funnelform to cylindric, slightly gibbous abaxially, longer than limb, 3–8 mm in diam.; limb 2-lipped to slightly 2-lipped; adaxial lip 2-lobed, emarginate, or rarely undivided, shorter than abaxial lip; abaxial lip 3-sect from base, lobes equal or central longer than laterals, apex rounded or rarely acute. Stamens 4, adnate to corolla tube above or rarely below middle, included or rarely exerted; anthers basifixed, coherent in pairs, thecae divergent, not confluent, dehiscing longitudinally; connective not projecting; staminode 1, adnate to adaxial side of corolla tube. Disc ringlike or rarely cupular. Ovary narrowly oblong, 1-loculed; placentas 2, parietal, projecting inward, 2-cleft. Stigmas 2, equal, 2-lipped, undivided. Capsule straight in relation to pedicel, oblong lanceolate to oblanceolate, much longer than calyx, dehiscing loculicidally to base; valves 2, straight, not twisted. Seeds unappendaged.

- Twelve species: endemic to China.

Ancylostemon flabellatus C. Y. Wu ex H. W. Li (Bull. Bot. Res., Harbin 3(2): 16. 8. 1983) is not included in the treatment because it is known only from fruiting specimens and cannot be definitively placed in Pan's classification (Fl. Reipubl. Popularis Sin. 69: 190–203. 1990). Its placement in *Ancylostemon* is uncertain since other genera (e.g., *Tremacron*, *Isometrum*, and *Oreocharis*) are virtually indistinguishable using vegetative or fruit characters.

- 1a. Calyx 5-sect from base or near base, tube to 1 mm.
 - 2a. Leaf blade adaxially with only 1 kind of hairs, white puberulent or sparsely brown villous, often glabrescent; corolla 1.1–2 cm.
 - 3a. Leaf blade 1.1–4.4 × 0.7–1.8 cm; lateral veins 3–5 on each side of midrib; peduncle 3–8 cm; bracts 2–4 mm, glabrous to sparsely villous 1. *A. humilis*
 - 3b. Leaf blade 3–12 × 1–3.2 cm; lateral veins 7 or 8 on each side of midrib; peduncle 12–27 cm; bracts 6–18 mm, brownish pannose 2. *A. notochlaenus*
 - 2b. Leaf blade adaxially with at least 2 kinds of hairs, both villous and puberulent to pubescent or villous; corolla 1.5–3 cm.
 - 4a. Corolla pink; leaf blade margin serrate, base usually oblique, cuneate; peduncle sparsely puberulent; bracts apparently absent 4. *A. ronganensis*
 - 4b. Corolla orange to yellow; leaf blade margin coarsely dentate-serrate or crenate to lobulate, base cuneate to cordate; peduncle brown villous, sometimes also puberulent; bracts 2–8 mm.
 - 5a. Corolla adaxial lip 2-lobed; bracts linear to oblong, 2–5 × 0.7–1.2 mm; calyx segment margin entire; disc ca. 2.5 mm, subentire 3. *A. mairei*
 - 5b. Corolla adaxial lip emarginate; bracts narrowly oblong to lanceolate or oblanceolate, 3–8 × 1.5–3 mm; calyx segment margin dentate, rarely subentire; disc 1–1.5 mm, 5-lobed 9. *A. saxatilis*
- 1b. Calyx 5-lobed from below to above middle, tube at least 2 mm.
 - 6a. Petiole to 1 cm; leaf blade rhombic to rhombic-ovate; lateral veins 2 or 3 on each side of midrib, inconspicuous, margin shallowly crenate to denticulate 10. *A. rhombifolius*
 - 6b. Petiole to 2–12(–14) cm; leaf blade ovate to broadly ovate, elliptic, lanceolate, or oblong, rarely ovate-rhombic; lateral veins 3–7 on each side of midrib, conspicuous, margin coarsely to double serrate, crenate, or dentate to lobulate, rarely merely crenate to dentate or serrate.
 - 7a. Leaf blade adaxially densely puberulent; peduncle spreading pubescent 8. *A. bullatus*
 - 7b. Leaf blade adaxially both puberulent and villous, at least sparsely so along veins; peduncle villous, sometimes also pubescent.
 - 8a. Corolla limb slightly 2-lipped, all lobes subequal; petiole, peduncle, and calyx segments bristly-villous, sometimes also puberulent.
 - 9a. Leaf blade ovate, ca. 3.5 × 2 cm; petiole ca. 2 cm; calyx 10–11 mm 11. *A. vulpinus*
 - 9a. Leaf blade broadly ovate, 4–5.5 × 3–4.8 cm; petiole to 7.5 cm; calyx 5–8 mm 12. *A. trichanthus*
 - 8b. Corolla limb 2-lipped, abaxial lip at least 2 × longer than adaxial lip; petiole, peduncle, and calyx segments villous, sometimes also pubescent or puberulent.
 - 10a. Corolla adaxial lip 2-lobed; petiole to 4 cm; leaf blade 2.2–4 × 2–3 cm, margin crenate to dentate or serrate, not lobulate; peduncle 4–7 cm, brown villous 7. *A. gamosepalus*
 - 10b. Corolla adaxial lip undivided to emarginate; petiole to 12(–14) cm; leaf blade 2.5–16 × 1.5–9 cm, margin coarsely dentate to serrate or crenate, to lobulate or nearly so; peduncle 2.4–15(–22) cm, brown villous and pubescent or puberulent.

