
鸢尾属 yuan wei shu

Pardanthopsis (Hance) Lenz.

Herbs perennial, usually with short or long rhizomes (or bulbs), sometimes with swollen storage roots. Leaves mostly basal, 2-ranked, often oriented edgewise to aerial stem, sword-shaped to linear. Aerial stem developed, much shorter than or longer than leaves. Inflorescence of rhipidia arranged in racemes, panicles, or solitary. Flowers white, yellow, blue, violet, or purple, relatively large, often fragrant. Perianth tube usually trumpet-shaped, sometimes very narrowly so, very short to long; outer 3 perianth segments (falls) ornamented or not, with a crested, bearded, or beardless claw (haft), and an expanded, usually reflexed limb (blade), the beard or crest (when present) extending along midvein of proximal part of limb adaxially; inner 3 perianth segments (standards) smaller, never ornamented, erect or spreading. Stamens opposed to style branches and appressed to them; filaments free, flattened. Style with 3 colored, expanded, petaloid branches, arching over stamens, apex of branches extended as 2 lobes (crests) projecting beyond flaplike, abaxial stigma. Capsule globose, ellipsoid, or cylindric, apex beaked or not. Seeds pyriform, flattened and D-shaped, or irregularly angled, sometimes arillate.

About 225 species: temperate regions of the N hemisphere; 58 species (21 endemic) in China.

The following species were recorded in FRPS as being cultivated for ornament in China. Large species with bearded outer perianth segments: 
Iris germanica Linnaeus (with spathes at least partly green) and I. pallida Lamarch (with papery spathes). Large species with beardless outer perianth segments: I. sibirica Linnaeus (similar to I. sanguinea, but with scarious spathes and longer, unequal pedicels); I. pseudacorus Linnaeus (similar to I. maackii, but with leaves with an obvious midvein and larger flowers); and I. versicolor Linnaeus (similar to I. kaevigata, but with a more branched flowering stem and smaller flowers). White forms can occur in most species and have been treated variously.

1a. Roots swollen, fusiform, tuberous; plants densely tufted with small growing point.
2a. Flowers dark violet, crest of outer perianth segments deeply fimbriate; plants stemless ........................................... 33. I. barbatula
2b. Flowers pale violet, crest of outer perianth segments not deeply fimbriate; plants with or without stem.
3a. Flowering stems always simple, very short (to 8 cm), or not emerging from ground; perianth tube 3–5 cm .......... 32. I. collettii
1b. Roots not tuberous; plants with rhizomes (sometimes very short).
4a. Flowering stems dichotomously branched; pedicels of fallen flowers persistent, exserted from spathes, stiff; outer perianth segments not crested.
5a. Flowering stems bearing well-developed, falcate leaves; perianth tube extremely short ................................. 35. I. dichotoma
5b. Flowering stems bearing reduced leaves, leaves of basal fans erect or slightly incurved; perianth tube ca. 2 cm ........................................................................................................ 36. I. subdichotoma
4b. Flowering stems not or not obviously dichotomously branched; if pedicels of fallen flowers persistent and exserted, then outer perianth segments crested.
6a. Outer perianth segments with a toothed crest or beard of clavate hairs.
7a. Outer perianth segments with a crest.
8a. Plants with leafy stems; leaves alternate on stem or clustered into a terminal fan.
9a. Leaves alternate on stem, not clustered into a terminal fan; flowers pale reddish purple .................................... 42. I. milesii
9b. Leaves clustered into a terminal fan; flowers pale violet, pale blue, or white.
10a. Flowers pale blue or white, 4–5.5 cm in diam. .......................................................... 39. I. confusa
10b. Flowers violet, 7.5–8 cm in diam. .................................................................................. 40. I. wattii
8b. Plants with leaves in basal fans or tufts.
11a. Flowering stems with at least 4 lateral branches.
12a. Flowering stems with 5–12 branches; flowers 4.5–5.5 cm in diam. .................................................. 37. I. japonica
12b. Flowering stems with 4 or 5 branches; flowers 7–8 cm in diam. .................................................. 38. I. formosana
11b. Flowering stems simple or with 1 or 2 lateral branches.
13a. Rhizomes not obvious; roots thick; style branches ca. 1.5 cm wide, terminal lobes incurved toward center of flower ................................................................................................................................. 34. I. latistyla
13b. Rhizomes obvious; roots slender; style branches narrower, terminal lobes not incurved toward center of flower.
14a. Rhizomes ca. 1 cm in diam.; leaves 1.5–3.5 cm wide; flowers ca. 10 cm in diam.; crest of outer perianth segments white, irregularly toothed ................................................................. 41. I. tectorum
14b. Rhizomes less than 1 cm in diam.; leaves less than 1.5 cm wide; flowers less than 6 cm in diam.; crest of outer perianth segments yellow, low.
15a. Leaves 6–12 mm wide; rhizomes not filiform; capsule held at right angle to pedicel ................. 43. I. speculatrix
15b. Leaves 1–7 mm wide; rhizomes filiform; capsule erect ............................................................................... 44. I. proantha

7b. Outer perianth segments with a beard of clavate hairs.
16a. Plants surrounded by dense, fibrous remains of old leaf bases.
17a. Fibers strongly twisted and coiled ................................................................. 52. I. potaninii
17b. Fibers ± straight.
18a. Rhizomes swollen, tuberlike; spathes 2-flowered; flowering stems to 35 cm; flowers ca. 6 cm
     in diam. ........................................................................................................... 51. I. leptophylla
18b. Rhizomes neither swollen nor tuberlike; spathes 1-flowered; plants stemless or with flowering
     stems to 20 cm; flowers to 5 cm in diam.
19a. Flowers yellow ........................................................................................... 53. I. psammocola
19b. Flowers violet or purple ................................................................................ 54. I. tigridia
16b. Plants usually without dense, fibrous remains of old leaf bases.
20a. Flowers yellow.
21a. Flowers ± flat, all parts spreading ................................................................. 49. I. narcissiflora
21b. Flowers not flat, inner perianth segments ± erect.
22a. Leaves with swollen basal sheaths ............................................................... 48. I. curvifolia
22b. Leaves without swollen basal sheaths.
23a. Rhizomes creeping ..................................................................................... 45. I. flavissima
23b. Rhizomes compact.
24a. Spathes red flushed ..................................................................................... 46. I. bloudowii
24b. Spathes green ............................................................................................. 47. I. mandshurica
20b. Flowers violet-purple.
25a. Leaves glaucous, falcate, more than 1 cm wide ............................................ 50. I. scariosa
25b. Leaves not as above, often poorly developed at anthesis.
26a. Flowering stems developed.
27a. Flowers small, to 3 cm in diam., inner perianth segments spreading .......... 55. I. goniocarpa
27b. Flowers large, 6–7 cm in diam., inner perianth segments erect .................... 56. I. cuniculiformis
26b. Flowering stems not developed.
28a. Flowers pale to mauve-purple, blotched darker, perianth tube 5.5–6 cm, inner segments
     erect .................................................................................................................. 57. I. kemaonensis
28b. Flowers dark violet, obscurely mottled, perianth tube 4–14 cm, inner segments
     spreading ......................................................................................................... 58. I. dolichosiphon
6b. Outer perianth segments without a beard or crest.
29a. Flowers subtended by a single bract ............................................................. 13. I. anguifuga
29b. Flowers subtended by 2 or more bracts (spathes).
30a. Rhizomes short; plants densely tufted, tufts surrounded by a tough collar of old leaf sheaths.
31a. Spathes ovate, inflated.
32a. Spathes with transverse veins ...................................................................... 23. I. ventricosa
32b. Spathes without transverse veins ................................................................. 22. I. bungei
31b. Spathes ± lanceolate, not inflated
33a. Flowering stems obvious, emerging above ground.
34a. Flowers flat, outer and inner perianth segments spreading ......................... 24. I. farreri
34b. Flowers funnelform, outer perianth segments ascending ............................. 25. I. songarica
33b. Flowering stems not emerging above ground.
35a. Flowers yellow with dark violet markings, 3–5 cm in diam. ....................... 30. I. kobayashii
35b. Flowers violet or blue.
36a. Outer perianth segments very narrow, to 0.8 cm wide.
37a. Flowers to 5 cm in diam. (Qinghai) .............................................................. 27. I. qinghainica
37b. Flowers more than 6 cm in diam. (Ne China) ............................................... 29. I. cathayensis
36b. Outer perianth segments more than 1 cm wide.
38a. Leaves ca. 2 mm wide; perianth tube to 8 cm ............................................ 26. I. tetuifolia
38b. Leaves ca. 3 mm wide; perianth tube to 14 cm .......................................... 28. I. loczyi
30b. Rhizomes elongate; stems and leaf bases usually without a tough collar of old leaf sheaths.
39a. Flowers yellow or whitish.
40a. Plants small; rhizomes long, slender.
41a. Flowers yellow ........................................................................................... 14. I. minutoarea
41b. Flowers white, with yellow signal patch on limb of outer perianth segments ............................................................................................................. 15. I. odaesanensis
40b. Plants robust; rhizomes stout.
42a. Ovary long and slender, apex beaklike.
43a. Outer perianth segments with expanded limb, abruptly contracted into narrow claw ................................. 20. I. halophila
43b. Outer perianth segments oblanceolate, gradually narrowed toward base ........................................... 21. *I. lactea*

42b. Ovary short and thick.

44a. Flowering stems with several branches; leaves usually more than 1 cm wide (NE China) ............... 8. *I. maackii*

44b. Flowering stems simple; leaves less than 1 cm wide (SW China).

45a. Inner perianth segments erect; leaves glossy on 1 surface, dull on other; flanges of claw of outer perianth segments inconspicuous ................................................................. 2. *I. forrestii*

45b. Inner perianth segments spreading obliquely; leaves dull on both surfaces; flanges of claw of outer perianth segments conspicuous, purple mottled ......................................................... 1. *I. wilsonii*

39b. Flowers purplish, bluish, or violet.

