

**24. ANEMONE** Linnaeus, Sp. Pl. 1: 538. 1753.

银莲花属 yin lian hua shu

Wang Wencai (王文采 Wang Wen-tsai); Svetlana N. Ziman, Bryan E. Dutton

*Anemonastrum* Holub; *Anemonidium* (Spach) Holub; *Anemonoides* Miller; *Arsenjevia* Starodubtzev; *Eriocapitella* Nakai.

Herbs perennial, rhizomatous. Leaves all basal, simple, palmate, ternate, or pinnate, sometimes reduced and scalelike, rarely absent. Scape erect or ascending; inflorescences cymose, sometimes umbellate. Bracts (2 or)3 or more, forming an involucre. Flowers actinomorphic. Sepals (4 or)5 or more, petaloid, white, yellow, blue, or purple. Petals absent. Stamens usually numerous, filiform or linear. Pistils several to numerous; ovary with 1 pendent ovule; style present or absent; stigma present or absent. Achenes ovoid or subglobose, rarely strongly bilaterally compressed.

About 150 species: widespread on all continents except Antarctica, mainly in N temperate regions; 53 species (22 endemic) in China.

*Anemone nutantiflora* W. T. Wang & L. Q. Li (Acta Bot. Yunnan. 8: 265. 1986) was described from W Yunnan (Lushui Xian: Pianma), where it grows in bamboo thickets at ca. 3200 m. The flowers are unknown, but the fruiting pedicels are pendent. The exact placement of this taxon is problematic because of the lack of floral data. There is no reason to include it into *A. narcissiflora* because that species always has glabrous achenes (sometimes with solitary hairs), whereas *A. nutantiflora* is reported to have villous achenes. Further collections are needed.

The identities of the taxa to which the following names apply could not be ascertained. All were described from China, but none of the types has been seen by the present authors: *Anemone robustostylosa* R. H. Miao (Acta Sci. Nat. Univ. Sunyatseni 32(4): 56. 1993), described from Guangxi, and *A. wilsonii* Ulbrich (Bot. Jahrb. Syst. 36(Beibl. 80): 2. 1905, not Hemsley, 1906), described from W Hubei as a hybrid between *A. altaica* and *A. baicalensis*.

- 1a. Scape dichotomously branched; involucral bracts paired; pistils and achenes glabrous ..... 1. *A. dichotoma*
- 1b. Scape usually unbranched; involucral bracts 3 or more; pistils and achenes glabrous or pubescent.
  - 2a. Pistils and achenes covered with very short hairs (usually 0.1–0.2 mm).
    - 3a. Rhizome long or short; leaf blade ternate or 3-sect, petiole narrow or basally sheathing; involucral bracts sessile; pistils and achenes with distinct or obscure style and small or capitate stigma.
      - 4a. Scalelike leaves present; leaves developing after anthesis, petiole narrow, leaf blade distinct.
        - 5a. Leaves 2–4; scapes 1–3, cyme few flowered; sepals 5–10 mm, with 7–9 vein anastomoses .. 2. *A. flaccida*
        - 5b. Leaf solitary; scape solitary, cyme 1-flowered; sepals 7–15 mm, without vein anastomoses .. 3. *A. delavayi*
      - 4b. Scalelike leaves absent; leaves developing before anthesis, petiole basally sheathing, leaf blade distinct.
        - 6a. Leaf blade 3-lobed ..... 4. *A. erythrophylla*
        - 6b. Leaf blade 3-sect.
          - 7a. Rhizome 8–10 mm in diam., with long, underground stolons; sepals 10–15 mm, with few vein anastomoses ..... 5. *A. baicalensis*
          - 7b. Rhizome 5–7 mm in diam., with long, above-ground stolons; sepals 8–10 mm, without vein anastomoses ..... 6. *A. prattii*
    - 3b. Rhizome long and thin or shortly nodulose; leaf blade ternate, petiole narrow; involucral bracts petiolate; pistils and achenes with distinct style and small, usually linear stigma.
    - 8a. Leaves several, developing before anthesis, petiole gradually dilated at base.
      - 9a. Scapes 2 or 3, few flowered; involucral bract petiole 1–3 cm; bracteoles present, small; sepals puberulent.
        - 10a. Sepals 5–10 mm, without vein anastomoses; staminodes present between sepals and stamens; stigma linear ..... 7. *A. stolonifera*
        - 10b. Sepals 15–20 mm, with 5–15 vein anastomoses; staminodes present between stamens and carpels; stigma subcapitate ..... 8. *A. davidii*
      - 9b. Scape solitary, 1-flowered; involucral bract petiole 0.5–1.5 cm; bracteoles absent; sepals subglabrous.
        - 11a. Involucral bract petiole 3–5 mm wide, basally sheathing and connate; ovary and achenes sparsely puberulent ..... 9. *A. exigua*