- 11a. Leaf blade margin coarsely dentate-serrate or crenate to nearly lobulate; corolla adaxial lip 1–3 mm wide, abaxial lip ca. 1 cm, lobes ovate-orbicular or broadly ovate 9. *A. saxatilis*
- 11b. Leaf blade margin coarsely double dentate to double serrate or lobulate, lobes dentate to serrate; corolla adaxial lip 4–7 mm wide, abaxial lip 7–8 mm, lobes oblong to obovate.
- 12a. Stamens 6–15 mm, filaments sparsely puberulent; disc ca. 1 mm, entire; calyx lobes 2–5 × 1–2 mm; bracts linear to narrowly triangular, 4–7 × 0.7–1.5 mm 5. *A. convexus*
- 12b. Stamens 5–6 mm, filaments glabrous; disc 2–5 mm, 5-lobed; calyx lobes 1–2.5 × 1.5–3 mm; bracts narrowly oblong to obovate, 4–7 × 1–2 mm 6. *A. aureus*

1. *Ancylostemon humilis* W. T. Wang, Acta Phytotax. Sin. 13: 100. 1975.

°«Ö±°ëÜÄÏ! ai zhi ban ju tai

Ancylostemon saxatilis (Hemsley) Craib var. *microcalyx* (Hemsley) Craib; *Didissandra saxatilis* Hemsley var. *microcalyx* Hemsley.

Petiole to 5.5 cm, rust-brown villous; leaf blade elliptic to lanceolate, 1.1–4.4 × 0.7–1.8 cm, adaxially sparsely brown villous, glabrescent, abaxially pubescent, densely rust-brown villous abaxially along veins, base cuneate to subcordate, margin crenate to serrate; lateral veins 3–5 on each side of midrib, adaxially indistinct, abaxially conspicuous. Peduncle 3–8 cm, brown villous and sometimes glandular pubescent; bracts linear to oblong or elliptic, 2–4 × ca. 1 mm, glabrous to sparsely villous. Calyx 5-sect from base; segments oblong to triangular, 1.5–2 mm, outside sparsely pubescent, glabrescent, margin entire. Corolla yellow-white, 1.1–1.5 cm; limb 2-lipped; adaxial lip ca. 2 mm, 2-lobed, lobes thickened at apex; central lobe of abaxial lip subovate, ca. 3.5 mm, lateral ones narrowly ovate, ca. 1.8 mm. Adaxial stamens included, ca. 9 mm, abaxial ones exerted, 5–8 mm; filaments glabrous; staminode ca. 3.5 mm. Disc ca. 1.3 mm, subentire. Pistil 8–10.5 mm, glabrous. Capsule 2–4 cm. Fl. Jul.

• Stones in forests and damp limestone hills; ca. 2100 m. W Hubei, SE Sichuan.

