

虾脊兰属 xia ji lan shu

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Alismorkis Thouars.

Herbs, terrestrial, small to large. Rhizome present or not. Pseudobulbs usually small, conic, ovoid, or subglobose, rarely inconspicuous or cylindric, with roots at base and a few leaves at apex; roots long, stout, pubescent. Leaves sometimes not well developed or not completely spreading at anthesis; blade rarely narrowly ensiform or lorate, ± plicate, but often convolute when young, base contracted into a petiole-like stalk or sub sessile, sheathing, articulate or not. Scape arising from leaf axil or from base of pseudobulb, rarely from apex of leafless pseudobulb, erect, usually densely puberulent; inflorescence a terminal raceme, few to many flowered; floral bracts persistent or caducous. Flowers resupinate, small to medium-sized, often opening widely. Sepals similar, free. Petals often smaller than sepals; lip adnate to base of column wings and forming a tube, or adnate only to base of column, or to column foot and free from column itself, lobed or unlobed, base spurred or not; disk often lamellate or ridged, sometimes with callose appendages at base. Column often short and thick, without or with a short foot at base, winged, rostellum lobed or unlobed; stigma lateral; pollinia waxy, 8, in 2 groups, nearly equal or unequal in size; caudicle conspicuous or inconspicuous, commonly adherent to a sticky viscidium.

About 150 species: tropical and subtropical Asia, Australia, New Guinea, and the SW Pacific islands, as well as tropical Africa and Central and NW South America; 51 species (21 endemic) in China.

1a. Leaves deciduous in dry season; inflorescence (including rachis, bracts, and flowers) densely villous; column with a distinct column foot; lip adnate to column foot ................................................................. 51. C. labrosa
1b. Leaves not deciduous; inflorescence glabrous or puberulent; column without a column foot; lip adnate to column wings or adnate to base of column.

2a. Floral bracts caducous; rostellum unlobed.
   3a. Lip similar to petals, spurrel ................................................................. 1. C. actinomorpha
   3b. Lip different from petals, spurred at base.
      4a. Flowers white .................................................................................. 2. C. angustifolia
      4b. Flowers yellow.
         5a. Lip obscurely 3-lobed; lateral lobes very small, to 1 mm, sometimes inconspicuous .................... 3. C. lyroglossa
         5b. Lip distinctly 3-lobed; lateral lobes relatively large, 2–5 mm.
            6a. Spur cylindric; lip adnate to base of column wings; column slender, ca. 12 mm .................. 4. C. densiflora
            6b. Spur clavate; lip adnate to entire length of column wings; column thick, 5–7 mm.
               7a. Leaves narrowly elliptic; lip with 2 triangular lamellae at base of disk ......................... 5. C. clavata
               7b. Leaves oblong-elliptic to oblanceolate; lip with 2 lunar calli between lateral lobes of disk .......... 6. C. speciosa
2b. Floral bracts persistent; rostellum 2- or 3-lobed.
   8a. Lip spurless.
      9a. Flowers small; sepal to 7 mm ............................................................. 7. C. tsongiana
      9b. Flowers large; sepal 10–20 mm.
     10a. Lip clawed at base, claw forming a shallow sac at base ................................................... 8. C. sacculata
     10b. Lip not clawed.
        11a. Lip with 3–5 crested lamellae on disk ................................................ 9. C. tricarinata
        11b. Lip without lamellae or calli on disk.
           12a. Flowers pale yellow .................................................................... 10. C. ecarinata
           12b. Flowers pink or pale purplish pink.
              13a. Sepals and petals not reflexed .................................................... 11. C. puberula
              13b. Sepals and petals strongly reflexed ........................................... 12. C. reflexa
8b. Lip spurred.
   14a. Lip unlobed.
      15a. Lip margin fimbriate ........................................................................ 13. C. alpina
      15b. Lip margin entire, undulate, erose, or emarginate, but not fimbriate.
         16a. Floral bracts and sepals reflexed .................................................. 14. C. whiteana
         16b. Floral bracts and sepals not reflexed.
            17a. Leaves 4 or 5, narrowly oblong, 1.5–2.6 cm wide ......................... 15. C. fargesii
            17b. Leaves 2 or 3, oblong or oblanceolate, 4–8 cm wide.
               18a. Flowers yellowish green; lip reniform; spur 11–14 mm ...................... 16. C. simplex

18b. Flowers white, tinged purple; lip elliptic; spur ca. 28 mm .................................................... 17. C. petelotiana

14b. Lip 2- or 3-lobed.

19a. Lip 2-lobed .......................................................................................................................................... 18. C. biloba

19b. Lip 3-lobed.

20a. Lip adorned with wartlike calli on disk.

21a. Mid-lobe of lip entire or shallowly emarginate, mucronate at apex or not.

22a. Flowers yellow-green; spur ca. 5.5 mm ................................................................. 19. C. dulongensis

22b. Flowers pinkish purple or purple-red; spur 25–50 mm.

23a. Leaves densely pubescent on both surfaces; pedicel and ovary ca. 20 mm; lip 8–9 mm .......... 20. C. sinica

23b. Leaves sparsely pubescent abaxially; pedicel and ovary ca. 35 mm; lip 11–17 mm .......... 21. C. sylvatica

21b. Mid-lobe of lip divided by a deep sinus into 2 lobules.

24a. Scape arising from previous year’s leafless pseudobulb ......................................................... 23. C. odora

24b. Scape arising from leaf axil of current year’s growth.

25a. Spur 2–3 mm ................................................................................................................................. 22. C. ×dominyi

25b. Spur 5–30 mm.

26a. Leaves ensiform or lorate, 0.8–2(--5) cm wide; floral bracts reflexed; dorsal sepal to

9 mm ...................................................................................................................................................... 24. C. davidii

26b. Leaves elliptic, elliptic-lanceolate, ovate-elliptic, or ovate-lanceolate, 4–12 cm wide;

floral bracts not reflexed; dorsal sepal 10–15 mm.

27a. Flowers yellowish green; lateral lobes of lip ovate or flabellate, 5–7 mm wide.

28a. Leaves uniformly green, without silver-gray bands on adaxial surface; spur longer than

20 mm ...................................................................................................................................................... 25. C. herbacea

28b. Leaves with several silver-gray bands on adaxial surface; spur less than 20 mm .... 26. C. argenteostriata

27b. Flowers white, sometimes tinged purplish violet, or occasionally purplish red;

lateral lobes of lip linear, oblone, or narrowly obovate-cuneate, 2–3 mm wide.

29a. Pedicel and ovary 10–20 mm; lobules of lip mid-lobe subrhombic,

5–6 mm wide ........................................................................................................................................ 27. C. alismatifolia

29b. Pedicel and ovary 30–40 mm; lobules of lip mid-lobe linear-oblong,

cu. 3 mm wide ........................................................................................................................................ 28. C. triplicata

30b. Lip adorned with ridges or lamellae, or without any appendages on disk.

31a. Mid-lobe of lip obovate, ca. 8 mm wide ..................................................................................... 29. C. yuana

31b. Mid-lobe of lip oblone-ligulate, ca. 2 mm wide ......................................................................... 30. C. limprichtii

30a. Lip without any appendages on disk.

32a. Ovary and capsule with 6 longitudinal winglike ridges ........................................................................ 46. C. arisanensis

32b. Ovary and capsule without longitudinal ridges.

33a. Ridges on lip connecting to column wings.

34a. Lip with 3–5(--7) ridges on disk; spur 20–32 mm ............................................................. 45. C. aristulifera

34b. Lip with 3 ridges on disk; spur 5–20 mm.

35a. Lip with 4 brown marks on disk; sepals 12–13 mm ........................................................... 43. C. graciliflora

35b. Lip lacking brown marks on disk; sepals 15–17 mm.

36a. Ridges on disk of lip inconspicuous; lip mid-lobe as broad as or broader than long ..... 42. C. plantaginea

36b. Ridges on disk of lip tall and conspicuous, running onto mid-lobe; lip mid-lobe

much longer than broad ....................................................... 44. C. henryi

33b. Ridges and lamellae on lip free from column wings.

37a. Lateral lobes of lip distinctly broader than mid-lobe.

38a. Petiole-like leaf base 30–37 cm; lip ca. 5.5 mm ................................................................. 39. C. trifida

38b. Petiole-like leaf base 3–9 cm; lip 10–13 mm.

39a. Spur much shorter than pedicel and ovary, 5–10 mm; lip mid-lobe emarginate .......... 40. C. discolor

39b. Spur longer than pedicel and ovary, 20 mm or more; lip mid-lobe shortly apiculate ...... 41. C. alleizettei

37b. Lateral lobes of lip narrower than mid-lobe.

40a. Spur 8–15 mm.

41a. Flowers bright yellow; lip with 5 ridges on disk ................................................................. 50. C. sieboldii

41b. Flowers white, pink, or pale red; lip with 3 lamellae or ridges on disk.

42a. Margins of lip mid-lobe fimbriate ......................................................................................... 47. C. metoensis

42b. Margins of lip mid-lobe slightly erose or emarginate, but not fimbriate.

43a. Leaf solitary; flowers pale red; lip mid-lobe broadly oovate-cuneate,

辐射虾脊兰  fu she xia ji lan

*Phaius actinomorphus* (Fukuyama) T. P. Lin.

Plants 40–60 cm tall, without a distinct rhizome. Pseudobulbs very small, enclosed in sheaths. Leaves 3 or 4, basal, well developed at anthesis, not deciduous; blade oblanceolate, 20–55 × 3–8 cm, glabrous, 5-veined, apex acuminate; petiole-like base 10–20 cm, not articulate. Scape arising from leaf axil, erect, 40–50 cm, glabrous, with several scattered tubular sheaths; rachis ca. 10 cm, densely many flowered; floral bracts caducous, whitish, lanceolate, 30–40 mm, membranous, glabrous, apex acuminate. Flowers lemon-yellow, not opening widely; pedicel and ovary ca. 10 mm, glabrous. Sepals similar, oblong-ligulate, 8–9 × 3.5–4 mm, membranous, 3–5-veined, apex acute or mucronate. Petals elliptic, concave, 8–9 × 3.5–4.5 mm, membranous, 3-veined, margin slightly undulate, apex acute; lip similar to petals, ca. 8 × 4.7 mm, glabrous, 3-veined, apex mucronate, base spurless and slightly contracted and adnate to base of column, free from column wings, unlobed, slightly undulate at margin, embracing column on both sides. Column subcylindric, ca. 4 mm, slightly contracted near middle, glabrous; rostellum absent; anther terminal; pollinia clavate, equal in size, ca. 1.5 mm. Fl. Dec. 2n = 38*, 40*.

- Damp places in forests; 800–1000 m. Taiwan.


狭叶虾脊兰  xia ye xia ji lan

*Amblyglottis angustifolia* Blume, Bijdr. 369. 1825; *Alismorkis angustifolia* (Blume) Kuntze; *Calanthe phajoides* H. G. Reichenbach; *C. pumila* Fukuyama; *C. striata* (Swartz) R. Brown var. *pumila* (Fukuyama) S. S. Ying.

Plants 30–40 cm tall, with small cylindric pseudobulbs and a creeping rhizome. Leaves 4–10, subbasal, usually well developed at anthesis, not deciduous; blade linear-lanceolate to narrowly elliptic, ca. 30 × 2–3.5 cm, glabrous, with 5 or 6 main veins, apex acuminate; petiole-like base 4–16 cm, conduplicate, articulate. Scapes 1 or 2, arising from axil of outer sheaths, erect, ca. 35 cm, with 3 or 4 widely spaced tubular sheaths; rachis 3–7 cm, laxly 10–15-flowered; floral bracts caducous, narrowly lanceolate, 20–40 mm, glabrous, apex acuminate. Flowers white; pedicel and ovary 12–20 mm, glabrous. Sepals similar, oblong-elliptic, 10–13 × 4–5 mm, 3–5-veined, apex acute. Petals ovate-elliptic, 8–11 × 4–6 mm, 3–5-veined, apex obtuse-rounded and apiculate; lip adnate to base of column wings, ca. 10 × 6 mm, deeply 3-lobed; lateral lobes subovate, ca. 6 mm across their apices; mid-lobe obcordate, ca. 5 × 6 mm, apex retuse; disk with 2 triangular ridges at base; spur slightly curved, somewhat clavate, 6–9 × 2–3 mm, slightly contracted at middle. Column ca. 5 mm; rostellum triangular, unlobed. Fl. Sep.

Evergreen broad-leaved forests or mossy forests; 1000–1500 m. Guangdong, Hainan, S Taiwan [Indonesia, Malaysia, Philippines].