- 11b. Involucral bract petiole 1–2 mm wide, free; ovary and achenes glabrous.
- 12a. Involucral bract blade 3-sect; style nearly absent; stigma subglobose ..... 10. *A. griffithii*
- 12b. Involucral bract blade 3-parted to 3-lobed; style distinct; stigma linear ..... 11. *A. scabriuscula*
- 8b. Leaf solitary, developing after anthesis, petiole narrow.
- 13a. Rhizome monomorphic, branched, usually prostrate, long, 1–3 mm in diam.; sepals 5–8(–10).
- 14a. Involucral bract petiole 3–5 mm wide; leaf blade central leaflet 3-sect or 3-parted; sepals 5–8, glabrous, without vein anastomoses ..... 12. *A. amurensis*
- 14b. Involucral bract petiole 1–2 mm wide; leaf blade central leaflet 3-lobed; sepals ca. 5, pilose or subglabrous, with or without vein anastomoses.
- 15a. Basal and involucral bract blade with petiolules 2–5 mm; sepals 10–18 mm, pilose, with 5–9 vein anastomoses ..... 13. *A. udensis*
- 15b. Basal and involucral bract blade with petiolules 1–2 mm; sepals 7–14 mm, subglabrous, without vein anastomoses ..... 14. *A. umbrosa*
- 13b. Rhizome dimorphic: short and thick (nodulose), and long and thin; sepals 5–12.
- 16a. Sepals 5–7, bent, 5–7 mm, puberulent; cyme few flowered; involucral bract petiole 1–2 mm wide ..... 15. *A. reflexa*
- 16b. Sepals 8–12, spreading, 12–25 mm, glabrous; cyme 1-flowered; involucral bract petiole 1–5 mm wide.
- 17a. Basal and involucral bractlets 3-lobed or toothed; involucral bract petiole 5–12 × 1–2 mm, basally slightly dilated; sepals 12–20 mm, with 1–3 vein anastomoses ..... 16. *A. raddeana*
- 17b. Basal and involucral bractlets deeply 3-lobed; involucral bract petiole 10–20 × 3–5 mm, base distinctly dilated; sepals 20–25 mm, with 3–5 vein anastomoses ..... 17. *A. altaica*
- 2b. Pistils and achenes glabrous or covered with longer hairs.
- 18a. Pistils and achenes glabrous; involucral bracts petiolate.
- 19a. Sepals 5–10, 6–14 × 3–8 mm ..... 18. *A. rivularis*
- 19b. Sepals 4, 5–7 × 3–4 mm ..... 19. *A. filisepta*
- 18b. Pistils and achenes pubescent or glabrous; involucral bracts sessile or petiolate.
- 20a. Involucral bracts petiolate; pistils and achenes lanate.
- 21a. Leaf blade ternate.
- 22a. Leaf blade abaxially strigose ..... 20. *A. hupehensis*
- 22b. Leaf blade abaxially tomentose ..... 21. *A. tomentosa*
- 21b. Leaf blade 3-lobed or 3-sect.
- 23a. Leaf blade 3–5-lobed, 10–20 × 10–20 cm, abaxially velutinous; involucral bract blade 3–5-lobed ..... 22. *A. vitifolia*
- 23b. Leaf blade 3-sect, 2–5 × 3–8 cm, abaxially puberulent; involucral bract blade 3-sect ... 23. *A. sylvestris*
- 20b. Involucral bracts sessile; pistils and achenes pubescent.
- 24a. Filaments filiform; scape terminal; rhizome branched, ascending or prostrate, short or long.
- 25a. Pistils and achenes lanate.
- 26a. Rhizome simple, tuberous; involucral bracts palmately parted ..... 24. *A. gortschakowii*
- 26b. Rhizome branched, not tuberous, short; involucral bracts 3-parted or 3-lobed.
- 27a. Leaf petiole narrow, leaf blade abaxially subglabrous ..... 25. *A. rupicola*
- 27b. Leaf petiole basally sheathing, leaf blade abaxially puberulent or villous.
- 28a. Leaf blade 3-sect; involucral bract blade 3-parted ..... 26. *A. laceratoincisa*
- 28b. Leaf blade 3-parted; involucral bract blade 3-lobed ..... 27. *A. tibetica*
- 25b. Pistils and achenes pubescent or glabrous.
- 29a. Pistils and achenes densely puberulent, not ribbed; style shortly subulate-terete; rhizome prostrate, long ..... 28. *A. brevistyla*
- 29b. Pistils and achenes glabrous, 1-ribbed; style not subulate; rhizome oblique or ascending, short.
- 30a. Leaf blade 3–5-lobed; involucral bract blade 3-lobed or entire.
- 31a. Leaf blade 3–8 × 2–8 cm; scape 15–40 cm; sepals white, 5–10 × 2–6 mm, with 3–5 vein anastomoses ..... 29. *A. begoniifolia*