2. *Ancylostemon notochlaenus* (H. Léveillé & Vaniot) Craib, Notes Roy. Bot. Gard. Edinburgh 11: 266. 1919.

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Didissandra notochlaena H. Léveillé & Vaniot in H. Léveillé, Compt. Rend. Assoc. Franç. Avancem. Sci. 34: 425. 1906; *Didymocarpus notochlaena* (H. Léveillé & Vaniot) H. Léveillé; *Oreocharis notochlaena* (H. Léveillé & Vaniot) H. Léveillé.

Petiole to 8 cm, densely brownish pannose; leaf blade lanceolate to narrowly oblong, 3–12 × 1–3.2 cm, adaxially white puberulent, abaxially densely brownish pannose, base often oblique, subrounded to subcordate, margin crenulate to crenate; lateral veins 7 or 8 on each side of midrib, inconspicuous. Peduncle 12–27 cm, brownish pannose; bracts lanceolate, 6–18 × 1–3 mm, brownish pannose. Calyx 5-sect from near base; segments triangular, ca. 4 mm, outside densely pubescent, margin entire. Corolla orange to yellow, 1.5–2 cm; limb 2-lipped; adaxial lip 0.5–1 mm, 2-lobed, lobes orbicular, ca. 1 × 1 mm; abaxial lip ca. 3 mm, lobes oblong, 2–5 × ca. 4 mm. Sta-

mens included, 6–7 mm; filaments glabrous; staminode ca. 2 mm. Disc 1–1.7 mm, 5-lobed. Pistil 7–11 mm, glabrous. Fruit unknown. Fl. Sep–Oct.

• Shady, damp cliffs in forests. Guizhou (Guiyang Xian).

3. *Ancylostemon mairei* (H. Léveillé) Craib, Notes Roy. Bot. Gard. Edinburgh 11: 267. 1919.

μá±±Ö±°ëÜÄÏ! dian bei zhi ban ju tai

Petiole to 6 cm, rust-brown villous and pubescent; leaf blade elliptic to oblong, 1.5–8 × 1.1–3 cm, adaxially densely gray villous and sparsely brown villous and pubescent or sparsely villous to puberulent, abaxially white pubescent and densely brown villous or villous to puberulent, base cuneate to cordate, margin crenate to lobulate with lobes crenate; lateral veins 4 or 5 on each side of midrib, inconspicuous or conspicuous abaxially. Peduncle 4–10 cm, brown villous; bracts linear to oblong, 2–5 × 0.7–1.2 mm, brown villous. Calyx 5-sect from base; segments oblong to narrowly lanceolate, 3–6 mm, outside brown villous, margin entire. Corolla orange to yellow, 1.5–2.5 cm; limb 2-lipped; adaxial lip ca. 4 mm, 2-lobed, lobes suborbicular, 1.5–3 × 1.5–2 mm; abaxial lip 6–7 mm, lobes obovate, 4–6 × 2–3.5 mm. Stamens included, 0.8–1.3 cm; filaments glabrous; staminode ca. 3 mm. Disc ca. 2.5 mm, subentire. Pistil 0.7–1.4 cm, glabrous. Capsule 2–3.4 cm. Fl. Jun–Jul.

• Rocks; 1500–3200 m. Sichuan, NE Yunnan.

The varieties of *Ancylostemon mairei* are very difficult to distinguish, and Weitzman and Skog believe that they should not be recognized.

- 1a. Leaf blade elliptic to ovate, 1.2–5 × 1–2.7 cm, margin crenate to lobulate with lobes crenate, adaxially densely gray villous and sparsely brown villous and pubescent, abaxially white pubescent and densely brown villous; lateral veins inconspicuous 3a. var. *mairei*
- 1b. Leaf blade ovate or obovate to elliptic, 2–8 × 1.1–3 cm, margin crenate, adaxially sparsely villous to puberulent, abaxially villous to puberulent; lateral veins conspicuous abaxially 3b. var. *emeiensis*

3a. *Ancylostemon mairei* var. *mairei*

μá±±Ö±°ëÜÄÏ!(Ö±±äÖÖ) dian bei zhi ban ju tai (yuan bian zhong)

Didymocarpus mairei H. Léveillé, Repert. Spec. Nov. Regni Veg. 11: 301. 1912.