南方虾脊兰 nan fang xia ji lan

*Alismorkis foerstermannii* (H. G. Reichenbach) Kuntze; *A. lyroglossa* (H. G. Reichenbach) Kuntze; *Calanthe foerstermannii* H. G. Reichenbach; *C. forsythiflora* Hayata; *C. liukiuensis* Schlechter; *C. lyroglossa* var. *forsythiflora* (Hayata) S. S. Ying.

Plants 30–50 cm tall. Rhizome short, stout. Pseudobulbs clavate-cylindric, 2–3 cm. Leaves 3–5, basal, well developed at anthesis, not deciduous; blade oblancllaceolate, plicate, 30–60(–100) × 3–8.5 cm, glabrous, apex acuminate; petiole-like base 5–8 cm, sheathing, articulate. Scape arising from base of pseudobulb, erect, 30–50 cm, stout, lower part with 3 or 4 tubular sheaths; rachis 8–14 cm, densely many flowered; floral bracts caducous, lanceolate, to 40 mm, membranous, glabrous. Flowers small, yellow, turning black when dried; ovary and pedicel ca. 10 mm, glabrous. Sepals similar, elliptic or elliptic-
Alismorkis densiflora (Lindley) Kuntze; Calanthe kazuoii Yamamoto.

Plants 50–60 cm tall, with long creeping rhizome 3–4 mm in diam. Shoots spaced 5–6 cm apart along rhizome. Pseudobulbs small or inconspicuous, enclosed in basal sheaths of leaves. Leaves usually 3, basal, well developed at anthesis, not deciduous; blade lanceolate or narrowly elliptic, 35–40 × 2.3–6.5 cm, glabrous, apex acute; petiole-like base ca. 10 cm, articulate, enclosed by tubular sheaths and forming a slender pseudostem 10–16 cm. Scapes 1 or 2, arising from rhizome, erect, ca. 20 cm, 3–4 mm in diam., with 3–5 tubular sheaths toward base; racis short, densely many flowered; floral bracts caducous, narrowly lanceolate, 1.5–3 cm, glabrous. Flowers arranged in a dense head, pale yellow, turning black when dried; pedicel and ovary ca. 20 mm, glabrous. Sepals similar, oblong, 13–14 × ca. 5 mm, 3–5-veined, apex aristate. Petals subspathulate, 13–14 × ca. 4 mm, 3-veined, apex acute; lip adnate to base of column wings, ovate-orbicular, 7–11 × 5–11 mm, 3-lobed above middle; lateral lobes ovate-triangualr, ca. 5 × 3 mm, ca. 10 mm across their apices, apex obtuse; mid-lobe subsquare, ca. 5 × 4 mm, apex emarginate; disk with 2 lamellae; lamellae deltoid, ca. 2 × 3 mm; spur straight, cylindric, 12–16 × ca. 3 mm, apex obtuse. Column ± arcuate, ca. 12 mm, slender, base dilated; rostellum broadly ovate-trianular, ca. 1.2 mm, unlobed; anther cap beaked; pollinia obovoid, subequal in size, ca. 1.2 mm, with short caudicules. Capsule nearly pendulous, ellipsoid-globose, ca. 1.3 × 0.8 cm. Fl. Aug–Sep, fr. Oct. 2n = 40.

Forests, along streamsides and valleys; below 1500 m. C and S Hainan, Taiwan [Cambodia, NE India, Japan (Ryukyu Islands), Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam].


Amblyglottis speciosa Blume, Bijdr. 371. 1825; Alismorkis speciosa (Blume) Kuntze; Calanthe disticha Tang & F. T. Wang; C. formosana Rolfe; C. patsinensis S. Y. Hu; C. pulchra (Blume) Lindley var. formosana (Rolfe) S. S. Ying; C. yushunii K. Mori & Yamamoto.

Plants 50–70(–120) cm tall. Rhizome ca. 1 cm in diam., fleshy. Pseudobulbs cylindric-ovoid to clavate, 4–5 × 1–3 cm, several noded, usually enclosed by leaf sheaths. Leaves 5–10, nearly distichous, well developed at anthesis, not deciduous; blade oblong-elliptic to oblanceolate, 40–95 × 4–9 cm, glabrous, apex acuminate; petiole-like base to 20 cm, ca. 1 cm in diam., articulate. Scape arising from base of pseudobulb, 30–45 cm, with several tubular sheaths below middle; racis 10–15 cm, densely many flowered; floral bracts caducous, narrowly lanceolate, 2.5–3.5 cm, membranous, glabrous. Flowers yellow; pedicel and ovary 15–20 mm, glabrous. Sepals similar, ovate-lanceolate, 9–12 × 4–5 mm, 5-veined, apex acuminate. Petals ovate-elliptic, 9–12 × 4–6 mm, 7-veined, apex subacute; lip adnate to entire length of column wings, 8–9 × 5–6 mm, 3-lobed above base; lateral lobes subsquare to ovate-triangualr, ca. 2.5 × 2.5 cm, ca. 5 mm across their apices; mid-lobe flabellate or sometimes subobovate-cuneate, ca. 5 × 5–6 mm, margin undulate, apex truncate and mucronate; disk with 2 lunar calli between lateral lobes, though sometimes inconspicuous; spur slightly arcuate, clavate, 7–9 mm. Column ca. 5 mm, thick, dilated toward apex; rostellum triangular, ca. 3 mm, unlobed; pollinia clavate, subequal in size, ca. 2.1 mm, with conspicuous caudicules; viscidium sublinear, ca. 2.2 mm. Fl. (Apr.–) Jul–Oct.
2n = 20*, 40*.

- Damp places in forests along valleys; 500–1500 m. S Hainan, Hong Kong, Taiwan.


无距虾脊兰 wu ju xia ji lan

Plants ca. 32 cm tall. Rhizome short. Pseudobulbs subconic, ca. 1 cm in diam., with 3 or 4 sheaths. Leaves 2 or 3, well developed at anthesis, not deciduous; blade obovate-lanceolate or oblong, (13–)27–37 × (2–)35.5–6 cm, abaxially puberulent, apex acuminate; petiole-like base 8–19 cm, usually forming a pseudostem, though sometimes short and pseudostem inconspicuous. Scape arising from axil of current year’s leaves, erect, 33–55 cm, densely hairy, with a scalelike sheath near middle; racis 14–16 cm, laxly many flowered; floral bracts persistent, ovate-lanceolate, 3–4 × 1.5–2 mm, membranous, glabrous, apex acute. Flowers pale purple, small; pedicel and ovary 10–15 mm, puberulent. Sepals similar, oblong-lanceolate, 6–7 × 3–4 mm, abaxially puberulent below middle, 5- or 6-veined, apex acute or subobtuse. Petals subspatulate, 5–6 × ca. 1.7 mm, abaxially puberulent at base, 5–8-veined, apex acuminate.


囊爪虾脊兰 nang zhao xia ji lan


Plants 25–30 cm tall. Leaves 3, basal, not deciduous; blade elliptic, 14–17 × 3–4.5 cm, glabrous, base petiole-like, apex subacute or acute. Scape arising from leaf axil, erect, to ca. 27 cm, with 1 or 2 bractlike sheaths, puberulent; racis laxly 4–6-flowered; floral bracts persistent, ovate, apex acuminate. Flowers medium-sized; pedicel and ovary ca. 10 mm, puberulent. Sepals oblong, ca. 15 mm, base contracted, apex subacute; lateral sepals oblique. Petals lanceolate-ligulate, oblique, slightly shorter than sepals, apex acuminate; lip adnate to base of column wings, 3-lobed, spurless, clawed at base, claw concave and forming a shallow sac at base; lateral lobes spreading horizontally, ovate, oblique, ca. 11 mm across their apices, apex obtuse; mid-lobe orbicular, ca. 7 mm wide, apex emarginate and mucronate; disk with 1–3 lamellae; lamellae subovoid, ca. 9 mm. Column short, glabrous. Fl. unknown.

- About 1800 m. Chongqing, Guizhou.


三棱虾脊兰 san leng xia ji lan

Alismorkis tricarinata (Lindley) Kuntze; Calanthe lamellata Hayata; C. megalophala Franchet; C. undulata Schlechter; Paracalanthe lamellata (Hayata) Kudô; P. megalophala (Franchet) Miyabe & Kudô; P. tricarinata (Lindley) Kudô.

Plants 35–50 cm tall. Rhizome inconspicuous. Pseudobulbs globose, ca. 2 cm in diam., with 3 sheaths. Leaves 3 or 4, basal, not well developed at anthesis, not deciduous; blade elliptic or obovate-lanceolate, 20–30 × 5–11 cm, abaxially densely puberulent, margin undulate, apex acute or acuminate; petiole-like base sheathing, forming a stout pseudostem 4–15 cm long and 1–2.5 cm in diam.; sheaths large, apex obtuse, lowest one ca. 2 cm, upper sheaths longer. Scape arising from leaf axil, erect, to 60 cm, to 1.5 cm in diam., stout, puberulent, with several to many ovate-lanceolate sterile bracts; racis 3–20 cm, laxly few to many flowered; floral bracts persistent, ovate-lanceolate, 5–10 mm, membranous, glabrous. Flowers pale yellow, with reddish brown lip; pedicel and ovary 10–20 mm, puberulent. Sepals similar, oblong-lanceolate, 16–18 × 5–8 mm, abaxially sparsely puberulent at base, 5–8-veined, apex acuminate. Petals obovate-lanceolate, 11–15 × 3–5 mm, 3-veined, apex acute or subobtuse; lip adnate to base of column wings, reddish brown, 10–16 × 7–15 mm, spurless, 3-lobed; lateral lobes auriculate or nearly suborbicular, small, ca. 4 × 4–5 mm; mid-lobe reniform, 8–10 × 15–15 mm, margin strongly undulate, apex emarginate and mucronate in sinus; disk with 3–5 crested lamellae. Column ca. 6 mm, thick, ventrally sparsely puberulent; rostellum 2-lobed; anther cap beaked; pollinia narrowly obovoid-globose, ca. 2 mm, with conspicuous caudicles; viscidium elliptic, small, ca. 1 mm. Fl. May–June. 2n = 40, 42, 60.

Grassy slopes, forests; 1300–3500 m. S Gansu, Guizhou, Hubei, S Shaanxi, Sichuan, Taiwan, SE Xizang, Yunnan [Bhutan, NE India, Japan, Kashmir, Nepal].

天全虾脊兰 tian quan xia ji lan

Plants to 30 cm tall, without distinct rhizome. Pseudobulbs conic, small, ca. 1 cm in diam., with 3 sheaths. Leaves usually 3, not well developed at anthesis, not deciduous; blade obovate-oblong, 14–15 × 4.5–5 cm, margin slightly undulate, apex acute or obtuse; petiole-like base sheathing, usually forming a pseudostem to ca. 9 cm. Scape arising from leaf axil, erect, densely puberulent; rachis ca. 4 cm, usually ca. 10-flowered; floral bracts persistent, ovate-lanceolate, 4–5 mm, membranous, glabrous, apex acuminate. Flowers pale yellow; pedicel and ovary ca. 10 mm, puberulent. Dorsal sepal elliptic, 10–11 × 5.5–7 mm, abaxially puberulent, 5-veined, apex acute; petiole-like base adnate to base of column wings, 11–13 × 6–11 mm, spurless, 3-lobed; lateral lobes oblong-falcate, 7–9 mm across their apices, margin entire, apex obtuse; mid-lobe rhombic-elliptic to obovate-cuneate, apical margin irregularly dentate or fringed, apex acute; disk without lamellae or calli. Column ca. 6 mm, abaxially densely puberulent, 5-veined, apex acuminate; disk without lamellae or calli. Flowers pale yellow-green, with pink-purple blotches; pedicel and ovary ca. 20 mm, puberulent. Sepals similar, strongly reflexed, ovate-lanceolate, 15–20 × ca. 5 mm, abaxially puberulent, 5-veined, apex cuspidate-acute; lateral sepals oblong-falcate, ca. 8 mm across their apices, margin entire, apex obtuse; mid-lobe subelliptic or obovate-cuneate, ca. 8 × 8 mm, apical margin irregularly dentate, apex acute; disk without lamellae or calli. Column ca. 6 mm, glabrous; rostellum 3-lobed; mid-lobe shorter and sharply tooth-shaped. Fl. May–Jun. 2n = 40, 42.


镰萼虾脊兰 lian e xia ji lan

Alismorkis puberula (Lindley) Kuntze; Calanthe amoena W. W. Smith; C. lepida W. W. Smith; Paracalanthe reflexa (Maximowicz) Kuô var. puberula (Lindley) Kuôd.