- 31b. Leaf blade 10–15 × 10–15 cm; scape 40–60 cm; sepals purple, 15–20 × 8–14 mm, with more than 10 vein anastomoses ..... 30. *A. hokouensis*
- 30b. Leaf blade 3-parted or 3-cleft; involucral bract blade entire.
- 32a. Leaf petiole 1–2 mm wide; sepals pinkish, ca. 10 × 7 mm ..... 31. *A. orthocarpa*
- 32b. Leaf petiole basally sheathing; sepals white, 4–5 × 2–3 mm ..... 32. *A. howellii*
- 24b. Filaments linear or dilated; scape axillary; rhizome simple, erect, short.
- 33a. Achene body obovoid, compressed, winged, glabrous; leaf blade basally cordate or rarely subtruncate; involucral bract blade similar to that of leaves; sepal vein anastomoses usually 3–5 or rarely absent.
- 34a. Inflorescence compoundly branched; leaf blade 3-parted or 3-lobed.
- 35a. Leaf blade 3-lobed, leathery; sepals 4, 12–20 × 6–12 mm, glabrous, with vein anastomoses; achene body 8–12 mm ..... 33. *A. tetrasepala*
- 35b. Leaf blade 3-parted, herbaceous; sepals 5, varying in size, puberulent or glabrous, without vein anastomoses; achene body smaller.
- 36a. Sepals 12–20 × 6–12 mm, base cuneate, apex rounded; achene body 6–9 mm, wing 1.2–1.3 mm wide, style 1–1.5 mm ..... 34. *A. elongata*
- 36b. Sepals 7–10 × 4–6 mm, base rounded, apex acute; achene body 5–6 mm, wing 0.5–0.6 mm wide, style 0.6–1 mm ..... 35. *A. shikokiana*
- 34b. Inflorescence usually simply umbellate or flower solitary; leaf blade usually 3-sect.
- 37a. Sepals 15–25 mm, glabrous; stem 70–120 cm; leaf blade orbicular-ovate ..... 36. *A. robusta*
- 37b. Sepals smaller, ± pubescent; stem less than 70 cm; leaf blade varying in shape.
- 38a. Leaf blade orbicular, with subsessile segments; involucral bracts larger than leaves 37. *A. cathayensis*
- 38b. Leaf blade differently shaped; involucral bracts smaller than leaves.
- 39a. Sepals 5–10, blue or white.
- 40a. Stem usually solitary, erect; leaf blade usually orbicular-reniform, wider than long, with central segment similar to lateral ones; sepals white or yellowish, pubescent or glabrous ..... 38. *A. narcissiflora*
- 40b. Stems 3–5, ascending; leaf blade usually ovate, longer than wide, with central segment distinctly larger than lateral ones; sepals usually blue or pink, densely pubescent 39. *A. demissa*
- 39b. Sepals 5, white or red (rarely pink).
- 41a. Sepals white, 7–10 × 5–6 mm; leaf blade ovate, longer than wide ..... 40. *A. taipaiensis*
- 41b. Sepals red (rarely pink), 15–25 × 10–15 mm; leaf blade orbicular-rhombic, wider than long ..... 41. *A. smithiana*
- 33b. Achene body ovoid, sometimes slightly compressed, densely pubescent (rarely subglabrous); leaf blade basally attenuate or cordate; involucral bract blade distinctly smaller than that of leaves; sepal vein anastomoses usually absent.
- 42a. Pistils and achenes ellipsoid, compressed, with distinct, lateral ribs, usually glabrous.
- 43a. Leaf blade pinnatifid, longer than wide; pistil and achene style bent basally ..... 42. *A. imbricata*
- 43b. Leaf blade twice 3-sect, wider than long; pistil and achene style straight or curved apically.
- 44a. Leaves subglabrous; sepals 5–10 × 3–6 mm, glabrous or sparsely puberulent; filaments lanceolate; pistil and achene style straight or slightly curved ..... 43. *A. rupestris*
- 44b. Leaves sparsely puberulent or subglabrous; sepals 9–14 × 5–9 mm, usually puberulent; filaments linear; pistil and achene style apically thickened and uncinate ..... 44. *A. polycarpa*
- 42b. Pistils and achenes ovoid, not compressed (rarely sometimes slightly compressed), without lateral ribs, ± densely pubescent.
- 45a. Leaf blade usually longer than wide, base attenuate or cuneate.
- 46a. Leaf blade basally attenuate; cyme 1–3-flowered; sepal vein anastomoses sometimes present.
- 47a. Leaf blade 3-parted, 3-cleft, or 3-lobed, broadly lanceolate or ovate; involucral bract blade 3-lobed or 3-dentate; cyme 1–3-flowered; filaments ovate-lanceolate ..... 45. *A. trullifolia*