Petiole to 5 cm; leaf blade elliptic to ovate, 1.2–5 × 1–2.7 cm, adaxially densely gray villous and sparsely brown villous and pubescent, abaxially white pubescent and densely brown villous, margin crenate to lobulate with lobes crenate; lateral veins inconspicuous. Fl. Jun–Jul.

- Rocks in forests; 3000–3200 m. NE Yunnan.

3b. *Ancylostemon mairei* var. *emeiensis* K. Y. Pan, Acta Phytotax. Sin. 26: 434. 1988.

¶ëÄ¼Ö±°êÜÄÏ! e mei zhi ban ju tai

Petiole to 6 cm; leaf blade ovate or obovate to elliptic, 2–8 × 1.1–3 cm, adaxially sparsely villous to puberulent, abaxially villous to puberulent, margin crenate; lateral veins conspicuous abaxially. Fl. Jun.

- Shady, damp rocks; 1500–2100 m. Sichuan (Emei Xian).

4. *Ancylostemon ronganensis* K. Y. Pan, Acta Phytotax. Sin. 26: 436. 1988.

ÈÜ°Ö±°êÜÄÏ! rong an zhi ban ju tai

Petiole to 2.8 cm, densely brownish villous; leaf blade elliptic to elliptic-ovate, 2.5–7.5 × 1.8–4.2 cm, appressed villous and puberulent, base oblique, cuneate, margin serrate; lateral veins 5–7 on each side of midrib, conspicuous. Peduncle 10–11 cm, sparsely puberulent; bracts apparently absent. Calyx 5-sect from base; segments narrowly lanceolate, ca. 2.5 mm, outside pubescent, margin entire. Corolla pink, 2.8–3 cm; limb 2-lipped; adaxial lip 6–7 mm, 2-lobed, lobes oblong, ca. 6.5 × 4 mm; abaxial lip 1–1.2 cm, lobes oblong, 5–7 × 4–5 mm. Stamens included, 5–9 mm; filaments glabrous; staminode ca. 1 mm. Disc ca. 1 mm, entire. Pistil 1.5–2.3 cm, glabrous. Fruit unknown. Fl. Jul.

- Rocks in valleys. Guangxi (Rong'an Xian).

5. *Ancylostemon convexus* Craib, Notes Roy. Bot. Gard. Edinburgh 11: 235, 267. 1919.

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Petiole to 12 cm, rust-brown villous; leaf blade ovate, 2.5–16 × 2–9 cm, adaxially white puberulent and sparsely rust-brown villous, abaxially white puberulent and sparsely rust-brown villous, rust-brown villous along veins, base often oblique, rounded to cordate, margin double serrate to lobulate, lobes dentate to serrate; lateral veins 4–7 on each side of midrib, conspicuous. Peduncle 2.4–12 cm, rust-brown villous and sparsely white puberulent; bracts linear to narrowly triangular, 4–7 × 0.7–1.5 mm, sparsely rust-brown villous. Calyx 4–9 mm, 5-lobed from below to above the middle; lobes lanceolate to ovate, 2–5 mm, outside sparsely villous and pubescent, margin dentate or entire. Corolla orange to orange-yellow, 2–2.5 cm; limb 2-lipped; adaxial lip rounded, 2–4.5 × 4–7 mm, undivided to emarginate; abaxial lip 7–8 mm, lobes obovate, 4.5–6 × 3–5 mm. Stamens included or very slightly exerted, 0.6–1.5 cm; filaments sparsely puberulent; staminode ca. 2.5 mm. Disc ca. 1 mm, entire. Pistil 0.9–1.8 cm, glabrous. Capsule 3.5–5 cm. Fl. May–Aug, fr. Jul–Oct.

- Shady, damp cliffs, rocks, and trees; 2500–3400 m. Yunnan (Dali Xian).

6. *Ancylostemon aureus* (Franchet) B. L. Burt, Notes Roy. Bot. Gard. Edinburgh 22: 305. 1958.