Plants 25–60 cm tall. Rhizome usually inconspicuous. Pseudobulbs narrowly cylindric, ca. 2 × 1.5 cm, enclosed in leaf sheaths. Leaves 4 or 5, basal, well developed at anthesis, not deciduous; blade elliptic or elliptic-oblong, 12–22 × 5–7 cm, glabrous or sparsely puberulent along veins abaxially, with 5 main veins, apex acute or acuminate; petiole-like base to 13 cm. Scapes 1 or 2, arising from near apex of pseudobulb, erect, 23–40 cm, slender, with several lanceolate sterile bracts; rachis 6–14 cm, laxly 4–10-flowered; floral bracts persistent, lanceolate, 13–20 mm, abaxially puberulent, apex long acuminate. Flowers pink; pedicel and ovary 15–20 mm, densely puberulent. Sepals similar, ovate-lanceolate, 11–16(–20) × ca. 5 mm, abaxially puberulent, 5-veined, apex cuspidate; lateral sepals oblique. Petals linear, 11–13 × 1–2(–3) mm, 1–3-veined, apex acuminate; lip adnate to base of column wings, 11–13 × 6–11 mm, spurless, 3-lobed; lateral lobes oblong-falcate, 7–9 mm across their apices, margin entire, apex obtuse; mid-lobe rhombic-elliptic to obovate-cuneate, apical margin irregularly dentate or fringed, apex acute; disk without lamellae or calli. Column ca. 6 mm, glabrous; rostellum 3-lobed; anther cap narrowly ovate-cordate, ca. 4 mm; pollinia clavate, ca. 2 mm, with conspicuous caudicles; viscidium linear, ca. 1 mm. Fl. Jun–Aug. 2n = 40, 40 + 1B, 42.

Evergreen broad-leaved forests; 1200–3000 m. SE Xizang, SE and W Yunnan [Bhutan, NE India, Japan, Nepal, N Vietnam].


反瓣虾脊兰 fan ban xia ji lan

Alismorkis reflexa (Maximowicz) Kuntze; Calanthe puberula Lindley var. reflexa (Maximowicz) M. Hiroe; C. similis Schlechter; Paracalanthe reflexa (Maximowicz) Kuôd.

Plants 20–45 cm tall. Rhizome inconspicuous. Pseudobulbs short, ca. 1 cm in diam., sometimes inconspicuous. Leaves 4 or 5, basal, well developed at anthesis, not deciduous; blade elliptic, 15–20 × 3–6.5 cm, apex acute; petiole-like base 2–4 cm. Scapes 1 or 2, erect, 20–40 cm, puberulent; rachis 5–20 cm, laxly 10–18-flowered; floral bracts persistent, narrowly lanceolate, 18–24 mm, glabrous, apex acuminate. Flowers pale purplish pink; pedicel and ovary ca. 20 mm, glabrous. Sepals similar, strongly reflexed, ovate-lanceolate, 15–20 × ca. 5 mm, abaxially puberulent, 5-veined, apex cuspidate-acute; lateral sepals oblique. Petals reflexed, linear, 15–18 × 1–3 mm, 1–3-veined, apex acuminate; lip adnate to base of column wings, 9–11 × 7–10 mm, spurless, 3-lobed; lateral lobes oblong-falcate, ca. 8 mm across their apices, margin entire, apex obtuse; mid-lobe subelliptic or obovate-cuneate, ca. 8 × 8 mm, apical margin irregularly dentate, apex acute; disk without lamellae or calli. Column ca. 6 mm, glabrous; rostellum 3-lobed; mid-lobe shorter and sharply tooth-shaped. Fl. May–Jun. 2n = 40, 42.

Evergreen broad-leaved forests, mossy rocks on stream sides or along valleys; 600–2500 m. Anhui, N Guangdong, N Guangxi, Guizhou, Hunan, Jiangxi, W Sichuan, Taiwan, NE and SW Yunnan, Zhejiang [Japan, Korea].


流苏虾脊兰 liu su xia ji lan

Alismorkis alpina (J. D. Hooker ex Lindley) Kuntze; Calanthe buccinifera Rolfe; C. fimbriata Franchet; C. fimbriata-marginata Fukuyama; C. schlechteri H. Hara.

Plants 25–50 cm tall. Rhizome inconspicuous. Pseudobulbs narrowly conic, small, ca. 7 mm in diam. Leaves 3, well developed at anthesis, not deciduous; blade elliptic or obovate-elliptic, 11–26 × 3–6 (–9) cm, apex obtuse-rounded and mucronate or acute; petiole-like base sheathing, sometimes forming a pseudostem to ca. 7 cm. Scape 1 or rarely 2, arising from leaf axis, erect, 30–50 cm, sparsely puberulent; rachis 3–12 cm, laxly to densely 3- to more than 10-flowered; floral bracts persistent, narrowly lanceolate, ca. 1.5 cm, glabrous, apex acuminate. Flowers pale yellow-green, with pink-purple blotches and striations; pedicel and ovary ca. 20 mm, sparsely puberulent. Dorsal sepal subelliptic, 15–20 × 5–6 mm, 5-veined, apex aristate; lateral sepals ovate-lanceolate, 15–20 × 6–7 mm, 5-veined, apex aristate. Petals narrowly oblong to ovate-lanceolate, 12–13 × 4–4.5 mm, 3-veined, apex acute to acuminate; lip basally adnate to base of column wings, pale greenish white, basal half yellow, apical half with purplish red stria-
Calanthe wardii W. W. Smith.

Plants ca. 80 cm tall. Rhizome inconspicuous. Pseudobulbs conic, ca. 1 cm in diam., enclosed in leaf sheaths. Leaves usually 3, not well developed at anthesis, suberect, not deciduous; blade ensiform or narrowly oblong-oblanceolate, ca. 32 × 2.5–4.5 cm, apex acute; petiole-like base usually forming a pseudostem to ca. 7 cm long and ca. 1.5 cm in diam. Scape arising from leaf axil, erect to 70 cm, stout, puberulent, with 1 or 2 tubular sheaths; rachis 9–20 cm, laxly 10–20-flowered; floral bracts persistent, reflexed, narrowly lanceolate, 10–30 mm, sparsely puberulent. Flowers pale yellow to yellowish green, turning black when dried; pedicel and ovary ca. 10 mm, puberulent. Dorsal sepal reflexed, ovate-lanceolate, 9–10 × 3.5–4 mm, abaxially slightly puberulent, apex obtuse; lateral sepals reflexed, ovate, oblique, 9–10 × 4.5–5 mm, abaxially slightly puberulent, apex obtuse. Petals narrowly elliptic or ovate-lanceolate, 8–9 × 2.5–3 mm, midvein conspicuous, apex obtuse; lip yellowish white, reniform, ca. 5 × 13 mm, base adnate to column wings, unlobed, entire or slightly erose at margin, apex emarginate and mucronate in sinus; disk with 3 crested, papillose lamellae; spur cylindric, 8–10 × ca. 1.3 mm, outside puberulent, ± attenuate toward apex. Column white, ca. 3 mm, thick, dilated toward apex, puberulent, wings decurrent to base of lip; rostellum 2-lobed; lobes ca. 1 mm; anther small; pollinia unequal in size, 4 subovoid and others subclavate; viscidium suborbicular. Fl. May–Jun.

Calanthe wardii

Plants, grassy slopes; 1500–3500 m. S Gansu, Shaanxi, Sichuan, Taiwan, S and SE Xizang, W Yunnan [Bhutan, NE India, Japan, Nepal].


四川虾脊兰 si chuan xia ji lan

Calanthe wardii W. W. Smith.

Plants ca. 80 cm tall. Rhizome inconspicuous. Pseudobulbs conic, ca. 1 cm in diam., enclosed in leaf sheaths. Leaves usually 3, not well developed at anthesis, suberect, not deciduous; blade ensiform or narrowly oblong-oblanceolate, ca. 32 × 2.5–4.5 cm, apex acute; petiole-like base usually forming a pseudostem to ca. 7 cm long and ca. 1.5 cm in diam. Scape arising from leaf axil, erect, to 70 cm, stout, puberulent, with 1 or 2 tubular sheaths; rachis 9–20 cm, laxly 10–20-flowered; floral bracts persistent, reflexed, narrowly lanceolate, 10–30 mm, sparsely puberulent. Flowers pale yellow to yellowish green, turning black when dried; pedicel and ovary ca. 10 mm, puberulent. Dorsal sepal reflexed, ovate-lanceolate, 9–10 × 3.5–4 mm, abaxially slightly puberulent, apex obtuse; lateral sepals reflexed, ovate, oblique, 9–10 × 4.5–5 mm, abaxially slightly puberulent, apex obtuse. Petals narrowly elliptic or ovate-lanceolate, 8–9 × 2.5–3 mm, midvein conspicuous, apex obtuse; lip yellowish white, reniform, ca. 5 × 13 mm, base adnate to column wings, unlobed, entire or slightly erose at margin, apex emarginate and mucronate in sinus; disk with 3 crested, papillose lamellae; spur cylindric, 8–10 × ca. 1.3 mm, outside puberulent, ± attenuate toward apex. Column white, ca. 3 mm, thick, dilated toward apex, puberulent, wings decurrent to base of lip; rostellum 2-lobed; lobes ca. 1 mm; anther small; pollinia unequal in size, 4 subovoid and others subclavate; viscidium suborbicular. Fl. May–Jun.

Forests, grassy slopes; 1500–3500 m. S Gansu, Shaanxi, Sichuan, Taiwan, S and SE Xizang, W Yunnan [Bhutan, NE India, Japan, Nepal].


天府虾脊兰 tian fu xia ji lan

Plants 30–60 cm tall. Rhizome inconspicuous. Pseudobulbs conic, ca. 2 cm in diam., enclosed in leaf sheaths. Leaves 3, well developed and spreading at anthesis, not deciduous; blade oblong, ca. 30 × 4–7 cm, apex acute; petiole-like base sheathing, ca. 10 cm. Scape arising from leaf axil, erect, to 70 cm, stout, densely puberulent, with 2 tubular sheaths above middle; rachis 20–32 cm, laxly ca. 20-flowered; floral bracts persistent, lanceolate, 10–25 mm, abaxially densely puberulent. Flowers yellowish green; pedicel and ovary ca. 15 mm, densely puberulent. Dorsal sepal elliptic, 9–11 × 5–5.5 mm, abaxially densely villous, 5-veined, apex acute; lateral sepals oblong, slightly oblique, 11–13 × ca. 6 mm, abaxially densely villous, 5-veined, apex acute. Petals obovate-lanceolate or spatulate, ca. 10 × 4–4.5 mm, abaxially densely villous, 3-veined, apex acute; lip adnate to entire length of column wings, reniform, ca. 6 × 12 mm, ± fleshy, unlobed, undulate at margin, apex slightly emarginate and with a recurved mucro in sinus; disk with 3 slightly fleshy ridges at base, irregularly papillose; spur cylindric, 11–14 mm, slightly dilated toward apex. Column 7–8 mm, thick, dilated toward apex, densely villous, wings decurrent to base of lip; rostellum 2-lobed; lobes ca. 1 mm; pollinia narrowly ovoid, equal in size, ca. 1 mm. Fl. Oct–Dec.

Mixed forests; 2400–2600 m. SW Yunnan [N Thailand].


匙瓣虾脊兰 chi ban xia ji lan

Plants ca. 30 cm tall. Rhizome inconspicuous. Pseudobulbs very small, enclosed in leaf sheaths. Leaves 2 or 3, not deciduous; blade oblongate, ca. 30 × 5.5–8 cm, abaxially puberulent, apex acute; blade subacute; petiole-like base 14–22 cm, usually forming a pseudostem 15–17 × ca. 1 cm. Scape arising from leaf axil, erect, 20–22 cm, puberulent; rachis 6–12 cm, ca. 10-flowered; floral bracts persistent, lanceolate, 5–7 mm, puberulent. Flowers white, tinged with pale purple, thinly textured; pedicel and ovary ca. 18 mm, puberulent. Dorsal sepal ovate-lanceolate, ca. 16 × 7 mm, abaxially puberulent, 5-veined, apex acute; lateral sepals ovate, slightly oblique, ca. 18 × 9 mm, abaxially puberulent, 5-veined, apex acute. Petals oblong, ca. 8 × 15 mm, base broadly truncate, unlobed, apical margin finniate, apex emarginate; spur straight, yellow or pale violet, cylindrical, 15–35 × 3–5 mm, apex obtuse. Column white, ca. 8 mm, dilated at apex, glabrous; rostellum 2-lobed; lobes ca. 1 mm; pollinia obovoid, ca. 1.3 mm, with short caudicles; viscidium suborbicular. Fl. Nov. 2

Forests, grassy slopes; 1500–3500 m. S Gansu, Shaanxi, Sichuan, Taiwan, S and SE Xizang, W Yunnan [Bhutan, NE India, Japan, Nepal].