- 47b. Leaf blade usually undivided, oblong-linear to oblanceolate; involucral bract blade undivided; cyme 1-flowered; filaments linear ..... 46. *A. coelestina*
- 46b. Leaf blade basally truncate; cyme 1-flowered; sepal vein anastomoses absent.
- 48a. Leaf blade 3-parted or 3-lobed; involucral bract blade 3-lobed; sepals  $8-16 \times 8-10$  mm ..... 47. *A. yulongshanica*
- 48b. Leaf blade undivided or obscurely 3-lobed; involucral bract blade entire or 3-dentate; sepals  $5-10 \times 5-8$  mm ..... 48. *A. subindivisa*
- 45b. Leaf blade usually wider than long, base cordate or rounded.
- 49a. Leaf petiole 1–2 mm wide; involucral bract blade 3-lobed to 3-parted; cyme usually few flowered; sepals pilose; staminodes absent ..... 49. *A. obtusiloba*
- 49b. Leaf petiole more than 2 mm wide; involucral bract blade undivided or sometimes 3-lobed; cyme 1-flowered; sepals glabrous or sparsely puberulent; staminodes sometimes present.
- 50a. Leaf blade central segment 3-sect or 3-parted, with distinct segments (leaf blade appearing pinnatifid), petiole 2–5 cm ..... 50. *A. subpinnata*
- 50b. Leaf blade central segment 3-lobed or undivided, petiole 5–20 cm.
- 51a. Leaf blade orbicular-ovate, all segments subsessile; filaments ovate ..... 51. *A. patula*
- 51b. Leaf blade ovate, central segment distinctly petiolulate; filaments linear-lanceolate.
- 52a. Leaf blade central segment petiolule 1–2 mm; sepals  $10-20 \times 6-12$  mm; filaments linear, 0.3–0.5 mm wide ..... 52. *A. rockii*
- 52b. Leaf blade central segment petiolule 5–10 mm; sepals  $5-12 \times 4-9$  mm; filaments lanceolate, 0.5–1.0 mm wide ..... 53. *A. geum*

**1. *Anemone dichotoma* Linnaeus, Sp. Pl. 1: 540. 1753.**

二歧银莲花 er qi yin lian hua

*Anemonidium dichotomum* (Linnaeus) Holub.