46a. Plants stemless or with slender flowering stems to 25 cm; flowers to 5.5 cm in diam.

46b. Plants with stout flowering stems usually more than 25 cm; flowers usually more than 5.5 cm in diam.

50a. Inner perianth segments much reduced ................................................................. 12. *I. setosa*

50b. Inner perianth segments conspicuous.

51a. Leaves with obvious midvein.

51b. Leaves without obvious midvein.

53a. Ovary long and slender, apex beadlike; perianth tube less than 1 cm.

54a. Outer perianth segments with expanded limb, abruptly contracted into narrow claw ........... 20. *I. halophila*

54b. Outer perianth segments oblanceolate, gradually narrowed toward base ................................ 21. *I. lactea*

53b. Ovary short and wide; perianth tube more than 1 cm.

55a. Flowering stems solid .................................................................................... 6. *I. clarkei*

55b. Flowering stems hollow.

56a. Claw of outer perianth segments with reticulate pattern (NE China) ........................................ 7. *I. sanguinea*

56b. Claw of outer perianth segments without reticulate pattern (mainly SW China).

57a. Flowers more than 9 cm in diam.; spathes short and broad, very unequal, apex acute or obtuse; stigma flap 2-lobed (NE China and cultivated) .................................................... 9. *I. laevigata*

57b. Flowers to 9 cm in diam.; spathes long and narrow, subequal, apex very acute; stigma flap triangular (SW China).

58a. Plants usually more than 70 cm; flowering stems usually branched .............................................................................. 5. *I. delavayi*

58b. Plants less than 70 cm; flowering stems simple.

59a. Flowers dark violet, limb of outer perianth segments with gold markings at base ................................................................. 3. *I. chrysographes*

59b. Flowers paler, bluish to violet, limb of outer perianth segments with white or yellow-tinged patch at center marked with darker veins ................................................. 4. *I. bulleyana*

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黄花鸢尾 huang hua yuan wei

Rhizomes shortly creeping, thick. Leaves grayish green on both surfaces, linear, 25–55 cm × 5–8 mm, 3–5-veined, base surrounded by persistent fibers. Flowering stems 50–60 cm, hollow, 1- or 2-leaved; spathes 3, green, lanceolate, 6–9(–16) cm × 8–10 mm, 2-flowered, apex long acuminate. Flowers yellow, 6–10 cm in diam.; pedicel 3–11 cm. Perianth tube 0.5–1.2 cm; outer segments with purple-brown stripes and spots, obovate, 6–6.5 × ca. 1.5 cm, claw with conspicuous, dark purple auricles on both sides; inner segments slanting outward, oblanceolate, 4.5–5 cm × ca. 7 mm. Stamens ca. 3.5 cm. Ovary 1.2–1.8 cm. Style branches dark yellow, 4.5–6 cm. Capsule ellipsoid-cylindric, 3–4 × 1.5–2 cm, 6-ribbed, apex not beaked.


- Forest margins, hillsides, meadows, damp riversides; 2900–4300 m. Gansu, Hubei, Shaanxi, Sichuan, Yunnan.

There continues to be a great deal of confusion among the “Sibiricae” irises of SW China, and a thorough revision is needed based on field and laboratory studies. Some of the difficulty arises because species nos. 2–5 were described from cultivated material. It seems to one of us (Noltie), from herbarium specimens, that no distinction can be made between the two yellow-flowered species, *Iris wilsonii* (the earlier described) and *I. forrestii*, and that *I. bulleyana* is merely a purple-flowered form of the same species. *Iris chrysographes* and *I. delavayi* are probably distinct, though very difficult to recognize in the herbarium. The distributions given in the present account should be treated with caution as they are largely based on herbarium material.

3. Iris chrysochographe

Rhizomes shortly creeping, thick. Leaves grayish green on both surfaces, linear, 25–70 cm × 3–12 mm, midvein obscure. Flowering stems 25–50 cm, hollow. Sepals 3, green, lightly tinted reddish purple, lanceolate, 6.5–9 × 0.8–1.5 cm, 2-flowered, apex acuminate. Flowers very dark violet, velvety, 6–9 cm in diam.; outer segments spreading obliquely, narrowly lanceolate, ca. 6 × 1 cm. Stamens 4–4.5 cm; filaments purple; anthers violet. Ovary 3–3.5 × 5–7 mm. Style branches dark purple, 4.5–5 cm × 6–8 mm. Capsule ellipsoid, 4–6 × 1.7–2 cm, 3-angled, apex not beaked. Seeds maroon-brown, semiorbicular. Fl. Jun–Jul, fr. Aug–Oct. 2n = 40*.

Forest margins, hillsides, meadows, streamsides; (1200–)3000–4000 m. Guizhou, Sichuan, Xizang, Yunnan [Myanmar].

4. Iris bulleyana

Rhizomes shortly creeping, thick. Leaves grayish green on both surfaces, linear, 15–45 cm × 3–10 mm, midvein absent, base reddish. Flowering stems 10–40(–70) cm × 4–6 mm, hollow, 2- or 3-leaved; spathes 2 or 3, green, slightly reddish brown at margin, 5.5–12 × 0.8–1.2 cm, (1 or)2-flowered. Flowers pale lilac or bluish violet to dark violet, rarely white, 6.5–7.5 cm in diam.; pedicel 2–6 cm. Perianth tube 1–1.2 cm; outer segments obovate, with darker lines and markings on central, whitish or yellowish patch, 4.5–5 × ca. 2.5 cm; inner segments ± erect, light violet, lanceolate, ca. 4 × 1.5 cm. Stamens ca. 2.5 cm; anthers milky white. Ovary ca. 2 cm. Style branches ca. 3.5 cm. Capsule cylindric, 4.5–5.5 × 1.5–1.8 cm, 3-angled, distinctly 6-veined, apex not beaked, obtuse. Seeds brown, semiorbicular, flat. Fl. Jun–Jul, fr. Aug–Oct. 2n = 40.

Damp hillsides, meadows, streamsides; 2300–4300 m. Sichuan, Xizang, Yunnan [Myanmar].

White-flowered forms, which are restricted to Yunnan, have been recognized as Iris bulleyana f. alba Y. T. Zhao (Acta Phytotax. Sin. 18: 54. 1980).

5. Iris delavayi

Rhizomes creeping, thick, ca. 1 cm in diam. Leaves grayish green, reddish at base, sword-shaped or linear, 50–80 × 0.6–1.5 cm, midvein absent, base surrounded by persistent fibers. Flowering stems 15–40 cm, solid, 1- or 2-branched near apex, 0.6–1.5 m × 0.8–1.5 cm, hollow, 2- or 3-leaved; spathes 2 or 3, green, tinged light reddish purple, broadly lanceolate, 7–11 × 1.8–2 cm, 2-flowered, apex acuminate. Flowers dark violet, ca. 9 cm in diam.; pedicel 3–6 cm. Perianth tube 1.6–1.8 cm; outer segments obovate, with central, dark purple- and white-mottled pattern, ca. 7 × 3 cm, apex retuse; inner segments obliquely spreading, oblanceolate, ca. 5.5 cm. Filaments pale purple; anthers pink. Ovary 1.8–2 cm × ca. 7 mm. Style branches pale purple, ca. 5 × 1.6 cm. Capsule cylindric to ellipsoid, 5–6.5 × 1.5–2.5 cm, 3-angled, apex not beaked. Seeds reddish brown, semiorbicular, flat, ca. 6 mm in diam. Fl. May–Jun; fr. Aug–Oct. 2n = 40*.

• Forest margins, meadows, damp places along ditches; 2400–4500 m. Guizhou, Sichuan, Xizang, Yunnan.

6. Iris clarkei

Rhizomes creeping, cylindrical. Leaves grayish green and dull on 1 surface, yellow-green and glossy on other, linear, 11–50 cm × 2–7 mm, midvein absent, base surrounded by persistent fibers. Flowering stems 8–45 cm × 2–3 mm, hollow, 1–3-leaved; spathes 3, green, slightly reddish purple at margin, lanceolate, 5.5–7 × 1–1.2 cm, (1 or)2-flowered, apex acuminate. Flowers yellow, 6.5–7 cm in diam.; pedicel 2–5 cm. Perianth tube ca. 1.3 cm; outer segments obovate, with purple-brown stripes and spots, claw with inconspicuous aurielves; inner segments erect. Stamens ca. 3 cm; anthers brown-yellow. Ovary ca. 2 cm. Style branches pale yellow, 4.4–5 × 1.4–1.6 cm. Capsule ellipsoid, 4.4–5 × 1.5–1.8 cm, 6-ribbed, apex shortly beaked. Seeds semiorbicular. Fl. May–Jun, fr. Jul–Aug. 2n = 40.

Marshes in Pinus forests, hillsides, meadows, streamsides; 3000–4000 m. Sichuan, Xizang, Yunnan [Myanmar].
Rhizomes creeping. Leaves grayish green, sword-shaped to narrowly linear, 30–40 cm × 5–12 mm in width, midvein not obvious. Rhizome stems up to 40 cm long, 0.5–1 cm in diam., spathes 3 or 4, red-brown at margins, 2-flowered, veins distinct. Flowers dark violet to blue, 10–12 cm in diam.; individual flowers 2–3 cm in diam., 4-angled, 6-ribbed. Fruit capsule 6–9 × 1.5–2 cm, oblong.; pedicel 1.5–2 cm; inner segments erect, oblong, 4.5–5 × 1–1.2 cm, brown-mottled. Seeds brown, smooth, 9–10 mm in diam.; pedicel 1.5–3 cm. Perianth tube 1.5–2 cm.


玉蝉花 yu chan hua

Iris ensata var. spontanea (Makino) Nakai; I. kaempferi Siebold ex Lemaire; I. kaempferi var. spontanea Makino; I. laevigata Fischer var. kaempferi (Siebold ex Lemaire) Maximowicz.