Damp places in dense forests; 1300–1700 m. Chongqing, S Gansu, W Guizhou, NE and S Sichuan.


天府虾脊兰 tian fu xia ji lan

Plants 30–45 cm tall. Pseudobulbs short, partially covered with sheaths. Leaves 4 or 5, not deciduous; blade narrowly oblong, 30–40 × 1.5–2.6 cm, apex acute; petiole-like base sheathing, ca. 15 cm, usually forming a pseudostem 3–4 cm. Scape arising from leaf axil, to 65 cm, densely puberulent, with a sheath near middle; rachis ca. 20 cm, laxly many flowered; floral bracts persistent, narrowly lanceolate, 15–20 mm, glabrous, apex acute. Flowers yellowish green, tinged with brown, opening widely; pedicel and ovary ca. 20 mm, densely puberulent. Sepals similar, narrowly ovate-lanceolate, 16–25 × 4.2–6 mm, abaxially sparsely puberulent, 5-veined, apex acute; lateral sepals somewhat oblique, abaxially sparsely puberulent only at base. Petals linear, 12–24 × 2–2.4 cm, glabrous, 1–3-veined, apex acute; lip adnate to entire length of column wings, 8–12 × 6–11 mm, 3-lobed; lateral lobes ovate-triangular, small, apex acute; mid-lobe purplish red, rhombic-ovobovate, 6–11 × 6–11 mm, margin undulate and slightly erose, apex acute; disk glabrous or sparsely puberulent; spur slightly curved, cylindric, ca. 6 × 1 mm, outside puberulent. Column ca. 5 mm, dilated toward apex, sparsely puberulent; anther cap beaked; pollinia narrowly ovoid, unequal in size; rostellum 2-lobed; lobes ca. 1.7 mm. Fl. Jul–Aug.

Plants, shrubby slopes; 1000–1800 m. N and SW Sichuan [Bhutan, NE India, N Myanmar].

Mixed forests; 2400–2600 m. SW Yunnan [N Thailand].

Damp places in dense forests; 1300–1700 m. Chongqing, S Gansu, W Guizhou, NE and S Sichuan.
15 × 4–5 mm, glabrous, 3-veined, apex acute; lip adnate to entire length of column wings, elliptic, ca. 8 × 14 mm, base subtruncate, margin unlobed, apical margin undulate, apex emarginate and mucronate in sinus; disk with 3 or 5 fleshy lamellae; lamellae thickened toward apex, sometimes minutely crested; spur straight, cylindrical, ca. 28 mm, attenuate toward apex, outside puberulent, densely villous around mouth. Column ca. 5 mm, thick, dilated toward apex, puberulent, wings slightly decurrent to lip and connecting to lamellae on disk; rostellum 2-lobed; lobes ca. 2.1 mm; anther cap beaked; clinal-drumium densely puberulent; pollinia obovoid, ca. 2 mm; viscidium suboblong, small. Fl. Mar.

Damp places in forests; ca. 1700 m. NW Guizhou, SE Yunnan [N Vietnam].


二裂虾脊兰 er lie xia ji lan

Alismorkis biloba (Lindley) Kuntze.

Plants to 60 cm tall. Pseudobulbs cylindric, ca. 10 × 0.8 cm, 4- or 5-noded, internodes ca. 2 cm. Leaves 2 or 3, well developed at anthesis, not deciduous; blade broadly elliptic, 12–17 × 7–8 cm, papery, apex mucronate; petiole-like base sheathing, ca. 8 cm. Scape arising from leaf axil, erect, ca. 50 cm, densely puberulent, with 2 tubular sheaths below middle; rachis ca. 11 cm, laxly more than 10-flowered; floral bracts persistent, narrowly lanceolate, 10–17 mm, glabrous, apex acuminate. Flowers large, purplish with a yellowish lip; pedicel and ovary 20–25 mm, densely puberulent. Dorsal sepal broadly ovate, ca. 15 × 6–7 mm, abaxially puberulent, 5-veined, apex aristate; lateral sepals ovate, oblique, ca. 15 × 7–8 mm, abaxially densely puberulent, 5-veined, apex aristate. Petals oblong, ca. 15 × 4.5 mm, glabrous, 3-veined, apex aristate; lip adnate to base of column wings, subreniform, ca. 15 × 20 mm, clawed, deeply 2-lobed, apiculate in sinus; lobes subrhombic, margin erose, apex obtuse; disk without lamellae and other appendages; spur narrowly conic, ca. 2 mm, apex slightly obtuse. Column ca. 5 mm, thick, slightly dilated toward apex, glabrous; rostellum 2-lobed; pollinia slightly narrowly ovoid, similar in size; viscidium slightly oblong, ca. 1 mm. Fl. Oct. 2n = 38, 48, 80.

Thickets on streamsides; ca. 1800 m. SW and W Yunnan [Bhutan, NE India, Myanmar, Nepal].


独龙虾脊兰 du long xia ji lan

Plants ca. 50 cm tall. Rhizome ca. 6.5 cm, ca. 1 cm in diam. Pseudobulbs subovoid, ca. 1.5 × 2 cm, enclosed in sheaths. Leaves 3, subbasal, well developed at anthesis, not deciduous; blade elliptic or obovate-elliptic, 16–22 × 4.5–7.5 cm, glabrous, apex acute or acuminate; petiole-like base sheathing, 14–18 cm, usually forming a pseudostem. Scape axillary, to 38 cm, densely puberulent, with or without sheaths; rachis ca. 16 cm, laxly 20–25-flowered; floral bracts persistent, white, lanceolate, 9–11 mm, abaxially puberulent. Flowers yellow-green, lip yellow and flushed white; pedicel and ovary 18–25 mm, densely puberulent. Dorsal sepal oblong-elliptic, ca. 18 × 6 mm, apex acute; lateral sepals elliptic, ca. 15 × 4 mm, apex mucronate. Petals obovate-lanceolate, ca. 15 × 5 mm; lip adnate to column wing, base clawed, deeply 3-lobed; lateral lobes narrowly oblong, ca. 6 × 2 mm; mid-lobe reniform, ca. 5 × 7.5 mm, apex broadly emarginate and mucronate in sinus; disk with 3 golden yellow, globose, wartlike calli near base; spur straight, yellow, cylindrical, ca. 5.5 mm, outside sparsely puberulent. Column ca. 8 mm, glabrous; rostellum 2-lobed. Fl. Apr.

● Mixed forests; 1900–2300 m. SW Yunnan.


中华虾脊兰 zhong hua xia ji lan

Plants 25–34 cm tall. Rhizome short or inconspicuous. Pseudobulbs ovoid-conic, 1–2 × ca. 1 cm. Leaves 4, well developed and spreading at anthesis, not deciduous; blade elliptic, 12–22 × 4–7.5 cm, both surfaces densely pubescent, apex acute; petiole-like base 3–7 cm. Scape arising from leaf axil, erect, to 34 cm, densely puberulent; rachis 2–3 cm, laxly ca. 10-flowered; floral bracts persistent, green, ovate-lanceolate, ca. 15 mm, abaxially densely puberulent. Flowers purplish red; pedicel with ovary ca. 20 mm, densely puberulent. Sepals similar, elliptic, ca. 18 × 8 mm, abaxially densely puberulent, 3- or 4-veined, apex acute. Petals elliptic, ca. 13 × 7 mm, abaxially sparsely puberulent near apex, 3- or 4-veined, apex acute; lip adnate to entire length of column wings, 8–9 mm, 3-lobed; lateral lobes suborbicular or square, ca. 2.2 × 2.1 mm; mid-lobe flabellate, ca. 9 mm wide, base cuneate, apex slightly emarginate; disk with 4 brown spots, base with 3 yellow wartlike calli; spur narrowly clavate, ca. 25 mm, outside sparsely puberulent. Column thick, ca. 5 × 4 mm, wings sparsely puberulent; rostellum 2-lobed; anther cap narrow, beaked. Fl. Jul–Aug.

● Evergreen broad-leaved forests; ca. 1100 m. SE Yunnan.


长距虾脊兰 chang ju xia ji lan

Centrosis sylvatica Thouars, Hist. Orchid. ad t. 35, 36. 1822; Alismorkis masuca (D. Don) Kunz; A. textorii (Miquel) Kunz; Bletia masuca D. Don; B. sylvatica (Thouars) Bojer; Centrosis furcata Bateman ex Lindley f. masuca (D. Don) M. Hiroe; C. furcata f. textorii (Miquel) M. Hiroe; C. kintaroi Yamamoto; C. longicalcarata Hayata ex Yamamoto; C. masuca (D. Don) Lindley; C. masuca var. sinensis Rendle; C. seikookaensis Yamamoto; C. textorii Miquel; C. textorii var. longicalcarata (Hayata ex Yamamoto) Garay & H. R. Sweet; Zoduba masuca (D. Don) Buchanan-Hamilton.

Plants to 80 cm tall, without distinct rhizome. Pseudobulbs conic, 1–2 × ca. 1 cm. Leaves 3–6, well developed and spreading at anthesis, not deciduous; blade elliptic to obovate, 20–40 × ca. 10.5 cm, abaxially sparsely pubescent, apex acute or acuminate; petiole-like base 11–23 cm. Scape arising from leaf axil, erect, 45–75 cm, stout, with 2 tubular sheaths below middle; rachis laxly to subdensely many flowered; floral bracts persistent, lanceolate, 10–18 mm, densely puberulent. Flowers...
pale pinkish purple with purple lip sometimes flushed orange; pedicel and ovary ca. 35 mm, densely puberulent. Dorsal sepal elliptic, 18–23 × 6–10 mm, abaxially sparsely puberulent, 5–7-veined, apex acute; lateral sepals oblong, 20–28 × 6–9 mm, abaxially sparsely puberulent, 5–7-veined, apex acute and shortly caudate. Petals obovate or broadly obovate, 15–20 × 9–12 mm, 5-veined, apex obtuse or subacute; lip adnate to entire length of column wings, 11–17 × 6–14 mm, 3-lobed; lateral lobes falcate-lanceolate, ca. 5 × 1.5–2 mm, attenuate toward apex; mid-lobe flabellate or reniform, 10–14 mm wide, base shortly clawed, apex emarginate or shallowly 2-lobed; disk with 3 rows of small, yellow, crested warts at base; spur cylindric, 25–50 mm, outside sparsely puberulent, apex obtuse. Column ca. 5 mm, dilated at apex, nearly glabrous; rostellum 2-lobed; lobes ca. 0.7 mm; pollinia narrowly obovoid, equal in size, ca. 2.25–50 mm, outside sparsely puberulent, apex acute. Flowers white; pedicel and ovary 10–14 mm, puberulent. Sepals similar, ovate-elliptic, 9–11 × 4–5(–7) mm, abaxially puberulent, 5-veined, apex acute. Petals subpatulatate, 9–11 × 3–5 mm, glabrous, 3-veined, apex truncate and slightly mucronate; lip adnate to entire length of column wings, 8–10 × 6–8 mm, deeply 3-lobed; lateral lobes suboblong or obliquely ovate; mid-lobe subreniform, divided by a deep triangular sinus into 2 lobules, apiculate in sinus; lobules divergent, subobovate; disk with a semicircular cluster of many tuberous, wartlike calli at base; spur straight, cylindric, 7–8 mm, outside sparsely puberulent. Column ca. 3 mm, dilated toward apex, sparsely puberulent; rostellum 2-lobed, lobes ca. 1.2 mm; pollinia subclavate, ca. 1.5 mm; viscidium suborbicular, small. Fl. Apr–Sep. 2n = 20, 40, 42, 52.


22. Calanthe ×dominyi Lindley, Gard. Chron. 1858: 4. 1858 ["domini"].

**Calanthe albolongicalcarata** S. S. Ying; *C. matsumurana* Schlechter.

Plants ca. 50 cm tall. Pseudobulbs very small, completely enclosed in leaf sheaths. Leaves 5–8, well developed and spreading at anthesis, not deciduous; blade 15–25 × 5–8 cm, glabrous or sometimes with hairs on veins, apex acute or acuminate; petiole-like base 3–9 cm. Scape arising from leaf axil, 35–45 cm, 3–4 mm in diam., with 2 or 3 sheaths. Leaves 2 or 3, not well developed and spreading at anthesis, not deciduous; blade elliptic or elliptic-lanceolate, 11–17 × 6–14 mm, 3-lobed; lateral lobes falcate-lanceolate, ca. 5 × 1.5–2 mm, attenuate toward apex; mid-lobe flabellate or reniform, 10–14 mm wide, base shortly clawed, apex emarginate or shallowly 2-lobed; disk with 3 rows of small, yellow, crested warts at base; spur cylindric, 25–50 mm, outside sparsely puberulent, apex obtuse. Column ca. 5 mm, dilated at apex, nearly glabrous; rostellum 2-lobed; lobes ca. 0.7 mm; pollinia narrowly obovoid, equal in size, ca. 2.25–50 mm, outside sparsely puberulent, apex acute. Column ca. 3 mm, dilated toward apex, sparsely puberulent; rostellum 2-lobed, lobes ca. 1.2 mm; pollinia subclavate, ca. 1.5 mm; viscidium suborbicular, small. Fl. May–Jul.