Rhizome shortly erect, 3–4 mm in diam., with long, prostrate, stolonlike runners 1–2 mm in diam. Leaves 2–4(or 5), all scalelike, 3–10(–20)  $\times$  8–10 mm. Scape 35–60 cm, sparsely appressed puberulent; cyme compound, 2 or 3  $\times$  dichotomously branched, many flowered; primary branches 9–14 cm, secondary ones 1–10 cm. Bracts in several pairs, sessile; bract blade 3-parted, flabellate, 3–6  $\times$  4.5–10 cm, abaxially puberulent, adaxially subglabrous; segments narrowly cuneate or linear-oblanceolate, 0.7–2.3 cm wide, distally indistinctly 3-lobed or undivided and few toothed. Bracteoles opposite, similar to bracts but shorter. Pedicel 3–10 cm, puberulent. Sepals 4(or 5), white or tinged with pink, obovate or elliptic, 7–15  $\times$  7–8 mm, puberulent, veins 3–7, vein anastomoses more than 10. Stamens to 4 mm; filament filiform; anther cylindric, ca. 1.2 mm, apex rounded. Pistils ca. 30, ca. 2.2 mm, glabrous; ovary cylindric; style short, recurved. Achene body ovoid or ellipsoid, compressed, 4–7  $\times$  3–5 mm, marginate, glabrous; style slightly curved, 1–2 mm. Fl. Jun.

Forests, wet grassy places. Heilongjiang, Jilin [Mongolia, Russia; Europe].

**2. *Anemone flaccida* F. Schmidt, Mém. Acad. Imp. Sci. Saint Pétersbourg, Sér. 7, 2: 103. 1868.**

鹅掌草 e zhang cao

Rhizome branched, oblique, short, 5–10(–15) mm in diam., sometimes also prostrate, stolonlike, long, 1–1.5 mm in diam. Scalelike leaves 3 or 4, 5–8  $\times$  5–8 mm, several with distinct leaf blade developing after anthesis.

Leaves solitary on rhizome (petiole basally sheathing) and 2 or 3 at base of reproductive shoots (petiole basally slightly dilated); petiole 10–25 (–30) cm, hirsute or sparsely puberulent to glabrous; leaf blade 3-sect, reniform-pentagonal, 3.5–8  $\times$  6–10(–14) cm, adaxially sparsely puberulent, base cordate, margin denticulate, apex obtuse or acute; segments with petiolule 1–2 mm or absent; central segment 3-lobed, rhombic, ultimate lobules triangular or broadly lanceolate; lateral segments 2-parted, obliquely flabellate. Scapes 1–3, 15–25(–40) cm, hirsute or sparsely puberulent to glabrous; cyme 2- or 3(–5)-flowered. Involucral bracts 3(–5), subsessile; bract blade unequally 3-lobed to deeply so, 3–6  $\times$  5–8 cm, sparsely puberulent; lobes usually rhombic, base cuneate, margin shallowly incised, apex obtuse. Bracteoles 1 or 2, 6–15  $\times$  3–7 mm, lanceolate, entire or 3-lobed. Pedicel 4–7 cm, sparsely puberulent. Sepals (4 or)5(–8), persistent, white, yellowish, pink, or reddish purple, obovate to elliptic, 5–10(–20)  $\times$  3–5(–10) mm, glabrescent or sparsely appressed puberulent, basal veins 5–9, vein anastomoses 7–9, base and apex rounded. Stamens 3–5 mm; filament filiform; anther ellipsoid or cylindric, apex mucronate or apiculate, connective narrow. Ovary ovoid, ca. 2 mm, densely puberulent, base narrowed or rounded; style obscure; stigma turbinate, broadly ovoid, or globose. Achene body ovoid, 3–4  $\times$  1.5–2.5 mm, puberulent (hairs ca. 0.1 mm) or glabrate; style very short and thick. Fl. Apr–Aug.

Forests and streamides in valleys, shady grassy places; 400–3000 m. S Anhui, Guizhou, W Hubei, Hunan, S Jiangsu, Jiangxi, Sichuan, NW Yunnan, NW Zhejiang [Japan, Russia (Far East, Sakhalin)].

- 1a. Rhizome both long and short; sepals white to pink; ovary base narrowed; stigma globose.
- 2a. Leaf petiole and scape glabrous to subglabrous; cyme 2- or 3-flowered; involucral bract blade usually 4–6 cm; sepals 7–10 mm ..... 2a. var. *flaccida*
- 2b. Leaf petiole and scape hirsute; cyme 4- or 5-flowered; involucral bract blade ca. 3 cm; sepals 5–6 mm 2b. var. *hirtella*
- 1b. Rhizome short only; sepals white to reddish purple; ovary base rounded; stigma turbinate or broadly ovoid.
- 3a. Sepals 5, white, 10–15 mm; anthers mucronate at apex; stigma usually turbinate ..... 2c. var. *hofengensis*
- 3b. Sepals 4–8, reddish purple, 6–10 mm; anthers apiculate at apex; stigma broadly ovoid ..... 2d. var. *anhuiensis*

**2a. *Anemone flaccida* var. *flaccida***

鹅掌草(原变种) e zhang cao (yuan bian zhong)

*Anemone baicalensis* Turczaninow subsp. *flaccida* (F. Schmidt) Ulbrich; *A. baicalensis* var. *laevigata* A. Gray; *A. laevigata* (A. Gray) Koidzumi; *Anemonoides flaccida* (F. Schmidt) Holub; *Arsenjevia flaccida* (F. Schmidt) Starodubtzev.