Rhizomes creeping, thick. Leaves linear, 30–80 cm × 5–12 mm, midvein distinct on both surfaces, apex acuminate. Flowering stems 25–100 cm, solid, 1–3-leaved; spathes 3 or 4, lanceolate, unequal, 4.5–7.5 × 0.8–1.2 cm, leathery, 2-flowered, veins distinct, raised, basal spathe shorter, apex usually acute, apical spathe longer, apex usually obtuse. Flowers dark reddish purple, 9–10 cm in diam.; pedicel 1.5–3 cm. Perianth tube 1.5–2 cm.
Rhizomes grayish brown, thick. Leaves sword-shaped, 30–60 × 0.8–1.8 cm, midvein absent, base surrounded by maroon-brown fibers. Flowering stems with 1–3 long, slender branches, 60–100 cm; spathes 3, green, ovate to lanceolate, 2–4 × 0.8–1.6 cm, 2-flowered, apex acuminate. Flowers violet or blue, 7–8 cm in diam.; pedicel slender, 2.5–3.5 cm. Perianth tube ca. 1 cm; outer segments broadly obovate, 4–4.5 × 2–2.5 cm, claw yellow, veined purple; inner segments erect, narrowly oblongobovate to subulate, short, ca. 2.5 cm. Stamens ca. 2 cm; anthers purple. Ovary ca. 1 cm. Style branches ca. 3 × 1.6–2 cm. Capsule ellipsoid to ovoid, ca. 3 × 1.8–2 cm, 6-ribbed, apex beaked. Seeds pale brown. Fl. Jul, fr. Aug–Sep. 2

Rhizomes creeping, slender, tough. Roots reddish maroon, long, slender, tough. Leaves linear or narrowly so, 4–10 cm × 2–5 mm, veins 2–4, base surrounded by yellow-brown, persistent sheaths and fibers, apex long acuminate. Flowering stems barely emerging above ground, with 2 or 3 linear leaves at base; spathes 2, narrowly lanceolate, 4–7 cm × 5–8 mm, 1-flowered, apex long acuminate. Flowers violet, 3.5–4 cm in diam.; pedicel long. Perianth tube 5–7 cm, slender; limb of outer segments spreading, with central, yellow signal patch spreading into claw, obovate, 1.8–2.4 × 1–1.6 cm, apex rounded; inner segments white, obovate, 1.4–1.9 cm × 6–9 mm. Stamens 1–1.4 cm. Style branches white, linear, 1.5–2 cm × 3–4 mm. Capsule ovoid, 2.3–2.7 × 1.2–1.5 cm, strongly 3-angled, apex shortly beaked; fruiting pedicel long. Fl. Apr–May, fr. Jun–Jul.

Forest margins, grassy hillsides. SE Liaoning [Japan, Korea].


Rhizomes creeping, slender, tough. Roots reddish maroon, long, slender, tough. Leaves linear or narrowly so, 4–10 cm × 2–5 mm, veins 2–4, base surrounded by yellow-brown, persistent sheaths and fibers, apex long acuminate. Flowering stems barely emerging above ground, with 2 or 3 linear leaves at base; spathes 2, narrowly lanceolate, 4–7 cm × 5–8 mm, 1-flowered, apex long acuminate. Flowers violet, 3.5–4 cm in diam.; pedicel long. Perianth tube 5–7 cm, slender; outer segments spreading, obovate, 3 × 0.8–1.2 cm; inner segments erect or inclined outward, oblong, narrowed into slender claw, ca. 2.5 cm × 8 mm. Stamens ca. 1.5 cm; anthers shorter than filaments. Ovary ca. 1 cm. Style branches ca. 2 cm. Capsule globose. Fl. Apr–May, fr. Jun–Aug. 2n = 32.

Meadows at forest margins, sunny hillsides; ca. 100 m. E Liaoning [Japan, Korea].


Rhizomes creeping, reddish brown, very slender. Leaves pale green, narrowly linear, 15–40 cm × 2 mm, veins 1 or 2. Flowering stems slender, 9–25 cm, 1- or 2-leaved; spathes 2 or 3, green, narrowly lanceolate, 3–4 cm, 2-flowered, apex acuminate. Flowers white or pale violet, 2.5–3 cm in diam.; pedicel 2–4 cm, slender. Perianth tube short, 3–5 mm; outer segments
marked yellow proximally, obovate, ca. 2 cm × 7 mm; inner segments obovate, smaller than outer, claw short. Stamens ca. 1 cm; anthers linear. Ovary 5–7 mm. Style branches ca. 1 cm. Capsule not seen. Fl. Apr–May, fr. Jun–Aug.

- Forest margins, grasslands in forests, grassy slopes on hot dry mountains; 1800–1900 m. Anhui, Gansu, Hebei, Hubei, Hunan, Sichuan.


紫苞鸢尾  zi bao yuan wei

Iris ruthenica var. brevituba Maximowicz; I. ruthenica var. nana Maximowicz.

Rhizomes creeping, branched, 3–5 mm in diam. Roots fibrous. Leaves green or grayish green, linear, 7–25 cm × 1–3 mm, parallel veins 3–5, base surrounded by maroon-brown fibers, apex long acuminate. Flowering stems 2–20 cm, slender, 2- or 3-leaved; spathes 2, green, reddish purple at margin, lanceolate or broadly so, 2–3.5 cm × 8–10 mm, 1-flowered. Flowers violet, 3–5.5 cm in diam.; pedicel 6–10 mm. Perianth tube 0.5–1.5 cm; outer segments with white- and deep purple-mottled patterns, oblanceolate, ca. 4 cm × 8–10 mm; inner segments erect, narrowly oblanceolate, 3.2–3.5 cm × ca. 6 mm. Stamens ca. 2.5 cm; anthers milky white. Ovary ca. 1 cm. Style branches 3.5–4 cm. Capsule globose to ovoid, 1.2–1.5 cm, 6-veined, apex not beaked. Seeds globose or pyriform, with milky white aril. Fl. May–Jun, fr. Jul–Aug. 2n = 84.

Pinus forests, grasslands, hillsides, sunny sandy places; 1800–3600 m. Anhui, Gansu, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangxi, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xinjiang, Yunnan [Kazakhstan, Korea, Mongolia, Russia; E Europe].

Iris ruthenica is very variable and grades into I. uniflora. Iris ruthenica var. nana is said to have flowering stems only 5–5.5 cm, but, according to one of us (Nottie), the type of I. ruthenica is a similarly small plant, so var. nana cannot be maintained as distinct. Iris ruthenica var. brevituba, with a short perianth tube, is similarly not worth maintaining. White-flowered forms have been recognized as I. ruthenica f. leucantha Y. T. Zhao (Acta Phytophot. Sin. 18: 56. 1980).


单花鸢尾  dan hua yuan wei

Iris ruthenica Ker Gawler var. uniflora (Pallas ex Link) Baker.

Rhizomes creeping, branched, brown. Roots fibrous. Leaves linear, 5–20 cm × 4–10 mm at anthesis, 30–40 × 1–1.5 cm in fruit, midvein absent, base surrounded by brown, persistent fibers. Flowering stems slender, 1-leaved; spathes 2, yellowish green, with slightly reddish margin, broadly lanceolate, 2–3.5 cm × 8–10 mm, membranous, 1-flowered, apex obtuse. Flowers violet, 4–4.5 cm in diam. Perianth tube ca. 1.5 cm; outer segments narrowly oblanceolate, ca. 3 cm × 8 mm; inner segments erect, narrowly lanceolate, ca. 3 cm × 3 mm. Stamens ca. 1.5 cm. Ovary ca. 5 mm. Capsule globose, 8–10 mm in diam., 6-ribbed. Fl. May–Jun, fr. Jul–Aug.

Forest margins, dry grasslands, hillsides, roadsides. Heilongjiang, Jilin, Liaoning, Nei Mongol [Korea, Mongolia, Russia].

Iris uniflora is almost certainly merely a variety of I. ruthenica, as treated by Baker (Handb. Irid. 4. 1892). A form with narrow leaves (2–6 mm wide at anthesis, ca. 10 mm wide in fruit) was described as I. uniflora var. caricina Kitagawa (Bot. Mag. (Tokyo) 49: 232. 1935), but it is scarcely worth recognizing.

20. Iris halophila Pallas, Reise Russ. Reich. 3: 713. 1776.

喜盐鸢尾  yi yan yuan wei

Rhizomes purple brown, thick, 1.3–3 cm in diam. Roots thick. Leaves erect or slightly curved, grayish green, sword-shaped, 20–60 × 1–2 cm, midvein absent. Flowering stems with 1–4 very short, lateral branches, thick, 20–40 cm × ca. 5 mm; spathes 3, green, 5.5–9 cm × ca. 2 cm, 2-flowered. Flowers yellow or violet, 5–7 cm in diam.; pedicel 1.5–3 cm. Perianth tube ca. 1 cm; outer segments fiddle-shaped, with a constriction between claw and limb, claw 2–3 × ca. 0.5 cm, limb oblong or oblanceolate, ca. 1.5 × 1 cm; inner segments oblanceolate, ca. 3.5 cm × 6–8 mm. Stamens ca. 3 cm; anthers yellow. Ovary 3.5–4 cm, distally attenuate into a long, slender beak. Style branches ca. 3.5 cm × 6 mm. Capsule greenish brown, ellipsoid-cylindric, 6–9 × 2–2.5 cm, with a pair of ridges at each angle, apex long beaked. Seeds pyriform, 5–6 mm in diam.; testa yellowish maroon, glossy, papery. Fl. May–Jun, fr. Jul–Aug.

Grasslands, hillsides, wet salty soils. Gansu, Xinjiang [Afghanistan, Kyrgyzstan, Mongolia, Pakistan, Russia, Uzbekistan; SW Asia, E Europe (Romania, Ukraine)].

One or two varieties occur in China; they are often treated as varieties or subspecies of the widespread Iris spuria Linnaeus.