Broad-leaved forests, shaded and damp places on grassy slopes; 700–1300 m. NW and W Guangxi, Guizhou, Yunnan [Bangladesh, Bhutan, Cambodia, NE India, Laos, N Thailand, Vietnam].


**Calanthe ×shweliensis** W. W. Smith.

Plants 25–50 cm tall. Pseudobulbs subconic, ca. 5 mm in diam., with 2 or 3 sheaths. Leaves 2 or 3, not well developed and spreading at anthesis, not deciduous; blade elliptic or elliptic-lanceolate, (9–)12–14(–22) × (2.5–)3–4(–5) cm, apex acuminate; petiole-like base short, often forming a pseudostem ca. 5 cm. Scape arising from previous year’s leafless pseudobulb, erect, puberulent; rachis 2–5 cm, densely few to many flowered; floral bracts persistent, ovate-lanceolate, ca. 8 mm, abaxially puberulent. Flowers white; pedicel and ovary 10–14 mm, puberulent. Sepals similar, ovate-elliptic, 9–11 × 4–5(–7) mm, abaxially puberulent, 5-veined, apex acute. Petals subpatulatate, 9–11 × 3–5 mm, glabrous, 3-veined, apex truncate and slightly mucronate; lip adnate to entire length of column wings, 8–10 × 6–8 mm, deeply 3-lobed; lateral lobes suboblong or obliquely ovate; mid-lobe subreniform, divided by a deep triangular sinus into 2 lobules, apiculate in sinus; lobules divergent, subobovate; disk with a semicircular cluster of many tuberous, wartlike calli at base; spur straight, cylindric, 7–8 mm, outside sparsely puberulent. Column ca. 3 mm, dilated toward apex, sparsely puberulent; rostellum 2-lobed, lobes ca. 1.2 mm; pollinia subclavate, ca. 1.5 mm; viscidium suborbicular, small. Fl. May–Jul.

Plants usually clustered, 32–70 cm tall, without distinct rhizome. Pseudobulbs often enclosed in leaf sheaths. Leaves 3 or 4, well developed and spreading at anthesis, not deciduous; blade ensiform or lorate, 18–65 × 0.8–2(–5) cm, glabrous, with 3 main veins, apex acute; petiole-like base inconspicuous or sometimes forming a pseudostem 4–10 cm. Scape arising from leaf axil, erect, 30–120 cm, stout, densely puberulent; rachis 8–20(–30) cm, subdensely many flowered; floral bracts persistent, reflexed, narrowly lanceolate, 10–15 mm, abaxially puberulent. Flowers yellowish green or white, sometimes tinged purple. Sepals similar, reflexed, subelliptic, 6–9 × ca. 4 mm, abaxially nearly glabrous or densely puberulent, 5-veined, apex acute or obtuse. Petals reflexed, narrowly oblong-oblancoate, 6–9 × 1.8–2.2 mm, glabrous, 3-veined, base clawed, apex obtuse or acute; lip adnate to entire length of column wings, broadly triangular, 6–9 × 4–9 mm, 3-lobed; lateral lobes oblong, falcate-oblong, or ovate-triangular, ca. 9 mm across their apices, apex obliquely truncate and obtuse; mid-lobe divided by a deep sinus into 2 lobules; lobules divergent, suboblong, narrower than lateral lobes; disk with 3 clusters of wartlike calli extending almost to sinus of mid-lobe; spur curved, cylindric, 5–12 mm, outside sparsely puberulent, densely puberulent. Column

ca. 3 mm, thick, dilated toward apex, nearly glabrous or sparsely puberulent; rostellum 2-lobed; lobes ca. 1 mm; pollinia nearly pear-shaped or obovoid, equal in size, ca. 1 mm, with short caudicles; viscidium small. Capsule ovoid, ca. 13 × 7 mm. Fl. Jun-Jul, fr. Sep-Oct. 2n = 40, 44.

Forests, shaded places along valleys; 500–3300 m. S Gansu, Guizhou, Hubei, NW Hunan, S Shaanxi, Sichuan, Taiwan, SE Xizang, SE and W Yunnan [N India, Japan, Nepal, Vietnam].


**西南虾脊兰**  xi nan xia ji lan

*Alismorkis herbacea* (Lindley) Kuntze; *Calanthe brevicolumna* Hayata.

Plants 30–70 cm tall. Rhizome inconspicuous. Pseudobulbs nearly round or ovoid, very cylindrical, 1–2.5 cm × 5–15 mm, with 2 sheaths. Leaves 3 or 4, well developed and spreading at anthesis, not deciduous; blade elliptic or elliptic-lanceolate, 15–30 × ca. 9 cm, abaxially puberulent, 3- or 4-veined, apex acute or acuminate; petiole-acuminate; petiole-like base 10–20 cm, slender. Scapes arising from leaf axil, erect, to 70 cm, puberulent; rachis 8–15 cm, laxly ca. 10-flowered; floral bracts persistent, lanceolate, ca. 10 mm, abaxially puberulent. Flowers yellowish green; pedicel and ovary ca. 30 mm, puberulent. Dorsal sepal reflexed, obovate-lanceolate, ca. 15 × 7 mm, abaxially puberulent, 5-veined, apex obtuse and mucronate; lateral sepals reflexed, elliptic, oblique, ca. 15 × 6 mm, abaxially puberulent, 5-veined, base clawed, apex acute. Petals reflexed, subpatulate, ca. 12 × 2–2.5 mm, glabrous, apex obtuse; lip adnate to entire length of column wings, deeply 3-lobed; lateral lobes ovate, 6–7 × ca. 5 mm, apex obliquely truncate; mid-lobe divided by a deep sinus into 2 lobules; lip adnate to entire length of column wings, spreading, deeply 3-lobed; lateral lobes linear or narrowly oblong, ca. 8 × 2 mm, glabrous, apex obtuse and mucronate; lip adnate to entire length of column wings, spreading, deeply 3-lobed; lateral lobes ovate-lanceolate, ca. 10 × 5 mm, slightly recurved, broadly ovate-lanceolate, 5–10 mm, abaxially sparsely puberulent. Flowers white, sometimes tinged purplish green; dorsal sepal reflexed, elliptic, ca. 10 × 4.5 mm, abaxially puberulent, 5-veined, apex obtuse and shortly aristate; lateral sepals reflexed, broadly ovate-elliptic, ca. 10 × 5.5 mm, abaxially puberulent, 5-veined, apex obtuse and shortly aristate. Petals ± reflexed, subpatulate or obovate, slightly smaller than sepals, glabrous, 3-veined, apex subtruncate and mucronate; lip adnate to entire length of column wings at base, white, ca. 16 × 16 mm, 3-lobed; lateral lobes flabellate, ca. 7 × 7 mm, apex rounded; mid-lobe divided by a deep sinus into 2 lobules, apiculate in sinus; lobules obovate, ca. as large as lateral lobes, margin slightly erose, apex truncate; disk with 3 rows of small, golden yellow, wartlike calli at base; spur yellowish green, cylindrical, 15–19 mm, outside sparsely puberulent, attenuate toward apex. Column white, ca. 5 mm; rostellum horn-shaped, 2-lobed; anther cap white, beaked; pollinia narrowly obovoid or narrowly clavate, subequal in size, ca. 2 mm, with short caudicles; viscidium subsquare. Capsule ca. 30 mm. Fl. Apr–May. 2n = 45*.

Forests; 500–1200 m. N Guangdong, SW Guangxi, SW Guizhou, SE Yunnan [Vietnam].

27. Calanthe alismatifolia Lindley, Fol. Orchid. 6–7(Calanthe): 8. 1855 [“alismatifolia”].

**泽泻虾脊兰**  ze xie xia ji lan

*Alismorkis alismatifolia* (Lindley) Kuntze; *Calanthe austrostilbiata* (Bateman ex Lindley) Hayata var. *alismatifolia* (Lindley) M. Hiroe; *C. furcata* Bateman ex Lindley var. *alismatifolia* (Lindley) M. Hiroe; *C. furcata* f. *fauriei* (Schlechter) M. Hiroe; *C. japonica* Blume ex Miquel; *C. nigropunctulata* Fukuyama.

Plants 20–45 cm tall. Rhizome inconspicuous. Pseudobulbs cylindrical, 1–3 cm × 3–5 mm. Leaves 3–6, basal, well developed and spreading at anthesis, not deciduous; blade elliptic to ovate-elliptic, 10–23 × 4–12 cm, glabrous or abaxially sometimes with short hairs, apex acute; petiole-like base 6–20 cm, slender. Scapes 1 or 2, arising from leaf axils, erect, 10–28 cm, slender, densely puberulent; rachis 3–4 cm, subdensely to densely 3- to more than 10-flowered; floral bracts persistent, slightly recurved, broadly ovate-lanceolate, 5–10 mm, abaxially sparsely puberulent. Flowers white, sometimes tinged purplish violet; pedicel and ovary 10–20 mm, puberulent. Sepals similar, subobovate, ca. 10 × 6 mm, abaxially pilose, 5-veined. Petals suborbicular, ca. 8 × 4 mm, glabrous, 3-veined, apex obtuse; lip adnate to entire length of column wings, spreading, deeply 3-lobed; lateral lobes elliptic, ca. 8 × 2 mm, apex rounded; mid-lobe flabellate, ca. 17 × 12 mm, base clawed, apex subtruncate, divided by a deep sinus into 2 lobules; lobules suborbicular, much larger than lateral lobes, 5–6 mm wide; margin entire or erose, apex truncate-obtuse; disk with several yellow, wartlike calli at base; spur yellowish green, 15–19 mm, outside sparsely puberulent, attenuate toward apex. Column white, ca. 5 mm; rostellum horn-shaped, 2-lobed; anther cap white, beaked; pollinia narrowly obovoid or narrowly clavate, subequal in size, ca. 2 mm, with short caudicles; viscidium subsquare. Capsule ca. 30 mm. Fl. Apr–May. 2n = 45*.

Evergreen broad-leaved forests; 700–2100 m. Guangxi, Guizhou, Hubei, Hunan, Sichuan, Taiwan, SE Xizang, SE and W Yunnan, Zhejiang [Bhutan, NE India, Japan, Vietnam].

三福虾脊兰 san zhe xia ji lan


Plants 40–100 cm tall. Rhizome inconspicuous. Pseudobulbs ovoid-cylindric, 1–3 × 1–2 cm, with 2 or 3 sheaths. Leaves 3 or 4, well developed and spreading at anthesis, not deciduous; blade elliptic or elliptic-lanceolate, 20–60 × 5–12 cm, glabrous or sometimes puberulent abaxially, apex acute; petiole-like base 10–18 cm. Scape arising from leaf axil, erect, to 51 cm, densely puberulent. Dorval sepals recurved, subelliptic, 10–12 × 4.5–5.5 mm, abaxially puberulent, 5-veined, apex acute or apiculate; lateral sepals recurved, obovate-lanceolate, slightly oblique, 10–13 × 5–6 mm, abaxially puberulent, 5-veined. Petals recurved, obovate-lanceolate, 8–10 × 3–4.5 mm, abaxially puberulent, 3-veined, base clawed; lip adnate to entire length of column wings, 12–18 × ca. 14 mm, deeply 3-lobed; lateral lobes oblong to narrowly obovate-cuneate, ca. 7 × 3 mm, apex obtuse; mid-lobe divided by a deep sinus into 2 lobules, shortly apiculate in sinus; lobules divergent, linear-oblong, ca. as large as lateral lobes, ca. 3 mm wide; disk with 3 or 4 rows of small, golden or orange-red, wartlike calli at base; spur straight, white, cylindrical, (6–)12–15 mm, slender, outside sparsely puberulent, apex obtuse. Column ca. 5 mm, dilated at apex, sparsely puberulent; rostellum 2-lobed; lobes suboblong, ca. 2 mm, apex subtruncate; pollinia clavate, unequal in size, 2–4 mm, with conspicuous caudicles; viscidium subelliptic, small. Fl. Apr–May. 2n = 18, 20, 40, 42.