Rhizome both long and short. Leaf petiole and scape glabrous to subglabrous. Involucral bract blade usually 4–6 cm. Cyme 2- or 3-flowered. Sepals white to pink, 7–10 mm. Ovary base narrowed. Stigma globose.

Forests in valleys, shady grassy places; 1100–3000 m. S Anhui, Guizhou, W Hubei, Hunan, S Jiangsu, Jiangxi, Sichuan, NW Yunnan, NW Zhejiang [Japan, Russia (Far East, Sakhalin)].

**2b. *Anemone flaccida* var. *hirtella*** W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 349. 1980.

展毛鹅掌草 zhan mao e zhang cao

Rhizome both long and short. Leaf petiole and scape hirsute. Involucral bract blade ca. 3 cm. Cyme 4- or 5-flowered. Sepals white to pink, 5–6 mm. Ovary base narrowed. Stigma globose.

• Streamsides in valleys; ca. 1000 m. SW Hubei (Lichuan Xian).

**2c. *Anemone flaccida* var. *hofengensis*** (W. T. Wang) Ziman & B. E. Dutton, comb. et stat. nov.

鹤峰银莲花 he feng yinlian hua

Basionym: *Anemone hofengensis* W. T. Wang, Acta Phytotax. Sin. 29: 463. 1991.

Rhizome short only. Sepals 5, white to reddish purple, 10–15 mm. Anther apex mucronate. Ovary base rounded. Stigma turbinate or broadly ovoid. Fl. May–Aug.

• Streamsides in mountain valleys; 1200–1800 m. SW Hubei (Enshi Xian, Hefeng Tujia Zu Zizhixian), NW Hunan (Sangzhi Xian), NE Sichuan (Fengjie Xian).

**2d. *Anemone flaccida* var. *anhuiensis*** (Y. K. Yang et al.) Ziman & B. E. Dutton, comb. et stat. nov.

安徽银莲花 an hui yinlian hua

Basionym: *Anemone anhuiensis* Y. K. Yang et al., J.

Wuhan Bot. Res. 7: 327. 1989.

Rhizome short only. Sepals 4–8, white to reddish purple, 6–10 mm. Anther apex apiculate. Ovary base rounded. Stigma turbinate or broadly ovoid. Fl. Apr.

• *Pinus* forests in mountain valleys; ca. 1000 m. S Anhui (Qingyang Xian: Jiuhua Shan).

**3. *Anemone delavayi*** Franchet, Bull. Soc. Bot. France 33: 366. 1886.

滇川银莲花 dian chuan yinlian hua

Rhizome branched, short, stout, 4–7 mm in diam., also prostrate, stolonlike, long, ca. 1 mm in diam. Scalelike leaves 2 or 3, 3–4 mm. Leaf solitary, with distinct blade developing after anthesis; petiole 3–10 cm, puberulent distally; leaf blade 3-sect, cordate-pentagonal, 2–4 × 2–5 cm, sparsely puberulent, base cordate, margin dentate, apex acute or acuminate; petiolules 1–2 mm; central segment rhombic-ovate or rhombic; lateral segments smaller, unequally 2-lobed. Scape 5–10(–20) cm, puberulent distally; cyme 1(or 2)-flowered. Involucral bracts 3, subsessile; bract blade 3-parted or 3-lobed, rhombic-ovate or elliptic, 1–3 × 2–5 cm, sparsely puberulent, base cuneate, margin denticulate or entire, apex obtuse. Pedicel 2–6 cm, puberulent. Sepals 5, white and reddish tinged or blue, elliptic or obovate, 5–15 × 3–7 mm, sparsely puberulent, basal veins 3–5, vein anastomoses absent, rarely solitary, base narrowed, apex rounded to acuminate. Stamens 4–7 mm; filament filiform; anther narrowly ellipsoid, apex rounded, connective narrow. Ovary ovoid, 1.5–2 mm, densely puberulent; style very short; stigma subsessile or sessile, globose or turbinate. Achene body ovoid, 3–4 × ca. 2 mm, densely puberulent, hairs ca. 0.1 mm; style 0.5 mm; stigma thickened. Fl. May–Jul.