20a. Iris spuria var. halophila

喜盐鸢尾 (原变种)  yi yan yuan wei (yuan bian zhong)

Iris desertorum Gueldenstaedt; I. gueldenstaedtiana Lepechin; I. spuria Linnaeus subsp. halophila (Pallas) B. Mathew & Wendelbo; I. spuria var. halophila (Pallas) Sims.

Flowers yellow. 2n = 44, 66, 88.

Grasslands, hillsides, wet salty soils. Gansu, Xinjiang [Afghanistan, Mongolia, Russia; SW Asia, E Europe (Romania, Ukraine)].


蓝花喜盐鸢尾  lan hua xi yan yuan wei


Flowers violet, or claw yellow. 2n = 44.

?Gansu, ?Xinjiang [Afghanistan, Kyrgyzstan, Pakistan, Russia, Uzbekistan; SW Asia (Iran)].

Records of this variety from China require confirmation.


白花马蔺  bai hua ma lin

Rhizomes sheathed with reddish purple fibers, creeping, thick. Leaves basal, grayish green, linear, 14–70 cm × 3–7 mm, tough, drying prominently ribbed, midvein absent. Flowering stems 3–30 cm; spathe green, lanceolate, 4.5–10 × 0.8–1.6 cm,
2–4-flowered, apex acuminate. Flowers pale violet, or partly milky white or yellow, 5–7.5 cm in diam.; pedicel 4–7 cm. Perianth tube very short, ca. 3 mm; outer segments oblongolate, 4.5–6.5 × 0.8–1.2 cm, apex obtuse or mucronate; inner segments erect, narrowly oblongolate, 4.2–4.5 cm × 5–7 mm. Stamens 2.5–3.2 cm; anthers yellow. Ovary narrowly fusiform, very long, 3.4–5 cm, grooved. Capsule narrowly cylindric, 6.5–7.5 cm × 1–1.4 cm, 6-ribbed, apex shortly beaked; fruiting pedicels unequal, 4–10 cm. Seeds maroon-brown, pyriform. Fl. Apr–Jun, fr. Jun–Sep.

Hillsides, grasslands, roadsides; 600–3800 m. Anhui, Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xinjiang, Xizang [Afghanistan, N India, Kazakhstan, Korea, Mongolia, Pakistan, Russia].

1a. Outer perianth segments pale violet, or milky white with purple veins, inner segments pale violet ............................................................ 21a. var. lactea

1b. Outer perianth segments pale violet, inner segments yellow .............................................. 21b. var. chrysanthra

21a. Iris lactea var. lactea


Rhizomes knobbly, woody. Leaves grayish green, linear, 20–50 cm × 3–4 mm, few veined, base surrounded by brown, persistent sheaths. Flowering stems 10–15 cm; spathes 3, yellowish green, ovate or broadly lanceolate, 6.5–8 × 2.5–4 cm, inflated, 2-flowered, transverse veins conspicuous between parallel veins, apex long acuminate. Flowers pale violet, 6–7 cm in diam.; pedicel 1–1.5 cm. Perianth tube 2.5–4 cm, slender; outer segments narrowly spatulate, 3.5–5 × 8–10 mm, midvein papillose; inner segments narrowly lanceolate or broadly linear, 3.5–4 cm × 7–8 mm. Stamens 3–3.5 cm; anthers yellowish purple. Ovary ca. 1.5 cm × 2.5–3 mm. Style branches 3.5–3.8 cm × ca. 6 mm. Capsule ellipsoid-cylindric, 2.5–4 × ca. 1 cm, 3-angled, 6-veined, angles thickened, apical beak 2–4.5 cm. Fl. May, fr. Jul–Aug.

Sandy grasslands, dunes, Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Qinghai, Xinjiang [Mongolia, Russia].


多斑鸢尾 duo ban yuanshui

Plants densely tufted. Rhizomes knobbly, woody. Leaves grayish green, narrowly sword-shaped or linear, 17–70 cm × 2–8 mm, midvein absent, base surrounded by reddish purple, persistent sheaths and fibers. Flowering stems 10–40 cm × ca. 7 mm, 1- or 2-leaved; spathes 3, green, lanceolate, 7.5–12 × 1.6–2.5 cm, 2-flowered. Flowers whitish and violet, flatish, 7.5–9 cm in diam.; pedicel 4.5–9.5 cm. Perianth tube ca. 0.3 cm; outer segments spreading, subulate, green, or yellowish tinged, purple reticulate veined, oblong, 2.5–3 × 0.5–0.7 cm, limb whitish purple at center, violet at margin, oblong-cylindric, ca. 1.5 × 0.9 cm; inner segments spreading, violet, oblong-cylindric, 3.3–4.5 cm × 7–8 mm. Anthers pinkish, ca. 3 cm. Ovary distally attenuate into beak ca. 1 cm. Style branches violet, 3.5–4 cm. Capsule cylindric, 3.5–7 × ca. 1.6 cm, apex beaked. Fl. Jun–Aug, fr. Jul–Sep.

• Open Picea forests, meadows, sunny banks and damp places near riversides; 2500–3700 m. Gansu, Qinghai, Sichuan, Xizang, Yunnan.


准噶尔鸢尾 zung ga er yuanwei

Plants densely tufted. Rhizomes knobbly. Leaves grayish green, linear, 15–23 cm × 2–3 mm at anthesis, 70–80 cm × 7–10 mm in fruit, base surrounded by maroon-brown, persistent sheaths. Flowering stems 25–50 cm, glabrous, 3- or 4-leaved; spathes 3, green, 7–14 × 1.8–2 cm, 2-flowered, apex shortly acuminate. Flowers violet, fiddle-shaped, 5.5–5 × ca. 1 cm, limb ovate or elliptic, inner segments erect, oblong-cylindric, ca. 3.5 cm × 5 mm. Stamens

Shanxi [Mongolia].
ca. 2.5 cm; anthers brown. Ovary ca. 2.5 cm. Style branches ca. 3.5 × 1 cm. Capsule ovoid to cylindric, 4–6.5 × 1.5–2 cm, leathery, 3-angled, reticulate veined, apex long beaked. Seeds maroon-brown, pyriform. Fl. Jun–Jul, fr. Aug–Sep.

Sunny grasslands, stony hillsides. *Gansu*, *Ningxia*, *Qinghai*, *Shaanxi*, *Sichuan*, Xinjiang [Afghanistan, Kazakhstan, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan; SW Asia (Iran)].

One of us (Noltie) suspects that Chinese records of *Iris songarica*, except those from Xinjiang, in fact refer to *I. farreri*, as does some of the description above. Zhao differentiates the two species mainly on flower color, which is no doubt variable. Noltie considers the shape of the flower to be much more important, being flattish in *I. farreri* but funnelform in the C Asian *I. songarica*.


细叶鸢尾 xi ye yuan wei

Rhizomes dark brown, knobby, woody. Roots tough. Leaves grayish green, linear, twisted, 20–60 cm × 1.5–2 mm, midvein absent, base surrounded by reddish brown, persistent sheaths. Flowering stems not emerging above ground; spathes 3 or 4, lanceolate, 5–10 cm × 8–10 mm, 2- or 3-flowered, apex long acuminate. Flowers pale violet, 4.5–8 cm; outer segments white tinged yellow at center, veined darker, violet at margin, spatulate, 4.5–6 × ca. 1.5 cm, papillose along midvein; inner segments erect, oblanceolate, ca. 5 cm × 5–9 mm. Stamens ca. 3 cm. Ovary cylindric, 7–12 × ca. 2 mm. Style branches ca. 4 cm × 4–5 mm. Capsule ovoid, 3.2–4.5 × 1.2–1.8 cm, apex short beaked. Fl. Apr–May, fr. Aug–Sep. 2n = 14×.

Grassy slopes, fixed dunes, sandy and gravelly soil; 1300–3700 m. Gansu, Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Xinjiang, Xizang [Afghanistan, Kazakhstan, Mongolia, Pakistan, Russia, SW Asia (Iran)].


青海鸢尾 qing hai yuan wei

Rhizomes knobly. Leaves grayish green, linear, 5–25 cm × 2–3 cm, midvein absent, base surrounded by maroon-brown fibers. Flowering stems not emerging above ground; spathes 3 or 4, green, lanceolate, 6–10 × 0.6–1.8 cm, 1- or 2-flowered. Flowers violet, 4.5–5 cm in diam. Perianth tube filiform, 3–6 cm; outer segments narrowly oblanceolate, limb spreading, 3–3.5 cm × 8–11 mm; inner segments narrowly oblanceolate, ca. 3 cm × 4 mm. Stamens 1.8–2 cm. Ovary ca. 1.5 cm. Style branches ca. 2.5 cm × 3 mm. Capsule not seen. Fl. Jun–Jul, fr. Jun–Aug.

* Sunny grasslands, mountainsides, loess hills; 2500–3100 m. SW Gansu, NE Qinghai.


天山鸢尾 tian shan yuan wei

*Iris tenuifolia* Pallas var. *thianschanica* Maximowicz; *I. thianschanica* (Maximowicz) Vvedensky.

Plants forming hard tussocks. Rhizomes knobly. Leaves linear, 20–40 cm × ca. 3 mm, rigid, midvein absent, base surrounded by maroon-brown, persistent sheaths. Flowering stems not or only slightly emerging above ground; spathes 3, 10–15 × ca. 1.5 cm, 1- or 2-flowered, midvein distinct, apex acuminate. Flowers pale violet, veined darker, 5.5–7 cm in diam. Perianth tube filiform, to 14 cm; outer segments oblanceolate or narrowly obovate, ca. 6 × 1–2 cm; inner segments oblanceolate, 4.5–5 cm × 7–8 mm. Stamens ca. 2.5 cm. Ovary ca. 1.2 cm. Style branches ca. 4 cm × 8 mm. Capsule subsessile, reddish brown, ovoid to cylindric, 4–7 × ca. 2 cm, 6-veined, apex shortly beaked. Fl. May–Jun, fr. Jul–Sep.

Sunny grasslands, hillsides. Gansu, Nei Mongol, Ningxia, Qinghai, Sichuan, Xinjiang, Xizang [Afghanistan, Mongolia, Russia, Tajikistan; SW Asia (Iran)].