Evergreen broad-leaved forests; 700–2400 m. S Fujian, Guangdong, Guangxi, Hainan, Taiwan, N and SE Yunnan [Bhutan, Cambodia, India, Indonesia, Japan, Laos, Malaysia, Philippines, Sri Lanka, Vietnam; Australia, Madagascar, SW Pacific islands].


峨边虾脊兰 e bian xia ji lan

Plants to 80 cm tall. Rhizome inconspicuous. Pseudobulbs conic, very small, ca. 0.8 cm in diam., with 2 or 3 sheaths. Leaves 2 or 3, well developed and spreading at anthesis, not deciduous; blade elliptic, 30–35 × ca. 11 cm, glabrous, apex acuminate; petiole-like base ca. 15 cm. Scape erect, arising from leaf axil, puberulent; rachis laxly many flowered; floral bracts persistent, lanceolate or elliptic-lanceolate, shorter than ovary, puberulent, apex acuminate. Flowers white, with green lip; pedicel and ovary 15–17 mm, puberulent. Sepals similar, narrowly elliptic-oblong, ca. 20 × 6 mm, abaxially sparsely puberulent, 7-veined, apex acuminate; lateral sepals narrowly elliptic-oblong, ca. 5 × 3 mm; viscidium suboblong, small. Fl. May. 2n = 18, 20, 40, 42.

Evergreen broad-leaved forests; ca. 1500 m. C Sichuan.


细花虾脊兰 xi hua xia ji lan

Alismorkis manniil (J. D. Hooker) Kunze; Calanthe brachychila Gagnepain; C. pusilla Finet.

Plants 30–45 cm tall. Rhizome inconspicuous. Pseudobulbs conic, ca. 1 cm in diam., with 2 or 3 sheaths. Leaves 3–5, not well developed at anthesis, not deciduous; blade oblong-oblong, 18–35 × 3–4.5 cm, plicate, abaxially puberulent, base sessile or attenuate into a petiole-like stalk, apex acute; petiole-like base 5–10 cm, usually forming a pseudostem 5–7 cm. Scape arising from leaf axil, erect, to 51 cm, densely puberulent; rachis 4–10 cm, 10– or more flowered; floral bracts persistent, lanceolate, 2–4 mm, glabrous. Flowers small, dark brown, with golden yellow lip; pedicel and ovary 5–7 mm, densely puberulent. Sepals similar, ovate-lanceolate or oblong, concave, 7–9 × 2.5–4.5 mm, abaxially densely puberulent, 3–5-veined, apex acute; lateral sepals ± oblique. Petals obovate-lan-
ceolate or oblong, 6–7 × 1.2–2 mm, glabrous, 1–3-veined, apex acute; lip adnate to entire length of column wings, 3–4.5 × 2.5–3 mm, 3-lobed; lateral lobes ovate, oblique, 1.5–2 × 1–1.5 mm, apex obtuse-rounded; mid-lobe transversely oblong or nearly reniform, 1.5–2 × 2.5–3 mm, margin slightly undulate, apex emarginate and mucronate in sinus; disk with 3 lamellae or ridges; lamellae extending from base of lip to apex of mid-lobe, expanding to semilunate swellings on mid-lobe; spur straight, 1–3 mm, apex acuminate; petiole-like base 3–10 cm, slender, usually forming a stout pseudostem to ca. 25 cm long and 1–2 cm in diameter. Scape arising from leaf axil, 22–80 cm, densely puberulent; rachis to 30 cm, laxly 7–20-flowered; floral bracts persistent, narrowly lanceolate, 7–10 cm, glabrous. Flowers with unpleasant smell, slightly nodding, yellowish brown, large; pedicel and ovary 15–20 mm, puberulent. Sepals similar, oblong-lanceolate, 25–35 × 6–10 mm, abaxially puberulent, 5–7-veined, apex acute or acuminate; lateral sepals slightly narrower than dorsal sepal. Petals subelliptic, ca. 23 × 6 mm, 3-veined, apex acuminate; lip adnate to entire length of column wings, lemon-yellow, 18–24 × 14–15 mm, base shortly clawed, 3-lobed; lateral lobes falcate-oblong, ca. 8 × 4 mm, apex obliquely truncate; mid-lobe narrowly obvate-oblong, ca. 10 × 5 mm, apex acute or rounded and mucronate; disk with 3 undulate lamellae, central one almost reaching apex of mid-lobe; spur yellowish, 2–3 mm, slender, outside puberulent, white plicate around mouth. Column ca. 5 cm, dilated toward apex, sparsely puberulent; rostellum 2-lobed; lobes ca. 1.7 mm; another cap beaked; pollinia narrowly ovoid, ca. 2 mm; viscidium suborbicular. Fl. Apr.–May. 2n = 40*.

- Evergreen broad-leaved forests, shaded places along valleys; 1000–3600 m. N Guangxi, SW Sichuan, NW and SE Yunnan.


福贡虾脊兰 fu gong xia ji lan

Plants 50–60 cm tall. Rhizome inconspicuous. Pseudobulbs conic, short, ca. 2 cm in diameter, with 3 or 4 sheaths. Leaves 3 or 4, not well developed at anthesis, not deciduous; blade elliptic or obovate-lanceolate, 18–30 × 5–11.5 cm, apex acute; petiole-like base sheathing, 3–10 cm, usually forming a stout pseudostem to 25 cm long and 1–2 cm thick. Scape arising from leaf axil, 25–40 cm, densely puberulent; rachis to 30 cm, laxly 5–13-flowered; floral bracts persistent, lanceolate, 5–13 cm, nearly glabrous. Flowers yellowish green, with pinkish red striations; pedicel and ovary 16–23 mm, puberulent. Sepals similar, oblong, 12–23 × (3–)4–6(–8) mm, abaxially puberulent, 5-veined, apex acute. Petals oblong-lanceolate, 11–20 × 4–5.5 mm, glabrous, 3-veined, apex acute; lip adnate to base of column wings, 11–20 × 6–10 mm, base shortly clawed, 3-lobed; lateral lobes falcate-oblong, ca. 15 × 12.5 mm, apex obliquely truncate; mid-lobe nearly reniform or orbicular, ca. 6 × 8 mm, base clawed, apex usually emarginate and mucronate in sinus; dish pinkish red, with 3 tall yellow lamellae; spur very short, ca. 2 mm, outside puberulent, attenuate toward apex. Column ca. 4 mm, slightly dilated toward apex, ventrally villous; rostellum 2-lobed; lobes ca. 1 mm; another cap beaked; pollinia narrowly ovoid, subequal in size, ca. 1.5 mm. Fl. May–Jun. 2n = 38, 40, 48.

Dense forests; 1600–3100 m. N Guangxi, Huê, Sichuan, SE Xizang, SE and W Yunnan [Bhutan, N India, Myanmar, Nepal].


叉唇虾脊兰 cha Chun xia ji Lan

Plants 32–85 cm tall. Rhizome inconspicuous. Pseudobulbs conic, ca. 15 mm in diameter, with 3 or 4 sheaths. Leaves 3, not well developed at anthesis, not deciduous; blade elliptic or elliptic-lanceolate, 20–40 × 5–12 cm, abaxially puberulent, margin undulate, apex acute; petiole-like base 5–20 cm, usually forming a stout pseudostem to ca. 25 cm long and 1–2 cm thick. Scape arising from leaf axil, 22–80 cm, densely puberulent; rachis to 30 cm, laxly 7–20-flowered; floral bracts persistent, narrowly lanceolate, 7–10 cm, glabrous. Flowers with unpleasant smell, slightly nodding, yellowish brown, large; pedicel and ovary 15–20 mm, puberulent. Sepals similar, oblong-lanceolate, 25–35 × 6–10 mm, abaxially puberulent, 5–7-veined, apex acute or acuminate; lateral sepals slightly narrower than dorsal sepal. Petals subelliptic, ca. 23 × 6 mm, 3-veined, apex acuminate; lip adnate to entire length of column wings, lemon-yellow, 18–24 × 14–15 mm, base shortly clawed, 3-lobed; lateral lobes falcate-oblong, ca. 8 × 4 mm, apex obliquely truncate; mid-lobe narrowly obvate-oblong, ca. 10 × 5 mm, apex acute or rounded and mucronate; disk with 3 undulate lamellae, central one almost reaching apex of mid-lobe; spur yellowish, 2–3 mm, slender, outside puberulent, white plicate around mouth. Column ca. 5 cm, dilated toward apex, sparsely puberulent; rostellum 2-lobed; lobes ca. 1.7 mm; another cap beaked; pollinia narrowly ovoid, ca. 2 mm; viscidium suborbicular. Fl. Apr.–May. 2n = 40*.

- Montane evergreen forests; 2400–3000 m. W Yunnan.


通麦虾脊兰 tong mai xia ji lan

Calanthe anjanii Lucksum; C. tangmaiensis K. Y. Lang & Y. Tateishi.
Plants 30–60 cm tall. Pseudobulbs subconic, small, ca. 2 cm in diam., with 2–4 sheaths. Leaves 3 or 4, well developed and spreading at anthesis, not deciduous; blade oblong or oblong-lanceolate, 29–34 × 5–7 cm, apex acute; base contracted and cuneate, forming a pseudostem to 16 cm. Scape arising from leaf axil, erect, to 75 cm, densely puberulent; rachis ca. 19 cm, laxly many flowered; floral bracts persistent, ovate-lanceolate, 4–5 mm, abaxially sparsely puberulent, apex acuminate. Flowers greenish brown to yellowish green with brownish lip; pedicel and ovary ca. 25 mm, densely puberulent. Sepals similar, oblong, ca. 20 × 10 mm, abaxially puberulent, 5- or 6-veined, apex acute; lateral sepals slightly narrower than dorsal sepal. Petals subob lanceolate, ca. 17 × 6 mm, glabrous, 3-veined, apex acute; lip adnate to base of column wings, shorter than sepals, 3-lobed; lateral lobes oblong, ca. 8 × 4 mm, apex obliquely truncate; mid-lobe brown, subcordate or flabellate, slightly smaller than sepals, 3-lobed; lateral lobes oblong, ca. 8 × 4 mm, apex acuminate. Scape arising from leaf axil, erect, 24–34 cm, puberulent; rachis 6–12 cm, laxly 3–7-flowered; floral bracts persistent, ovate-lanceolate, 13–15 mm, abaxially slightly puberulent, apex obtuse. Column brown, ca. 8 mm, nearly glabrous; rostellum 2-lobed; pollinia obvoid, ca. 1.5 mm. Fl. May.

Evergreen broad-leaved forests; ca. 2000 m. SE Xizang [Bhutan, NE India, Myanmar].


峨眉虾脊兰 e mei xia ji lan

Plants ca. 25 cm tall. Pseudobulbs very small, ca. 7 mm in diam., with 2 sheaths. Leaves 3 or 4, basal, well developed at anthesis, not deciduous; blade elliptic or oblong, 8–11 × 2.5–3.5 cm, apex shortly acuminate; petiole-like base ca. 1 cm, usually forming a pseudostem ca. 3 cm. Scape arising from leaf axil, ca. 24 cm, puberulent, usually with 2 tubular sheaths; rachis ca. 4 cm, laxly few flowered; floral bracts persistent, ovate-lanceolate, ca. 10 mm, apex acuminate. Flowers yellowish, with purplish red striations; pedicel and ovary ca. 20 mm. Sepals similar, ovate-lanceolate, ca. 17 × 5 mm, 5-veined, apex acuminate; lateral sepal oblong, slightly oblique, ca. 13 × 2 mm, 2- or 3-veined, apex acuminate; lip adnate to entire length of column wings, white, ca. 10 × 9 mm, 3-lobed near base; lateral lobes elliptic, slightly oblique, margin slightly dentate, apex obtuse; mid-lobe nearly reniform or transversely oblong, margin undulate, apex truncate or emarginate; disk with 7 crested lamellae, central 3 extending to apex of mid-lobe; spur straight, 2–3 mm, outside puberulent, apex obtuse. Column ca. 3 mm; anther cap ± beaked; pollinia obvoid, with very short caudicles; rostellum 2-lobed. Fl. Jul.

- Broad-leaved forests; ca. 2000 m. SC Sichuan (Emei Shan).


弧距虾脊兰 hu ju xia ji lan

Calanthe arcuata var. brevifolia Z. H. Tsi; C. caudatilabellata Hayata; C. caudatilabellata var. latiloba F. Maekawa ex Yamamoto.