¼°êÜÄÏ! ao ban ju tai

Petiole to 11(–14) cm, densely brown villous and gray pubescent; leaf blade broadly ovate to oblong ovate or elliptic, 3.5–11 × 1.5–7 cm, adaxially densely white puberulent and sparsely brown villous, abaxially densely white pubescent, sparsely brown villous along veins, base often oblique, broadly cuneate to cordate, margin coarsely double dentate to double serrate or lobulate, lobes dentate to serrate; lateral veins 4–6 on each side of midrib, conspicuous. Peduncle 5–15(–22) cm, pubescent and sparsely brown villous; bracts narrowly oblong to obovate, 4–7 × 1–2 mm, pubescent to villous. Calyx 7–10 mm, 5-lobed from above middle; lobes broadly triangular to ovate, 1–2.5 mm, outside white puberulent to pubescent and brown villous, margin irregularly dentate. Corolla orange to yellow, 2.2–2.8 cm; limb 2-lipped; adaxial lip rounded, 1.5–3 × 4–4.5 mm, emarginate to undivided; abaxial lip ca. 7 mm, lobes oblong to obovate-oblong, central lobe 5–7 × 5–5.5 mm, lateral lobes 4–5 × 4–5 mm. Stamens included, 5–6 mm; filaments glabrous; staminode 1–3 mm. Disc 2–5 mm, 5-lobed. Pistil 1.3–2.1 cm, glabrous or pubescent. Capsule (1.3–)2.5–5 cm. Fl. May–Oct, fr. Aug–Oct.

- Rocks and on trees in moist shady forests; 2800–3600 m. Yunnan.

- 1a. Leaf blade broadly ovate or oblong ovate, 3.5–11 × 2.5–7.5 cm; pistil glabrous; cymes 1–6-flowered 6a. var. *aureus*
- 1b. Leaf blade elliptic, 4–10 × 1.5–4 cm; pistil pubescent; cymes 1- or 2-flowered 6b. var. *angustifolius*

6a. *Ancylostemon aureus* var. *aureus*

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Roettlera aurea Franchet, Bull. Mus. Hist. Nat. (Paris) 5: 250. 1899; *Ancylostemon concavum* Craib; *Didymocarpus aureus* (Franchet) Diels.

Leaf blade broadly ovate to oblong ovate, 3.5–11 × 2.5–7 cm. Cymes 1–6-flowered. Pistil glabrous. Fl. May–Oct, fr. Aug–Oct.

- Rocks in forests; 3100–3600 m. NW Yunnan.

6b. *Ancylostemon aureus* var. *angustifolius* K. Y. Pan, Acta Phytotax. Sin. 26: 434. 1988.

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Leaf blade elliptic, 4–10 × 1.5–4 cm. Cymes 1- or 2-flowered. Pistil pubescent. Fl. Jul.

- Rocks or on trees in forests; ca. 2800 m. Yunnan (Zhenkang Xian).

7. *Ancylostemon gamosepalus* K. Y. Pan, Acta Phytotax. Sin. 26: 434. 1988.

»Æ»Ö±°êÜÄÏ! huang hua zhi ban ju tai

Petiole to 4 cm, densely brown villous; leaf blade ovate, 2.2–4 × 2–3 cm, adaxially puberulent and white to pale brown villous, abaxially puberulent, brown villous along veins, base cuneate to rounded, margin crenate to dentate or serrate; lateral veins 4 or 5 on each side of midrib, conspicuous. Peduncle 4–7 cm, brown villous; bracts linear to narrowly triangular, ca. 3 × 1 mm, brown villous. Calyx 5–6 mm, 5-lobed from to above middle; lobes ovate-triangular, 2–2.5 mm, outside brown villous, margin dentate. Corolla orange, 2.5–3.5 cm; limb 2-lipped; adaxial lip 3–5 mm, 2-lobed, lobes suborbicular, 1–2 × 1–2 mm; abaxial lip 6–9 mm, lobes obovate, 5–8 × 5–6.5 mm. Stamens included, 6–7 mm; filaments glabrous; staminode ca. 1.5 mm. Disc ca. 1.5 mm, entire. Pistil 1.5–2.5 cm, glabrous. Capsule ca. 3.2 cm. Fl. Jul.

• Shady, damp rocks; 1700–2500 m. S and C Sichuan.