This species has usually been considered to be restricted to C Asia, and would therefore be expected to occur in China only in Xinjiang and W Xizang. Two of us (Noltie and Mathew) have seen no material from China, so the records from the other, more eastern provinces should be viewed with caution and are likely to refer to the doubtfully separable *Iris tenuifolia*.


华夏鸢尾 hua xia yuan wei

Leaves grayish green, linear, 15–25 cm × 3–4 mm at anthesis, ca. 45 cm × 6 mm in fruit, midvein absent, base surrounded by maroon-red, persistent sheaths. Flowering stems not emerging above ground; spathes 3 or 4, green, lanceolate, 8–12 × 1.2–2 cm, 2-flowered, midvein distinct, apex acuminate. Flowers violet 6–7.5 cm in diam.; pedicel filiform, 1.5–2 cm. Perianth tube 7–9 cm, slender, apex somewhat expanded; outer segments narrowly oblanceolate, 4–5.5 cm × ca. 5 mm; inner segments narrowly oblanceolate, 4–5 cm × 5 mm, sparsely papillose along midvein. Stamens 2.8–3.5 cm; anthers blue. Ovary 1.3–1.5 cm. Style branches linear, 3.5–4 cm × ca. 3 mm. Capsule not seen. Fl. Apr, fr. Jun–Aug.

* Open hillsides, grasslands. Anhui, Hubei, Jiangsu, Zhejiang.


矮鸢尾 ai yuan wei

Rhizomes short, stout, woody. Leaves linear, slightly twisted, 10–20 × 3 cm, midvein absent, base surrounded by yellowish brown, persistent sheaths. Flowering stems not emerging above ground; spathes 2 or 3, narrowly lanceolate, 6–8 cm × 8–10 mm, 2-flowered, apex long acuminate. Flowers yellow, purple spotted, 3–5 cm in diam.; pedicel ca. 1 cm. Perianth tube 4–5 cm, slender; outer segments narrowly oblanceolate, ca. 3 cm × 5 mm, limb spreading; inner segments erect, narrowly oblanceolate, ca. 2 cm × 2–3 mm. Stamens 1.5–1.8 cm; anthers yellowish or purplish. Ovary ca. 1 cm. Style branches shorter and narrower than perianth segments. Capsule ellipsoid, ca. 2 cm × 7–8 mm, 6-ribbed, apex shortly beaked. Fl. May, fr. Jun–Aug.

* Dry hillsides. S Liaoning.

An endangered species.


泥泊尔鸢尾 ni bo er yuan wei
**Iris nepalensis** D. Don; *I. yunnanensis* H. Lévêillé; *Junop-sis decorata* (Wallich) W. Schulze.

Plants densely tufted, with small growing point. Roots swollen, fusiform, tuberous. Leaves linear, 10–35(–60) cm × 2–8 mm, veins 2 or 3, base surrounded by brown fibers. Flowering stems sometimes shortly 1-branched, 10–25 cm × 2–3 mm; spathes 3, green, lanceolate, 4.5–9.5 cm, 2-flowered. Flowers violet or pale blue, 2.5–6 cm in diam. Perianth tube 2.5–3 cm; outer segments spreading, obovate, 2.5–4 × 0.8–1.8 cm, crest central, yellow, low, undulate; inner segments erect, narrowly elliptic, 2.5–4 × 0.5–1.2 cm. Stamens 1.5–2.5 cm; anthers yellowish white. Style branches 2–3.5 cm. Capsule ellipsoid to ovoid, 2–3.5 × ca. 1 cm, apex shortly pointed. Fl. Jun, fr. Jul–Aug. 2n = 24.

Grassy hill-sides on plateaus, open stony pastures, cliffs; 2800–3100 m. Sichuan, Xizang, Yunnan [NE India, Myanmar, ?Nepal, Thailand].

White-flowered forms from Yunnan have been described as *Iris decorata* var. *leucantha* X. D. Dong & Y. T. Zhao (Bull. Bot. Res., Harbin 18: 150. 1998). Much further work needs to be undertaken on the *I. decorata* group. According to one of us (Noltie), true *I. decorata* is a large plant probably restricted to Bhutan, Nepal, and S Xizang. The plant commonly occurring in China is much smaller and grades into *I. collettii*.


**高原鸢尾** gao yuan yuan wei

Plants densely tufted, with small growing point. Roots swollen, fusiform, tuberous. Leaves basal, grayish green, linear or sword-shaped, 10–27 cm × 2–7 mm at anthesis, 20–35 cm × 3–9 mm in fruit, veins 2 or 3, base surrounded by brown fibers. Flowering stems simple, 2–8 cm or not developed; spathes 3, green, lanceolate, 2–5 cm, 2–4-flowered, apex acuminate. Flowers violet, 2–5 cm in diam. Perianth tube slender, 3–5 cm; outer segments spreading, elliptic-obovate, 2.5–3 cm, crest orange, low, undulate; inner segments erect, oblanceolate, 1.7–2.7 cm. Stamens ca. 1.3 cm; anthers yellow. Style branches ca. 2 cm. Capsule green, ovoid, 1.5–2.5 × 1.3–1.5 cm, apex shortly beaked. Seeds black-brown, arillate. Fl. May–Jun, fr. Jul–Aug. 2n = 28.

Open *Pinus* and *Quercus-Pinus* forests, sunny dry grasslands on plateaus; 1700–3700 m. Sichuan, Xizang, Yunnan [NE India, Myanmar, ?Nepal, Thailand, Vietnam].

1a. Flowering stems developed, 2–8 cm...... 32a. var. *collettii*

1b. Flowering stems not developed .............. 32b. var. *acaulis*

32a. *Iris collettii* var. *collettii*

**高原鸢尾（原变种）** gao yuan yuan wei (yuan bian zhong)

*Iris dactiloxii* H. Lévêillé.

Flowering stems developed, 2–8 cm.

Open *Pinus* forests, sunny dry grasslands on plateaus; 1700–3500 m. Sichuan, Xizang, Yunnan [NE India, Myanmar, ?Nepal, Thailand, Vietnam].

32b. *Iris collettii* var. *acaulis*


**大理鸢尾** da li yuan wei

*Iris daliensis* X. D. Dong & Y. T. Zhao.

Flowering stems not developed.

- *Quercus-Pinus* forests; 2200–3700 m. Sichuan, Yunnan.

Until work on the *I. decorata* group has been completed, it seems unwise to recognize *I. decorata* at the rank of species.


**小髯鸢尾** xiao ran yuan wei

Plants densely tufted, with small growing point. Roots swollen, fusiform, tuberous. Leaves linear, slightly curved, 9–19 cm × 2–5 mm at anthesis, to 30 × 1 cm in fruit, stiff, thickened veins 2 on 1 surface, 1 on other, base surrounded by brown fibers, apex finely acuminate. Flowering stems simple, not developed or to 4 cm; spathes 3, green, lanceolate, 2–4-flowered, longest one 2–6 cm. Flowers dark violet, 2–7 cm in diam. Perianth tube pale green, 3–10 cm, slender; outer segments oblanceolate, 3.5–2 × 0.7–1.3 cm, limb spreading, with white streaks radiating from a central, yellow, fimbriate crest; inner segments spreading, sometimes streaked white at base of limb, narrowly oblanceolate, 2.7–5 × 0.6–1 cm. Stamens ca. 2 cm; anthers cream. Style branches 3–4 cm; terminal lobes erect. Capsule ellipsoid, 2–2.5 × ca. 1.2 cm. Seeds pyriform, arillate. Fl. May–Jul, fr Sep.

- Grassy plateaus; 2400–3600 m. Yunnan.


**宽柱鸢尾** kuan zhu yuan wei

Rhizomes indistinct. Roots fleshy. Leaves grayish green, narrowly linear, 15–25 cm × 2–3 mm, veins 2 or 3, base surrounded by brown fibers. Flowering stems simple or 1-branched, 6–14 cm; spathes 3, green, narrowly lanceolate, 2.5–4.5 cm × 6–8 mm, 2-flowered, apex acuminate. Flowers violet, ca. 5 cm in diam. Outer perianth segments obovate, limb 3.5–4 × ca. 1.5 cm, with a crest; inner segments narrowly ovate or broadly lanceolate, 3.5 × 1.5 cm. Style branches broad, ca. 4 × 1.5 cm; terminal lobes incurved toward center of flower. Fl. May–Jun, fr. Jul–Sep.

- Forest margins, grasslands near rice fields; 3100–4000 m. SE Xizang.

Two of us (Noltie and Mathew) have not seen the type of *Iris latistyla*, and consider the taxon to be doubtfully distinct from *I. decorata*.

35. *Iris dichotoma* Pallas, Reise Russ. Reich. 3: 712. 1776.

**野鸢尾** ye yuan wei

*Pardanthopsis dichotoma* (Pallas) Lenz.

Rhizomes erect, brown, very short, stout. Roots long, thick. Leaves in basal fans and alternately on flowering stems proximally, grayish green, sword-shaped, slightly curved, 15–35 × 1.5–3 cm, midvein absent. Flowering stems dichotomously branched, 40–60 cm, leafy; spathes 4 or 5, green, lanceolate, 1.5–2.3 cm, 3- or 4-flowered, apex obtuse. Flowers violet, pale blue, or cream with purplish brown markings, 4–4.5 cm in diam., spiralling after anthesis; pedicel exserted from spathes, 2–3.5 cm, stiff, persistent. Perianth tube extremely short; outer segments broadly oblanceolate, 3–3.5 × ca. 1 cm, claw striped with yellowish brown, limb with darker spots on a central,
pale patch; inner segments narrowly obovate, ca. 2.5 cm × 6–8 mm, apex retuse. Stamens 1.6–1.8 cm. Ovary green, ca. 1 cm. Style branches flat, ca. 2.5 cm. Capsule yellowish green, cylindric, 3.5–5 × 1–1.2 cm. Seeds dark brown, elliptic, with small wings. Fl. Jul–Aug, fr. Aug–Sep. \( 2n = 32^\circ. \)

*Quercus* forests, sandy grasslands, dry sunny areas; 200–2300 m. Anhui, Gansu, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangxi, Jilin, Liaoning, Nei Mongol, Ningxia, Shaanxi, Shandong, Shanxi, Yunnan [Korea, Mongolia, Russia].