Plants 18–45 cm tall. Rhizome inconspicuous. Pseudobulbs conic, small, ca. 1 cm in diam., with 2 or 3 sheaths. Leaves 3 or 4, basal, well developed at anthesis, not deciduous; blade narrowly elliptic-lanceolate or narrowly lanceolate, 15–28 × 0.7–3 cm, apex acute or acuminate; petiole-like base sheathing, often forming a pseudostem 2–3 cm. Scapes 1 or 2, arising from leaf axil, erect, 30–50 cm, densely puberulent or glabrous; rachis 10–25 cm, laxly ca. 10-flowered; floral bracts persistent, herbaceous, narrowly lanceolate, 10–18 mm, glabrous. Flowers white to yellowish green, flushed reddish brown on outer surfaces; pedicel and ovary arcuate, 14–20 mm, densely puberulent. Sepals similar, narrowly lanceolate, 17–22 × 4 mm, glabrous, 5-veined, apex acuminate. Petals linear, 17–22 × 2–3 mm, 3-veined, apex acuminate; lip adnate to entire length of column wings, white, tinged purple at apex, usually turning yellow later, 11–18 × 4–6 mm, 3-lobed or rarely almost unlobed; lateral lobes ovate-triangular or suboblong, oblique, ca. 7 mm across their apices, apical margin sometimes toothed, apex acute; mid-lobe elliptic-rhombic, 8–10 × 6–7 mm, base usually clawed, margin undulate and irregularly toothed, apex aristate; disk with 3–5 ridges; spur cylindrical, slender, ca. 5 mm, glabrous or sparsely puberulent, apex obtuse. Column 4–5 mm, thick, dilated toward apex, glabrous or sometimes sparsely puberulent; column wings triangular, dilated at apex and embracing stigma; rostellum furcately 2-lobed; lobes ca. 1.2 mm; anther relatively small; pollinia narrowly ovoid, equal in size, ca. 1.2 mm; viscidium suboblong, small. Capsule subellipsoid, ca. 20 × 8 mm. Fl. May–Sep. 2n = 38*, 40*.

- Forests, soil-covered rocks along valleys; 1400–3100 m. S Gansu, Guizhou, Hubei, Hunan, S Shaanxi, Sichuan, Taiwan, NW and W Yunnan.


戟形虾脊兰 ji xing xia ji lan

Calanthe trulliformis King & Pantling var. hastata Finet.

Plants 25–38 cm tall. Rhizome inconspicuous. Pseudobulbs very small, with 3 or 4 sheaths. Leaves 4, well developed and spreading at anthesis, not deciduous, subsessile; blade narrowly lanceolate or narrowly elliptic, 12–16 × 1.5–2 cm, apex acuminate. Scape arising from leaf axil, erect, 24–34 cm, puberulent; rachis 6–12 cm, laxly 3–7-flowered; floral bracts persistent, ovate-lanceolate, 13–15 mm, abaxially slightly puberulent. Flowers nodding, pale yellow and green; pedicel and ovary 15–20 mm, densely puberulent. Dorsal sepal elliptic-lanceolate, ca. 14 × 5 mm, abaxially puberulent, 5-veined, apex acuminate; lateral sepal ovate-lanceolate, oblique, ca. 14 × 4.5 mm, abaxially puberulent, 5-veined, apex acuminate. Petals linear, ca. 12 × 2 mm, glabrous, 3-veined, apex acuminate; lip adnate to entire length of column wings, yellow; orange-brown at base, sub-ovate-triangular, 3-lobed; lateral lobes ovate, ca. 5.5 × 4 mm, ca. 8 mm across their apices, apex obtuse; mid-lobe suboblong, ca. 6 × 4.5 mm, apex acute; disk with 3 lamellae, central one extending almost to apex of mid-lobe; spur cylindrical, 4–5 mm, outside puberulent, apex obtuse. Column ca. 5 mm, thick, dilated toward apex; rostellum 2-lobed; lobes ca. 1.2 mm; pollinia

**裂距虾脊兰** lie ju xia ji lan

Plants ca. 75 cm tall, without distinct rhizome. Pseudobulbs subconic, short, 1–2 cm in diam., with 2 or 3 sheaths. Leaves 3, well developed and spreading at anthesis, not deciduous; blade elliptic, ca. 22 × 10 cm, papery, 5-veined, apex acuminate; petiole-like base 30–37 cm, usually forming a pseudostem to 23 cm. Scape arising from leaf axil, upper part densely puberulent; rachis ca. 30 cm, laxly many flowered; floral bracts persistent, lanceolate, ca. 5 mm, apex acute. Flowers pink; pedicel and ovary ca. 20 mm, puberulent. Sepals similar, ovate-lanceolate, 15–17 × 6–7 mm, 5-veined, apex ± acuminate; lateral sepals ovate-oblong, ca. 14 × 6.5 mm, 5-veined, apex ± acuminate. Petals obovate-oblong, ca. 10 × 3.5 mm, 5-veined, apex obtuse; lip adnate to entire length of column wings, flabellate, ca. 5.5 mm, 3-lobed; lateral lobes broadly oblong, shorter and broader than mid-lobe, ca. 7 mm across their apices, apex subtruncate and ± incurved; mid-lobe suboblolong, ca. 3.5 × 2 mm, apex acute; disk with 3 ridges, central one thicker and extending to apex of mid-lobe; spur cylindric, ca. 6 mm, outside puberulent, apex obtuse and slightly 2-lobed. Column ca. 4 mm, ventrally sparsely puberulent, wings decurrent to lip; rostellum 2-lobed; lobes ca. 1 mm; anther cap beaked; pollinia narrowly ovoid, equal in size, ca. 1.5 mm. Fl. Feb.–Mar.

Evergreen broad-leaved forests; ca. 1700 m. SW Yunnan [Myanmar].

**Calanthe discolor** Lindley, Sert. Orchid. ad t. 9. 1838.

**虾脊兰** xia ji lan

*Alismorkis discolor* (Lindley) Kuntze; *Calanthe cheniana* Handel-Mazzetti; *C. esquirolei* Schlechter.

Plants 40–65 cm tall. Rhizome inconspicuous. Pseudobulbs subconic, small, ca. 1 cm in diam., with 3 or 4 sheaths. Leaves 3, not well developed at anthesis, not deciduous; blade obovate-oblong to elliptic-oblong, 13–25 × 3–9 cm, abaxially densely puberulent, apex acute; petiole-like base 3–9 cm, usually forming a pseudostem 6–10 cm long and ca. 2 cm in diam. Scapes 1 or 2, arising from leaf axil, 18–30 cm, densely puberulent; rachis 6–8 cm, laxly 6–10-flowered; floral bracts persistent, ovate-lanceolate, 4–7 mm, nearly glabrous. Flowers brownish purple with white lip; pedicel and ovary 6–13 mm, densely puberulent. Sepals similar, elliptic, slightly oblique, 11–13 × 6–7 mm, abaxially puberulent below middle, 5-veined, apex acute. Petals suboblong or obovate-lanceolate, 11–12 × 3.5–5 mm, glabrous, 3-veined, apex slightly obtuse; lip adnate to entire length of column wings, flabellate in outline, 10–13 × ca. 18 mm, deeply 3-lobed; lateral lobes falcate-obovate or cuneate-obovate, 9–10 × 6–9 mm, larger than mid-lobe, apex truncate-obtuse and incurved toward mid-lobe; mid-lobe obovate-cuneate, 7–8 × ca. 6 mm, apical margin sometimes irregularly dentate, apex emarginate; disk with 3 membranous, triangular lamellae extending to middle of mid-lobe; spur cylindric, 5–10 mm, outside sparsely puberulent, attenuate toward apex. Column ca. 4 mm, dilated at apex, wings decurrent to base of lip; rostellum 2-lobed; lobes ca. 0.6 mm; pollinia clavate, ca. 1.8 mm. Fl. Apr.–May. 2n = 40.

Evergreen broad-leaved forests; 800–1500 m. Anhui, N Fujian, Guangdong, S Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, Zhejiang [Japan, Korea].


**长柄虾脊兰** chang bing xia ji lan

Plants to 100 cm tall, with many long roots at base; sheaths at base becoming fibrous. Pseudobulbs obscure, conic, ca. 1 × 1 cm. Leaves 2–4, fully developed at anthesis; blade oblanceolate to lanceolate, 15–35 × 4–6.5 cm, apex acute to acuminate; petiole-like base 10–25 cm, 5-veined. Scape arising from within clasping base of leaves, generally longer than leaves; peduncle 20–30 cm; rachis to 11 cm, ca. 10-flowered; floral bracts persistent, narrowly lanceolate, 5–7 × ca. 1.5 mm, apex acuminate. Flowers showy, pale violet to white with a lilac lip, ca. 3 cm wide across lateral sepals when flattened. Dorsal sepal ovate-oblong, ca. 12 × 5 mm, 5-veined, apex ± acute; lateral sepals ovate-oblong, ca. 14 × 6.5 mm, 5-veined, apex ± acuminate. Petals ovate-oblong, ca. 10 × 3.5 mm, 5-veined, apex ± acute; lip adnate to column, 3-lobed; lateral lobes reniform, ca. 3 × 8.5 mm, margin a little uneven, apex rounded; mid-lobe much smaller, ca. 3.5 × 3.5 mm, margin very uneven, apex apiculate; disk with 3 keels running along lip and terminating on mid-lobe, middle keel longer; spur terete, curved, slightly more than 2 cm, pubescent. Column short and thick, ca. 7 mm.

Terrestrial in montane forests in limestone areas; 1600–1700 m. SE Yunnan (Malipo) [Vietnam].

This species was first recorded from China by X. H. Jin and S. C. Chen (Acta Bot. Yunnan. 29: 169–170. 2007).


**车前虾脊兰** che qian xia ji lan

Plants 40–65 cm tall. Rhizome inconspicuous. Pseudobulbs broadly conic, 1.5–2 cm in diam., with 4 sheaths. Leaves 2–4, basal, not well developed at anthesis, not deciduous; blade elliptic, 25–28 × 8–12 cm, apex acute; petiole-like base ca. 20 cm, usually forming a pseudostem ca. 16 cm. Scape arising from leaf axil, 30–40 cm, puberulent; rachis 13–22 cm, laxly to subdensely 12- to more than 20-flowered; floral bracts persistent, lanceolate, 5–10 mm, glabrous. Flowers scented, pendulous, pinkish, white, or yellow; pedicel and ovary 14–24 cm, puberulent. Sepals similar, ovate-lanceolate, 15–17 × 6–7 mm, abaxially sparsely puberulent, 5-veined, apex acuminate; lateral sepals slightly smaller than dorsal sepal. Petals oblong or elliptic, 14–15 × 4–7 mm, glabrous, 3-veined, apex acute; lip adnate to entire length of column wings, subflabellate, 10–12 × 8–13 mm.
Calanthe plantaginea

1a. Flowers pinkish or white; petals oblong, narrower than lateral sepals; spur 17–20 mm

1b. Flowers yellow; petals elliptic, lateral sepals; spur short, ca. 5 mm

2a. Calanthe plantaginea var. plantaginea

2b. Calanthe plantaginea var. lusuiensis

42a. Calanthe graciliflora

1a. Mid-lobe of lip subsquare or obovate; spur 10–13 mm, curved .......... 43a. var. graciliflora

1b. Mid-lobe of lip transversely oblong; spur ca. 18 mm, straight .......... 43b. var. xuefengensis

43a. Calanthe graciliflora var. graciliflora

13 mm, much shorter than pedicel and ovary. Fl. Mar–May.


base clawed, apex dilated, emarginate and mucronate in sinus; disk with 2 tall conspicuous ridges, central one thickened, lamellate and usually extending almost to apex of mid-lobe; spur straight or slightly arcuate, cylindric, 11–15 mm, slender, outside sparsely puberulent. Column wings decurrent to lip and connecting to ridges on disk; rostellum 2-lobed; lobes ca. 1 mm; pollinia nearly ovoid, nearly equal in size, ca. 1 mm. Fl. May.

- Evergreen broad-leaved forests; 1600–2100 m. W Hubei, Sichuan.


 différence de sa taille, le nombre de ses feuilles, les caractères de ses fleurs, la forme de ses tiges, etc. Elle est donc facile à différencier de sa proche relative, C. amamiana Hayata.