8. *Ancylostemon bullatus* W. T. Wang & K. Y. Pan in W. T. Wang, *Guihaia* 12: 289. 1992.

ÁÿÖ¶Ö±°êÜÄÏ! pao ye zhi ban ju tai

Petiole to 3 cm, densely deep brown villous; leaf blade ovate to ovate-rhombic, 2–3.4 × 1.5–2.9 cm, adaxially densely puberulent, abaxially densely white puberulent, deep brown villous along veins, base broadly cuneate to rounded, margin double dentate, teeth obtuse; lateral veins 4 or 5 on each side of midrib, conspicuous. Peduncle 3.5–6.5 cm, spreading pubescent; bracts linear to narrowly triangular, 2.8–3.2 × ca. 0.7 mm, puberulent. Calyx ca. 4 mm, 5-lobed from middle; lobes triangular, ca. 2 mm, outside puberulent, margin denticulate. Corolla orange, ca. 2.4 cm; limb 2-lipped; adaxial lip ca. 4.5 × 5 mm, indistinctly 2-lobed, lobes subsemiorbicular, ca. 0.8 × 1 mm; abaxial lip ca. 6.5 × 5.6 mm, central lobe obovate-oblong, ca. 6.5 × 2.5 mm, lateral lobes oblong, ca. 5 × 2.5 mm. Stamens included, adaxial ones ca. 8.5 mm, abaxial ones ca. 4.5 mm; filaments glabrous; staminode ca. 0.6 mm. Disc ca. 1.8 mm, entire. Pistil ca. 1.9 cm, glabrous. Fruit unknown. Fl. Jun.

Grassy areas with shrubs on limestone hills; ca. 2000 m. Yunnan (Luoping Xian).

9. *Ancylostemon saxatilis* (Hemsley) Craib, *Notes Roy. Bot. Gard. Edinburgh* 11: 266. 1919.

Ö±°êÜÄÏ! zhi ban ju tai

Didissandra saxatilis Hemsley, *J. Linn. Soc., Bot.* 26: 227. 1890; *Didymocarpus saxatilis* (Hemsley) H. Léveillé.

Petiole to 6(–10) cm, densely brown villous; leaf blade lanceolate to broadly ovate or oblong, 2.5–9 × 1.5–5.5 cm, adaxially densely white puberulent and sparsely rust-brown villous, abaxially white puberulent and pubescent, rust-brown villous along veins, base often oblique, cordate to cuneate, margin coarsely dentate-serrate or crenate to nearly lobulate; lateral veins 4–7 on each side of midrib, conspicuous. Peduncle 4–11 cm, brown villous and pale brown puberulent; bracts narrowly oblong to lanceolate or oblanceolate, 3–8 × 1.5–3 mm, brown villous and pubescent. Calyx 4–7 mm, 5-lobed from below to near middle, rarely 5-sect from near base; lobes ovate to lanceolate, 2–3 mm, outside sparsely puberulent and rust-brown

villous to glabrescent, margin dentate, rarely subentire. Corolla yellow, 1.9–3.5 cm; limb 2-lipped; adaxial lip rounded, 1–3 × 1–3 mm, emarginate; abaxial lip ca. 10 × 8 mm, central lobe ovate-orbicular, 4.5–10 × 3–6.5 mm, lateral lobes broadly ovate, 4–6 × ca. 3 mm. Stamens included, 4–8 mm; filaments glabrous to puberulent; staminode ca. 4 mm. Disc 1–1.5 mm, 5-lobed. Pistil 1.5–2.2 cm, pubescent. Capsule (2–)3–5(–7) cm. Fl. Jun–Aug, fr. Jul–Aug.

• Shady, damp rocks in forests; 1600–3100 m. S Gansu, NW Hubei, SE Sichuan.

10. *Ancylostemon rhombifolius* K. Y. Pan, *Acta Phytotax. Sin.* 26: 435. 1988.