This species was treated by Goldblatt et al. (in Kubitzki, Fam. Gen. Vasc. Pl. 3: 326. 1998) under *Pardanthopsis* (Hance) Lenz, a monospecific genus between *Iris* and *Belamcanda*.

### 36. *Iris subdichotoma*


**zhong dian yuan wei**

Rhizomes obscure. Roots thick. Leaves in basal fans, grayish green, sword-shaped, slightly curved, 22–40 × 1.1–2 cm, midvein absent, base surrounded by brown fibers. Flowering stems 2–5-branched, 25–40 cm, bearing only reduced leaves; spathes 3–5, green, 2.5–3.5 cm, 2–4-flowered. Flowers pale bluish to violet, 4.5–5 cm in diam.; pedicel exserted from spathes, 3–4 cm, stiff, persistent. Perianth tube ca. 2 cm; outer segments obovate, ca. 4 × 7 cm; inner segments narrowly obovate, ca. 3 cm × 4 mm. Stamens ca. 2.2 cm. Ovary ca. 1.5 × 0.5 cm. Style branches ca. 3 cm. Capsule cylindric, 5–6 × ca. 1 cm, 6-ribbed. Seeds maroon-brown, 7.5–8.5 mm, with small wings. Fl. Jan–Aug, fr. Jul–Sep.

- Grasslands, open hillsides or banks near riversides; 1800–2700 m. NW Yunnan.

### 37. *Iris japonica*


**hu die hua**

*Iris chinensis* Curtis (1797), not Bunge (1833); *I. fimbriata* Ventenat.

Rhizomes dimorphic: suberect, thick; creeping, long, slender. Leaves basal, dark or yellowish green, glossy on 1 surface, dull on other, reddish purple at base, sword-shaped, 25–60 × 1.5–3 cm, midvein absent. Flowering stems erect, with 5–12 short, slender branches near apex; spathes 3–5, broadly lanceolate, 0.8–1.5 cm, 2–4-flowered, apex obtuse. Flowers pale bluish, 4.5–5.5 cm in diam.; pedicel 1.5–2.5 cm, stiff, persistent. Perianth tube 1.1–1.5 cm; outer segments obovate or elliptic, 2.5–3 × 1.4–2 cm, limb spreading, with blue blotching around central, yellow patch around prominent, yellow crest, margin denticulate, undulate, apex retuse; inner segments broadly lanceolate, 2.3–3 × 1.5–2 cm, limb spreading, spotted yellow around crest, margin undulate, apex retuse; inner segments broadly lanceolate, 2.5 × 1 cm, apex retuse. Stamens ca. 1.5 cm; anthers yellow. Ovary ca. 6 mm. Style branches pale blue, ca. 2 cm × 8 mm; terminal lobes fimbriate. Capsule ellipsoid, 2.5–3.5 × 1–1.4 cm, 6-ribbed, reticulate veined. Seeds dark brown. Fl. Apr, fr. May–Jul. \( 2n = 28^\circ. \)

- Forest margins, hillside groves, ditches; 1600–2400 m. Guangxi, Guizhou, Sichuan, Yunnan.

### 38. *Iris formosana*


**taiwan yuan wei**

Rhizomes erect, thick, producing slender stolons. Leaves grayish green on 1 surface, bright green on other, sword-shaped, 30–40 × 2–2.5 cm, veins 3–5. Flowering stems 4–5-branched, 30–40 cm; spathes 4–6, green, 3–5-flowered, margin membranous. Flowers whitish, 7–8 cm in diam. Perianth tube ca. 1 cm; outer segments obovate, 4–5 × ca. 2.5 cm, limb reflexed, with blue lines and yellow-brown spots around prominent crest, margin denticulate, undulate; inner segments spreading obliquely, pale blue, obovolate to oblong, 2.5–3 × ca. 1.5 cm, adaxially with dense, glandular trichomes, margin slightly denticulate. Anthers oblong to linear, 8–9 mm; filaments white, ca. 1.5 cm. Ovary ca. 1 cm. Style branches pale blue, ca. 2 cm × 6–7 mm; terminal lobes fimbriate. Capsule oblong to ovoid-cylindric, apex with persistent perianth tube. \( 2n = 48^\circ. \)

- Forest margins, hillside groves, ditches; 500–1000 m. NE Taiwan.

Two of us (Noltie and Mathew) consider this species to be doubtfully distinct from *Iris japonica*.

### 39. *Iris confusa*


**bian zhu lan**

Rhizomes creeping, stout. Stems erect, canelike, to 1.2 m, flattened, with prominent scars and bases of old leaf sheaths. Leaves 10 or more clustered into a terminal fan, yellowish green, glossy on 1 surface, somewhat glaucous on other, sword-shaped, 28–80 × 3–6 cm, veins obscure. Flowering stems with 5–8 slender branches near apex; spathes 4–6, ca. 1.5 cm, membranous, 3–5-flowered. Flowers white or bluish tinged, 4–5.5 cm in diam.; pedicel 1.5–2 cm, stiff, persistent. Perianth tube ca. 1.5 cm; outer segments elliptic, 2.3–3 × 1.5–2 cm, limb spreading, spotted yellow around crest, margin undulate, apex retuse; inner segments broadly lanceolate, 2.5 × 1 cm, apex retuse. Stamens ca. 1.5 cm; anthers yellow. Ovary ca. 6 mm. Style branches pale blue, ca. 2 cm × 8 mm; terminal lobes fimbriate. Capsule ellipsoid, 2.5–3.5 × 1–1.4 cm, 6-ribbed, reticulate veined. Seeds dark brown. Fl. Apr, fr. May–Jul. \( 2n = 30^\circ. \)

- Forest margins, open groves, hillside grasslands, ditches; 1600–2400 m. Guangxi, Guizhou, Sichuan, Yunnan.

### 40. *Iris wattii*

Baker, Handb. Irid. 17. 1892.

**shan xing yuan wei**

Rhizomes thick, ca. 1 cm in diam.; nodes distinct. Stems 50–100 × 1–1.5 cm, flattened, with prominent scars and bases of old leaf sheaths. Leaves 10 or more clustered into a terminal fan, yellowish green, broadly sword-shaped, 50–70 × 5–7 cm, veins ca. 10, apex acuminate. Flowering stems with 5–7 short, stout branches near apex, 30–50(–100) cm; spathes 3–5, green, narrowly ovate, 1.5–2.5 × ca. 1 cm, 2–6-flowered, apex obtuse. Flowers bluish violet, 7.5–8 cm in diam.; pedicel 1.5–3 cm, stout, persistent. Perianth tube ca. 2 cm; outer segments obovate,
mottled darker, or with linear patterns around irregular, yellowish crest, 4.5–6 × 2.4–4 cm, margin undulate; inner segments spreading, narrowly ovalate, 3.5–4 × 1–1.3 cm. Stamens ca. 3 cm; anthers yellow. Ovary green, 7–8 mm. Style branches pale blue, 3–3.5 cm × 8–10 mm; terminal lobes fimbriate. Capsule cylindric, 2.8–4.5 × 1.3–1.5 cm, apex mucronate but not beaked. Seeds brown, semiobovicular. Fl. Apr.–May; fr. May–Aug. 2n = 30.

Grasslands at forest margins, wet riversides; 1800–2200 m. Xizang, Yunnan [NE India, Myanmar].


鸢尾 yuan wei

Iris chinensis Bunge (1833), not Curtis (1797); I. rosthornii Diels.

Rhizomes creeping, thick. Roots slender. Leaves mainly in basal fans, yellowish green, broadly sword-shaped, curved, 15–50 × 1.5–3.5 cm, base surrounded by fibers. Flowering stems 1- or 2-branched, 20–40 cm, 1- or 2-leaved; spathes 2 or 3, green, lanceolate, 3.5–7.5 × 2–2.5 cm, 1- or 2-flowered, apex acuminate. Flowers bluish violet, ca. 10 cm in diam.; pedicel to 1 cm. Perianth tube slender, to 3 cm; outer segments mottled darker, white, irregularly toothed crest, broadly ovate, 5–7 × ca. 4 cm, apex retuse; inner segments spreading horizontally at anthesis, elliptic, 4.5–5 × ca. 3 cm. Stamens ca. 2.5 cm; anthers bright yellow. Ovary cylindric, 1.8–2 cm. Style branches pale bluish violet, ca. 3.5 cm. Capsule ellipsoid or obovoid, 4.5–6 × 2–2.5 cm. Seeds black-brown, pyriform, with very small aril. Fl. Apr.–May; fr. Jun.–Aug. 2n = 24, 28, 32.

Forest margins, sunny banks, meadows, damp places, beside water; 500–3500 m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangsu, Jiangxi, Qinghai, Shaanxi, Shanxi, Sichuan, Xizang, Yunnan, Zhejiang [Japan, Korea, 3 Myanmar].

White-flowered plants have been recognized as Iris tectorum f. alba (Dykes) Makino (Fl. Nipp. 714. 1940, based on I. tectorum var. alba Dykes, Gen. Iris, 103. 1913). The native distribution and ecology of I. tectorum are uncertain because the species is very widely cultivated and naturalized in China. It is also cultivated in Bhutan (where it has become naturalized), and India.