Plants 28–55 cm tall. Rhizome elongate, thick. Pseudobulbs subglobose, ca. 1 cm in diam., with 3 sheaths. Leaves 2–4, basal, not well developed at anthesis, not deciduous; blade obovate-elliptic or elliptic, 15–30 × 4–8 cm, papery, abaxially densely puberulent, apex acute; petiole-like base (6–)12–20 cm, usually forming a pseudostem 13–20 cm. Scapes 1 or 2, arising from leaf axils, 25–60 cm, densely puberulent; rachis 6–25 cm, laxly to subdensely 8–20-flowered; floral bracts persistent, narrowly lanceolate, ca. 5 mm, glabrous, apex acute. Flowers white or pink, occasionally flushed purple; pedicel and ovary 15–20 mm, puberulent. Dorsal sepal oblong-lanceolate, 12–17 × 5–8 mm, abaxially puberulent, 5-veined, apex acuminate; lateral sepals oblong, oblique, 12–17 × 4–7 mm, abaxially puberulent, 5-veined, apex acute. Petals narrowly obovate or elliptic, 11–15 × 2.5–4.5 mm, glabrous, 3-veined; abaxial face puberulent, 5-veined, apex subacute; lip adnate to entire length of column wings, broadly ovate or orbicular in outline, 13–20 × 18–25 mm, 3-lobed; lateral lobes subfalcate-ovate, 7–11 × 9–12 mm, apex rounded-obtuse; mid-lobe orbicular, ca. 9 × 11 mm, margin erose, apex aristate; disk with 3 shallow and inconspicuous ridges extending midway along mid-lobe; spur curved, cylindric, 10–15 mm, inside densely puberulent. Column 7–9 mm, ventrally puberulent; rostellum 2-lobed; anther cap beaked; pollinia clavate, with caudicles; viscidium subelliptic. Capsule 30–50 × ca. 15 mm, with 6 winglike ridges. Fl. Dec.–Mar. 2n = 40*.

- Forests; 1000–2000 m. Taiwan.


Plants 30–50 cm tall. Rhizome inconspicuous. Pseudobulbs conical, small, ca. 1.5 cm in diam., enclosed in leaf sheaths. Leaves 3, well developed and spreading at anthesis, not deciduous; blade narrowly elliptic, 25–30 × 3.5–9.5 cm, with 5 main veins, apex acute; petiole-like base sheathing, usually forming a pseudostem to ca. 9 cm long and ca. 1 cm in diam. Scapes 1 or 2, arising from leaf axils, erect, 30–50 cm, densely puberulent; rachis to 12 cm, laxly 2–10-flowered; floral bracts persistent, narrowly lanceolate, 7–20 mm, glabrous. Flowers pink; pedicel and ovary 15–30 mm, puberulent. Dorsal sepal elliptic, ca. 15 × 7 mm, sparsely puberulent, 5-veined, apex acuminate; lateral sepals obovate, oblique, ca. 15 × 6–8 mm, sparsely puberulent, 5-veined, apex apiculate. Petals linear, ca. 14 × 2 mm, glabrous, 3-veined, apex acute; lip adnate to entire length of column wings, 8–10 mm, ± arcuate, smaller ones straight. Fl. Apr.–Aug. 2n = 40*.

- Forests; 2200–2300 m. SE Xizang, W Yunnan.


Plants 30–50 cm tall. Rhizome thick. Pseudobulbs subovoid, 1–1.5 cm, with 3 or 4 sheaths. Leaves 2 or 3, well developed and spreading at anthesis, not deciduous; blade elliptic-oblanceolate, 30–50 × 4–7 cm, papery, base cuneate, apex acute; petiole-like base 5–10 cm, usually forming a pseudostem more than 10 cm. Scape arising from leaf axil, 40–50 cm, puberulent; rachis 5–10 cm, laxly 5–10-flowered; floral bracts persistent, lanceolate, 10–18 mm, glabrous, apex acuminate. Flowers white, sometimes tinged pinkish purple; pedicel and ovary 20–40 mm, glabrous; ovary with 6 longitudinal winglike ridges. Dorsal sepal ovate-lanceolate, 20–25 × 9–11 mm, base slightly contracted, apex acuminate; lateral sepals ovate-lanceolate, oblique, 25–27 × ca. 10 mm, base contracted, apex acute. Petals narrowly lanceolate, 18–20 × ca. 4 mm, apex acute; lip adnate to entire length of column wings, broadly ovate or orbicular in outline, 13–20 × 18–25 mm, 3-lobed; lateral lobes subfalcate-ovate, 7–11 × 9–12 mm, apex rounded-obtuse; mid-lobe orbicular, ca. 9 × 11 mm, margin erose, apex aristate; disk with 3 shallow and inconspicuous ridges extending midway along mid-lobe; spur curved, cylindric, 10–15 mm, inside densely puberulent. Column 7–9 mm, ventrally puberulent; rostellum 2-lobed; anther cap beaked; pollinia clavate, with caudicles; viscidium subelliptic. Capsule 30–50 × ca. 15 mm, with 6 winglike ridges. Fl. Dec.–Mar. 2n = 40*.

- Forests; 1000–2000 m. Taiwan.
Plants to ca. 40 cm tall. Rhizome inconspicuous. Pseudobulbs conic, small, ca. 1 cm in diam., often with 3 sheaths. Leaf solitary, not well developed at anthesis, not deciduous; blade broadly elliptic, 20–30 × 8–11 cm, glabrous, margin slightly undulate, apex acute; petiole-like base 14–32 cm, slender, usually involute and forming a pseudostem 9–20 cm. Scape arising from leaf axil, erect, to 35 cm, puberulent; rachis 3–4 cm, laxly 4– or 5-flowered; floral bracts persistent, ovate-lanceolate, 4–5 mm, membranous, glabrous, apex aristate. Flowers pale red; pedicel and ovary ca. 12 mm, densely puberulent. Dorsal sepal ovate-lanceolate, 17–18 × 6–7 mm, abaxially densely puberulent, 5-veined, apex acute; lateral sepals oblong, slightly oblique, 17–18 × 5–6 mm, abaxially densely puberulent, 5-veined, apex ± hooked and aristate. Petals oblong-lanceolate, 15–16 × 4.5–5 mm, abaxially puberulent, 3-veined; lip adnate to entire length of column wings, obovate-orbicular, base clawed, 3-lobed; lateral lobes tooth-shaped, very small, 1–3 × 0.8–1.2 mm, apex obtuse; mid-lobe broadly ovate-cuneate, ca. 10 × 10 mm, base clawed, margin slightly erose, apex emarginate and mucronate in sinus; disk with 3 lamellae; spur straight, cylindric, ca. 9 × 1.5 mm, outside and inside puberulent, apex obtuse. Column ca. 6 mm, dilated toward apex, glabrous, with triangular wings; rostellum 2-lobed; lobes ca. 1 mm; anther cap ca. 4 mm, beaked; pollinia clavate, subequal in size, ca. 2 mm; viscidium suboblong, ca. 0.8 mm. Fl. Mar–Apr.

● N Guangdong.


**南昆虾脊兰** nan kun xia ji lan

Plants ca. 50 cm tall. Pseudobulbs subglobose, small, ca. 1 cm in diam., with 3 sheaths. Leaves 2, not well developed at anthesis, not deciduous; blade elliptic, 21–25 × ca. 10 cm, abaxially densely puberulent, apex acute or obtuse; petiole-like base ca. 20 cm, usually forming a pseudostem ca. 10 cm. Scape arising from leaf axil, to 55 cm, densely puberulent; rachis ca. 10 cm, laxly 6- or 7-flowered; floral bracts persistent, narrowly lanceolate, 4–5 mm, sparsely puberulent. Flowers white; pedicel and ovary ca. 16 mm, puberulent. Dorsal sepal oblong, 15–18 × ca. 6 mm, abaxially puberulent, 5-veined, apex aristate; lateral sepals oblong, slightly oblique, 15–18 × ca. 6 mm, abaxially puberulent, 5-veined, apex acuminate and aristate. Petals narrowly oblong, 14–16 × 3.2–4 mm, glabrous, 3-veined, apex acuminate and aristate; lip adnate to entire length of column wings, ca. 11 × 9 mm, 3-lobed; lateral lobes subfalcate-oblong, ca. 3.5 × 2 mm, 6–7 mm across their apices, apex obliquely truncate; mid-lobe obovate, ca. 7 × 8 mm, base clawed, margin slightly erose, apex emarginate and apiculate in sinus; disk with 3 ridges and with a fleshy triangular appendage near mouth of spur; central ridge extending to apex of mid-lobe; spur strongly curved near apex, 8–9 mm, outside sparsely puberulent. Column ca. 5 mm, dilated at apex, puberulent, wings decurrent to lip; rostellum 2-lobed; lobes ca. 1 mm; another cap beaked; pollinia narrowly ovoid, ca. 1.5 mm; viscidium narrowly oblong, ca. 1 mm. Fl. Apr.

● Shaded places along valleys. S Guangdong.


**大黄花虾脊兰** da huang hua xia ji lan

*Calanthe discolor* Lindley f. *sieboldii* (Decaisne ex Regel) Ohwi; *C. discolor var. sieboldii* (Decaisne ex Regel) Maximowicz; *C. kawakamii* Hayata; *C. striata* (Swartz) R. Brown f. *sieboldii* (Decaisne ex Regel) Ohwi; *C. striata var. sieboldii* (Decaisne ex Regel) Maximowicz; *C. takeoi* Hayata.

Plants 30–55 cm tall. Rhizome elongate, thick. Pseudobulbs small, with 5–7 sheaths. Leaves 2 or 3, well developed at anthesis, not deciduous; blade broadly elliptic, 20–60 × 7.5–15 cm, apex acute or mucronate; petiole-like base 6–18 cm, usually forming a pseudostem 4–14 cm long and ca. 1.5 cm in diam. Scape 40–50 cm, sparsely puberulent; rachis 6–15 cm, laxly to subdensely 6–13-flowered; floral bracts persistent, lanceolate, ca. 10 mm, glabrous, apex acuminate. Flowers bright yellow, large, slightly fleshy; pedicel and ovary 10–15 mm, sparsely puberulent. Dorsal sepall elliptic, 22–30 × 10–15 mm, apex acute; lateral sepals ovate-oblong, oblique, 18–28 × 8–14 mm, apex acute. Petals narrowly elliptic, 19–24 × 7–9.5 mm, base narrowed, apex acute; lip adnate to entire length of column wings, ca. 12 mm, densely puberulent.
wings, spreading horizontally, yellow, mottled red at base, deeply 3-lobed; lateral lobes ovate or falcate-obovate, oblique, 10–15 × 5–8 mm, apex obtuse-rounded; mid-lobe nearly elliptic, 9–13 × 5–9 mm, apex mucronate; disk with 5 ridges and 2 rows of white short hairs at base; lateral 2 ridges fleshy, central 3 extending almost to apex of mid-lobe; spur ca. 8 mm, inside puberulent. Column ca. 5 mm, thick; rostellum 2-lobed; pollinia with short caudicles, attached to an elliptic viscidium. Fl. Feb–Mar. 2n = 40.

Forests; 1200–1500 m. Hunan, SW Taiwan [Japan (Ryukyu Islands), Korea].


葫芦茎虾脊兰 hu lu jing xia ji lan


Plants ca. 30 cm tall, without a distinct rhizome. Pseudo-bulbs ± clustered, stemlike, ovoid or ovoid-conic, often contracted at middle, 3–8 × ca. 4 cm, with 2 or 3 sheaths. Leaves 2 or 3, fully spreading at anthesis, deciduous in dry season; blade elliptic, ca. 30 × 9 cm, base contracted and articulate, apex acuminate. Scape arising from base of pseudobulb, erect, to 28 cm, densely villous, with 2 brownish tubular sheaths below middle; rachis 8–10 cm, laxly 3–10-flowered; floral bracts persistent, ovate, ca. 20 mm, abaxially villous, apex acuminate. Flowers white, flushed pink, opening fully; pedicel and ovary ca. 35 mm, densely villous. Dorsal sepal ± reflexed, ovate, ca. 12 × 5 mm, abaxially densely villous, 3-veined, apex acute; lateral sepals ± reflexed, ovate, oblique, ca. 14 × 14 mm, abaxially densely villous, apex acute. Petals ± reflexed, ovate-oblong, ca. 15 × 5.5 mm, apex acute; lip adnate to column foot, broadly ovate, ca. 14 × 20 mm, ± 3-lobed; lateral lobes embracing column, white, with many purplish red spots and pale pink stripes, margin ± crisped; mid-lobe suborbicular, margin crisped; disk white, with 3 ridges at base; central ridge extending to apex of mid-lobe; spur yellowish, slender, ca. 25 × 1.5 mm, outside densely villous. Column purplish red, ca. 5 mm, thick, with a whitish column foot ca. 3 mm; rostellum 2-lobed; pollinia obovoid, equal in size, ca. 1 mm, with short caudicles; viscidium narrowly triangular. Fl. Nov–Dec.

Evergreen broad-leaved forests; 800–1200 m. S Yunnan [Myanmar, Thailand].