ÁãÖ¶Ö±°êÜÄÏ! ling ye zhi ban ju tai

Petiole to 1 cm, rust-brown villous; leaf blade rhombic to rhombic-ovate, 1.5–3 × 1.2–1.8 cm, adaxially densely gray pubescent, abaxially puberulent, rust-brown villous along veins, base broadly cuneate to rounded, margin shallowly crenate to denticulate; lateral veins 2 or 3 on each side of midrib, inconspicuous. Peduncle 3.5–4 cm, rust-brown villous and puberulent; bracts oblong lanceolate, 3–3.5 × ca. 1 mm, rust-brown villous. Calyx ca. 4 mm, 5-lobed from below middle to 5-sect from near base; lobes ovate-lanceolate, ca. 2.2 mm, outside rust-brown villous, margin entire. Corolla yellow, ca. 2.1 cm; limb slightly 2-lipped, all lobes subequal, oblong, ca. 4 × 2.8 mm. Stamens included, 3.5–5 mm; filaments glabrous; staminode ca. 1 mm. Disc ca. 1.5 mm, 5-lobed. Pistil ca. 1.3 cm, glabrous. Capsule ca. 2.5 cm. Fl. Jul.

• Rocks near roads; ca. 2700 m. Sichuan (Meigu Xian).

11. *Ancylostemon vulpinus* B. L. Burt & R. Davidson, *Notes Roy. Bot. Gard. Edinburgh* 21: 217. 1954.

°üÄ«Ö±°êÜÄÏ! hu mao zhi ban ju tai

Petiole ca. 2 cm, densely bristly-villous; leaf blade ovate, ca. 3.5 × 2 cm, adaxially densely white puberulent and villous, sparsely brown villous along veins, abaxially white puberulent, densely brown villous along veins, base rounded to cordate, margin irregularly lobulate; lateral veins 3–5 on each side of midrib, conspicuous. Peduncle 5–7 cm, densely brown bristly-villous; bracts lanceolate to ovate-lanceolate, 5–8 × 1–2 mm, brown villous. Calyx 1–1.1 cm, 5-lobed from above middle; lobes triangular, 3–4 mm, outside sparsely brown bristly-villous, margin sometimes sparsely dentate. Corolla ca. 1.7 cm; limb slightly 2-lipped, all lobes subequal, oblong to obovate, 1.5–5 × 2–4 mm. Stamens included, 4–5 mm; filaments glabrous; staminode 1–2 mm. Disc 2.5–3 mm, 2–5-lobed. Pistil

1.3–1.5 cm, glabrous. Capsule ca. 1.2 cm.

- Yunnan (Dayao Xian).

We have not seen specimens of this species; the above description is based on the protologue and photographs of specimens.

Ancylostemon vulpinus differs from other species of *Ancylostemon* in having the calyx 5-lobed from above the middle and segments triangular-acuminate, corolla 2 times longer than calyx, longer villous outside, 5-lobed, lobes equal, and indistinctly ampliate at abaxial side.

12. *Ancylostemon trichanthus* B. L. Burtt & R. Davidson, Notes Roy. Bot. Gard. Edinburgh 21: 218. 1954.

毛花紫斑木 *mao hua zhi ban mu tai*

Petiole to 7.5 cm, brown bristly-villous and white puberulent; leaf blade broadly ovate, 4–5.5 × 3–4.8 cm, adaxially white puberulent and sparsely brown bristly-villous, abaxially white puberulent, base rounded to cordate, margin irregularly lobulate, lobes crenulate; lateral veins 4 or 5 on each side of midrib, conspicuous. Peduncle 5–7 cm, sparsely brown bristly-villous; bracts lanceolate to ovate-lanceolate, 2–6 × 1–2 mm, brown bristly-villous and puberulent. Calyx 5–8 mm, 5-lobed from middle; lobes triangular, 2.5–4 mm, outside sparsely brown bristly-villous, margin sometimes denticulate. Corolla yellow, 1.7–2 cm; limb slightly 2-lipped, all lobes subequal, obovate, ca. 4 × 3 mm. Stamens included, 2–4 mm; filaments glabrous; staminode ca. 1 mm. Disc ca. 2.2 mm, 2-denticulate. Pistil ca. 1.1 cm, glabrous. Capsule ca. 2 cm. Fl. Sep.

- Yunnan (Dayao Xian).

The above description is based on the protologue and a photograph of the holotype.