42. Iris milesii Foster, Gard. Chron., n.s., 20: 231. 1883.

红花鸢尾 hong hua yuan wei

Rhizomes thick, 1–1.5 cm in diam., stout; nodes distinct. Leaves alternate on stems, grayish green, broadly sword-shaped, 40–60 × 2.5–5 cm. Flowering stems erect, 2–4-branched, 60–90 cm, leafy proximally; branches 15–20 cm; spathes several, 2.5–3.5 × 2–2.5 cm, 3- or 4-flowered. Flowers pale reddish purple, 7–8 cm in diam.; pedicel 2.5–4 cm. Perianth tube 1–1.5 cm; outer segments ovate, marked with dark lines and mottling proximally, crest orange-yellow; inner segments narrowly ovalate, 4–5 cm, apex retuse. Stamens ca. 2.5 cm; anthers milky white. Ovary cylindric, ca. 3 cm, 3-angled. Style branches pale reddish purple, ca. 3 cm; terminal lobes fimbriate. Capsule ovoid-globose, reticulate veined. Seeds black-brown, pyriform, with white aril. Fl. Apr.–May; fr. Jun.–Aug. 2n = 26.

Forest margins on hillsides, open groves, wet places. Sichuan, Xizang, Yunnan [NW India].

Two of us (Noltie and Mathew) have seen no Chinese specimens of this species, which otherwise occurs in NW India (the type locality). Such a disjunct distribution seems unlikely, and it is possible that the Chinese plants represent an as yet undescribed taxon.


小花鸢尾 xiao hua yuan wei

Iris cavaleriei H. Léveillé; I. grijsii Maximowicz.

Rhizomes creeping, brown. Roots thick. Leaves dark green, glossy, linear, 15–40 cm × 4–12 mm, veins 3–5, base with fibers. Flowering stems 12–25 cm, 1- or 2-leaved; spathes 2 or 3, green, narrowly lanceolate, 5.5–8 cm, 1- or 2-flowered, apex acuminate. Flowers violet or light blue, 5.6–6 cm in diam.; pedicel 3–7 cm. Perianth tube ca. 5 mm; outer segments spreading, spatulate, with a central, white, 2-lobed patch, 3–4 × 0.9–1.3 cm, crest yellow, low; inner segments erect, narrowly oblanceolate, 3.7–8 × 0.9–1 cm. Stamens ca. 1.2 cm; anthers white. Ovary fusiform, 1.6–2 cm × ca. 0.5 mm. Style branches ca. 2.5 cm × 7 mm. Capsule held at right angle to pedicel, narrowly ellipsoid, ca. 3 cm, apex long beaked. Seeds dark brown, angled, with aril drying as a pale brown wing. Fl. May, fr. Jul.–Aug.

• Forest margins, open groves, roadsides; 500–1800 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangsu, Jiangxi, Qinghai, Shaanxi, Shanxi, Sichuan, Xizang, Yunnan, Zhejiang.

White-flowered forms have been described as Iris specularis var. alba V. H. C. Jarrett. (Suniyatsena 3: 265. 1937)


小花鸢尾 xiao yue yuan wei

Rhizomes long, slender. Roots slender. Leaves yellowish green, narrowly linear, 5–27 cm × 1–7 mm at anthesis, 40–55 cm × 7–8 mm in fruit, veins 1 or 2. Flowering stems 5–28 cm, 1- or 2-leaved; spathes 2, green, narrowly lanceolate, 3.5–5.5 cm × ca. 6 mm. 1-flowered. Flowers pale violet, 3.5–5 cm in diam.; pedicel 6–10 mm. Perianth tube 2.5–3(–5) cm; outer segments obovate, with central, horseshoe-shaped, mottled pattern, ca. 2.5 × 1–1.2 cm, crest borne on midvein, yellow, low; inner segments erect, narrowly oblanceolate, 2.2–2.5 × ca. 7 mm. Stamens white, ca. 1 cm. Ovary green, 4–5 mm. Style branches pale violet, ca. 1.8 cm × 4 mm. Capsule globose, 1.2–1.5 cm in diam., apex shortly beaked. Fl. Mar.–Apr; fr. May–Jul.

• Forests, forest margins, open groves, hillside, grasslands, open fields, roadsides. Anhui, Henan, Hubei, Hunan, Jiangsu, Zhejiang.

• Forests, forest margins, open groves, hillside, grasslands, open fields, roadsides. Anhui, Henan, Hubei, Hunan, Jiangsu, Zhejiang.

44a. Iris proantha var. proantha

小花鸢尾(原变种) xiao yue yuan wei (yuan bian zhong)

Iris pseudorossii S. S. Chien.

Leaves 5–20 cm × 1–2.5 mm at anthesis, 40–50 cm × ca. 7 mm in fruit. Flowering stems 5–7 cm. Flowers 3.5–4 cm in diam. 2n = 32*, 44*.

• Forest margins, open groves, hillside, grasslands. Anhui, Henan, Hubei, Hunan, Jiangsu, Zhejiang.

Cu zhuang xiao yuan wei


Leaves ca. 27 cm × 7 mm at anthesis, ca. 55 cm × 8 mm in fruit. Flowering stems 20–28 cm. Flowers ca. 5 cm in diam.

- Open fields, roadsides. Zhejiang.

45. Iris flavissima Pallas, Reise Russ. Reich. 3: 715. 1776.

Huang jin yuan wei

Iris dahurica Herbert ex Klatt.

Rhizomes creeping, branched, long. Roots thick. Leaves linear, 5–15 cm × 1.5–3 cm at anthesis, ca. 30 cm × 5 mm in fruit, midvein absent, base surrounded by brown fibers. Flowering stems short; spathe 2 or 3, narrowly lanceolate, 1–2-flowered, apex acuminate. Flowers yellow, 4–5 cm in diam. Perianth tube 2.5–3.5 cm; outer segments elliptic to ovate, with brown, linear patterns; inner segments erect, ob lanceolate, 2.5–3 cm × ca. 4 mm. Stamens ca. 2 cm; anthers yellow. Ovary cylindric. Style branches bright yellow, ca. 2.5 cm. Capsule ellipsoid, 3.5–4.5 × 1–1.5 cm, apex acute. Fl. Apr–May, fr. Jun–Aug. 2n = 22, 26*

Dry grasslands, fixed desert fields. W Heilongjiang, W Jilin, Nei Mongol, Ningxia, Xinjiang [Kazakstan, Mongolia, Russia].

Iris flavissima is here treated as a distinct, E Asian species, but is often placed in synonymy under the widespread, Eurasian species I. humilis Georgi (I. arenaria Waldstein & Kitabel).

46. Iris bloudowii Ledebour, Icon. Fl. Ross. 2: 5. 1830.

Zhong ya yuan wei

Iris flavissima Pallas var. bloudowii (Ledebour) Baker; I. flavissima var. umbro Bunge.

Rhizomes not widely creeping, thick. Roots thick. Leaves grayish green, sword-shaped, slightly curved, 8–12 cm × 4–8 mm at anthesis, 15–25 × 0.8–1.2 cm in fruit, midvein absent, veins 5 or 6, apex shortly acuminate. Flowering stems 8–10 (–30) cm, base with erect, slender, sheathlike leaves persisting as fibers; spathes 2 or 3, with some reddish color, oblanceolate, ca. 4 × 1.6–2 cm, 2-flowered, apex obtuse. Flowers bright yellow, 5–5.5 cm in diam.; pedicel 6–10 mm. Perianth tube 1–1.5 cm; outer segments obovate, ca. 4 × 2 cm, beard yellow; inner segments erect, ob lanceolate, 3.4–5 × 1–1.2 cm. Stamens 1.8–2.2 cm. Ovary ca. 1.5 cm. Style branches bright yellow, ca. 2.5 cm. Capsule narrowly ovoid, apex acute, obscurely beaked. Seeds dark brown, ellipsoid, ca. 5 × 3 mm, with white aril. Fl. May, fr. Jun–Aug.

Grasslands at forest margins, sunny dunes. Xinjiang [Kazakstan, Mongolia, Russia].


Chang bai yuan wei

Rhizomes not widely creeping, thick. Roots fleshy. Leaves slightly curved, 10–15 × 0.5–1 cm at anthesis, ca. 30 × 1.5 cm in fruit, veins 2–4, base surrounded by fibers, apex shortly acuminate. Flowering stems 15–20 cm, base with erect, slender, sheathlike leaves; spathes 3, green, broadly lanceolate, 3.5–5 × 1–1.8 cm, 1- or 2-flowered, apex acuminate. Flowers yellow, 4–5 cm in diam.; pedicel 6–7 cm. Perianth tube 2–2.5 cm; outer segments with brown, linear patterns, obovate, 4–4.5 × 1.5–2 cm, beard yellow, dense; inner segments erect, narrowly elliptic, ca. 3.5 cm. Stamens ca. 2 cm; anthers yellow. Ovary 1–1.2 cm. Style branches ca. 3 cm × 4–5 mm. Capsule fusiform, ca. 6 × 1.5 cm, 6-veined, apex long beaked. Fl. May, fr. Jun–Aug. 2n = 14*, 34.

Open groves, sunny banks; 400–800 m. Heilongjiang, Jilin, Liaoning [Korea, Russia].


Wan ye yuan wei

Rhizomes creeping, thick, ca. 2 cm in diam. Roots few branched, thick. Leaves glaucous green, falcate, 10–20 × 1–1.5 cm, middle part slightly wider. Flowering stems 8–12 cm, leafless, base with swollen, curved, sheathlike leaves with persistent bases; spathes 3, lanceolate, 5–6 × 1.3–1.8 cm, membranous, 2-flowered, apex acuminate. Flowers bright yellow with dark brown lines, 4.5–6 cm in diam. Perianth tube 2–3 cm; outer segments obovate, ca. 4.5 × 1.5 cm, beard pale yellow; inner segments oblanceolate, ca. 4 × 1.3 cm. Stamens ca. 2.2 cm; anthers yellow. Ovary cylindric, 1.8–2.2 cm. Style branches ca. 3 cm × 4 mm. Capsule oblong-ellipsoid, ca. 4 × 2 cm, apex rounded, shortly beaked. Seeds reddish brown, pyriform, asymmetric. Fl. May–Jun, fr. Jul–Sep.

- Grasslands on hillsides. Xinjiang.


Shui xian hua yuan wei

Rhizomes very short, producing slender stolons. Leaves linear, 12–25 cm × 2–3 mm, midvein absent, apex obtuse or acute. Flowering stems simple, 20–30 cm, slender; spathes 2, purple, lanceolate, 2.5–3.3 × ca. 1.2 cm, rigid, 1-flowered. Flowers sessile, yellow, flat, 5–5.5 cm in diam. Perianth tube 3–4 mm; outer segments spreading horizontally, elliptic or obovate, ca. 3.5 × 2.5 cm, beard narrow, sparse; inner segments spreading horizontally, narrowly ovate, 2.8–3 × ca. 1.6 cm. Stamens ca. 1.3 cm. Ovary ca. 1.5 cm. Style branches spreading, ca. 1.5 cm × 8 mm; terminal lobes irregularly toothed. Fl. Apr–May, fr. Jun–Aug.

- Open places in forests, forest margins, hillside grasslands. Sichuan.


Mo bao yuan wei

Rhizomes creeping, thick, 1.5–2.2 cm in diam., tough. Leaves grayish green, falcate, 10–18 × 1–1.8 cm, base surrounded by brown fibers. Flowering stems ca. 10 cm, leafless; spathes 3, broadly lanceolate, 4.5–5.5 × 1.5–2 cm, membranous, 2-flowered, margin reddish purple, apex shortly acuminate. Flowers violet, 5.5–6 cm in diam.; pedicel short. Perianth tube
52a. Iris potaninii


52b. Iris potaninii var. ionantha


Sunny stony hillsides, beside ditches. Xinjiang [Kazakhstan, Russia].

51. Iris leptophylla


53. Iris psammocola


Flowers dark violet or purplish blue; outer perianth segments with darker and sometimes also white lines radiating from beard.

Gansu, Qinghai, Sichuan, Xizang [Mongolia, Russia].

52. Iris potaninii


52b. Iris potaninii var. ionantha


52b. Iris potaninii var. ionantha

Flowers dark violet or purplish blue; outer perianth segments with darker and sometimes also white lines radiating from beard.

Gansu, Qinghai, Sichuan, Xizang [Mongolia, Russia].


Sunny stony hillsides, beside ditches. Xinjiang [Kazakhstan, Russia].

52. Iris potaninii


52b. Iris potaninii var. ionantha


Flowers dark violet or purplish blue; outer perianth segments with darker and sometimes also white lines radiating from beard.

Gansu, Qinghai, Sichuan, Xizang [Mongolia, Russia].

大粗根鸢尾  da cu gen yuan wei

Leaves 10–20 cm × 3–6 mm. Flowering stems 10–20 cm. Flowers 4.5–5 cm in diam.

- Forest margins, grasslands on sunny hillsides. C Jiin, E Nei Mongol, Shanxi.

*Iris ivenovae* Doronkin (Fl. Sibir., Araceae-Orchidaceae, 117. 1987) was recorded in its protologue not only from Mongolia and Russia (Siberia) but also from China. No specimens have been seen by the present authors, but it is said to differ from *I. tigridea* in having narrower leaves (to 2 mm wide), narrowly lanceolate spathes, smaller flowers (to 3.5 cm in diam.), and outer perianth segments abruptly narrowed inward to a filiform claw.

55. *Iris goniocarpa* Baker, Gard. Chron., n.s., 6: 710. 1876.

锐果鸢尾  rui guo yuan wei

*Iris gracilis* Maximowicz; *I. goniocarpa* var. *tenella* Y. T. Zhao.

Rhizomes erect, very short. Roots slender. Leaves yellowish green, linear, 10–25 cm × 2–3 mm, midvein obscure, apex acute. Flowering stems 10–25 cm, leafless or 1- or 2-leaved; spathes 2, green, lanceolate, 2–4 cm × 5–8 mm, 1-flowered, apex recurved, acuminate. Flowers violet, 2.5–3 cm in diam.; pedicel short or absent. Perianth tube 1.5–2 cm; outer segments with deep purple mottling, obovate to elliptic, beard of white-based, yellow-tipped hairs, apex retuse or truncate. Stamens 1.7–2.2 cm; anthers yellow. Ovary 1–1.5 cm. Style branches ca. 1.8 cm. Capsule ellipsoid, 3.2–4 × 1.8 cm, abruptly narrowed into a 0.7–1 cm long claw, claw and base of limb with dense beard of white-based, yellow-tipped hairs, apex of limb truncate; inner segments erect, oblanceolate, ca. 4 × 1 cm. Stamens 2–2.3 cm. Ovary ca. 6 cm. Style branches ca. 3.2 cm × 6 mm. Capsule globose, 2.5–2.5 × 1.5–1.8 cm, shortly beaked. Seeds reddish brown, with milky yellow aril. 2n = 22, 24.

Alpine pastures; 3500–4200 m. Xizang [Bhutan, NE India, Nepal].

There has been confusion between this species and *Iris dolichosiphon*. According to one of us (Noltie), *I. kemaonensis* is characterized by its shorter perianth tube, erect inner perianth segments, and the usually paler background color of its flowers, which are strongly mottled; it is more western in distribution, and in China is probably restricted to Xizang.


长管鸢尾  chang guan yuan wei

Rhizomes short. Leaves yellowish green, linear, 6–10 cm × 2–6 mm at anthesis, to 34 cm × 3–7 mm in fruit, midvein absent, apex acute. Flowering stems not emerging above ground; spathes 2 or 3, green, broadly lanceolate, 5–6 cm × 1–1.8 mm, 1-flowered, apex acuminate. Flowers pale purple to mauve-purple, blotched darker, 5.5–6 cm; outer segments spatulate, 4–5 × ca. 1.5 cm, claw and base of limb with dense beard of white-based, yellow-tipped hairs, apex of limb truncate; inner segments erect, oblanceolate, ca. 4 × 1 cm. Stamens 2–2.3 cm. Ovary ca. 6 cm. Style branches ca. 3.2 cm × 6 mm. Capsule globose, 2.5–2.5 × 1.5–1.8 cm, shortly beaked. Seeds reddish brown, with milky yellow aril. 2n = 22.

Alpine pastures; 3000–4000 m. Gansu, Heilongjiang, Jilin, qinghai, Shaanxi, Sichuan [Kazakstan, Mongolia, Russia].


库门鸢尾  ku men yuan wei

Rhizomes short. Roots slender. Leaves yellowish green, linear, 6–10 cm × 2–6 mm at anthesis, to 34 cm × 3–7 mm in fruit, midvein absent, apex acute. Flowering stems not emerging above ground; spathes 2 or 3, green, broadly lanceolate, 5–6 cm × 1–1.8 mm, 1-flowered, apex acuminate. Flowers pale purple to mauve-purple, blotched darker, 5.5–6 cm; outer segments spatulate, 4–5 × ca. 1.5 cm, claw and base of limb with dense beard of white-based, yellow-tipped hairs, apex of limb truncate; inner segments erect, oblanceolate, ca. 4 × 1 cm. Stamens 2–2.3 cm. Ovary ca. 6 cm. Style branches ca. 3.2 cm × 6 mm. Capsule globose, 2.5–2.5 × 1.5–1.8 cm, shortly beaked. Seeds reddish brown, with milky yellow aril. 2n = 22.

Alpine pastures; 3500–4200 m. Xizang [Bhutan, NE India, Nepal].

There has been confusion between this species and *Iris dolichosiphon*. According to one of us (Noltie), *I. kemaonensis* is characterized by its shorter perianth tube, erect inner perianth segments, and the usually paler background color of its flowers, which are strongly mottled; it is more western in distribution, and in China is probably restricted to Xizang.


长管鸢尾  chang guan yuan wei

Rhizomes short. Leaves linear, 3–23 cm × 2–7 mm at anthesis, to 55 × 1.4 cm in fruit, midvein indistinct, apex curved, minutely acuminate. Flowering stems short, base with sheathlike leaves; spathes membranous when dry, 1-flowered. Flowers very dark violet, slightly mottled, 3.8–5 cm in diam. Perianth tube 4–14 cm; outer segments spatulate, 2.3–4.3 × 0.8–1.8 cm, abruptly narrowed into a 0.7–1 cm long claw, claw and base of limb with dense beard of white-based, orange-tipped, clawate hairs, limb elliptic, apex blunt or retuse; inner segments spreading or reflexed, 2.3–3.6 × 0.5–1.5 cm, claw 4–6 mm, limb oblong, apex retuse or truncate. Stamens 1.7–2.2 cm; anthers orange or pale violet, 8–10 mm. Style branches dark violet, paler at margin, 1.5–2.8 × 0.8–1.5 cm. Capsule borne at ground level, narrowly ellipsoid, ca. 5 cm, apex acute; valves remaining united apically. Seeds ca. 3.5 mm, arillate. Fl. May–Jun, fr. Sep. 2n = 22.

Amended to 2n = 38.

Among shrubs, alpine meadows, open grassy hillsides, limestone cliffs; 2700–4300 m. Sichuan, Xizang, Yunnan [Bhutan, NE India, Myanmar].

1a. Flowers 6–8.5 cm in diam.; perianth tube 7–14 cm .................. 58a. subsp. *dolichosiphon*

1b. Flowers 3–6 cm in diam.; perianth tube 4–7 cm .......................... 58b. subsp. *orientalis*

58a. *Iris dolichosiphon* subsp. *dolichosiphon*
Leaves 10–23 cm × 4–7 mm at anthesis, to 55 × 1.4 cm in fruit. Flowers 6–8.5 cm in diam.; perianth tube 7–14 cm.

Among shrubs, open grassy hillsides; 2700–4100 m. Xizang [Bhutan].


Leaves 3–11 cm × 2–4 mm at anthesis, to 40 cm × 4 mm in fruit. Flowers 3–6 cm in diam.; perianth tube 4–7 cm.

Among shrubs, alpine meadows, limestone cliffs; 3000–4300 m. Sichuan, Yunnan [NE India, Myanmar].

One of us (Zhao) has not seen the types of either of these subspecies.