• Forests, moist places near forest margins; 2400–3000 m. SW Sichuan, NW Yunnan.

1a. Sepals 7–15 × 5–7 mm; stigma subsessile, globose ..... 3a. var. *delavayi*

1b. Sepals 5–6 × ca. 3 mm; stigma sessile, turbinate ..... 3b. var. *oligocarpa*

**3a. *Anemone delavayi* var. *delavayi***

滇川银莲花(原变种) dian chuan yinlian hua (yuan bian zhong)

*Anemonoides delavayi* (Franchet) Holub.

Sepals 7–15 × 5–7 mm. Stigma subsessile, globose.

• Forests, moist places near forest margins; 2400–3000 m. NW Yunnan.

**3b. *Anemone delavayi* var. *oligocarpa*** (C. Pei) Ziman & B. E. Dutton, comb. et stat. nov.

少果银莲花 shao guo yinlian hua

Basionym: *Anemone oligocarpa* C. Pei, Contr. Biol.

Lab. Chin. Assoc. Advancem. Sci., Sect. Bot. 9: 3. 1933.

Sepals 5–6 × ca. 3 mm. Stigma sessile, turbinate.

• Forest margins; 2800–3000 m. SW Sichuan (Jiulong Xian, Muli Zang Zu Zizhixian).

**4. *Anemone erythrophylla*** Finet & Gagnepain, Bull. Soc. Bot. France 53: 125. 1906.

红叶银莲花 hong ye yin lian hua

Rhizomes thin, with scales, producing slender stolons. Basal leaves 2; petiole 1.8–11 cm, spreading yellowish villous; leaf blade abaxially red-purple, 3-lobed, pentagonal or orbicular-reniform, 1.6–3 × 2.2–5.3 cm, sparsely yellowish puberulent, base cordate; central lobe broadly rhombic-obovate, distal margin rounded dentate; lateral lobes obliquely flabellate, larger than central one. Scape 7–15 cm, villous; cyme 1-flowered. Involucral bracts 3, 3-lobed or undivided, rhombic or broadly so, subequal, 4–11 mm. Flowers ca. 2 cm in diam.; pedicel 3–5 cm, puberulent. Sepals 6–8, white, obovate, 7–9 × 4–5 mm, abaxially puberulent, apex rounded or obtuse. Stamens 2–4.5 mm; anthers broadly oblong, ca. 1 mm, apex rounded. Pistils ca. 10; ovary ovoid, puberulent. Stigma subsessile, subglobose. Fl. May.

• Shady places in valleys; 1800–2200 m. W Sichuan (Tianquan Xian).

Two of us (Ziman and Dutton) believe that this species would be better treated as a synonym of *A. baicalensis* var. *baicalensis*.

**5. *Anemone baicalensis*** Turczaninow, Bull. Soc. Imp. Naturalistes Moscou 15: 40. 1842.

毛果银莲花 mao guo yin lian hua

Rhizome branched, ascending, short, 4–6 mm in diam., but sometimes prostrate, stolonlike, long, ca. 1 mm in diam. Scalelike leaves absent. Leaves 2 or 3, with distinct blade developing before anthesis; petiole 10–15(–20) cm, pubescent, sparsely puberulent, or glabrous, base sheathing, remnants sometimes resembling scalelike leaves; leaf blade 3-sect, reniform-pentagonal, 3–5 × 4–7(–10) cm, puberulent, base cordate, margin lobulate-dentate, apex obtuse; segments subsessile; central segment 3-lobed or toothed distally, broadly rhombic; lateral segments 2-parted, obliquely flabellate. Scape solitary, (5–)10–25(–30) cm, pubescent, sparsely puberulent, or glabrous; cyme 1(or 2)-flowered. Involucral bracts 3, sessile; bract blade unequally 2- or 3-parted or 3-lobed distally, rhombic or lanceolate, 1–3 × 2–4 cm. Pedicel 3–8(–10) cm, pubescent. Sepals 5(–7), white, obovate, 7–20 × 6–7 mm, sparsely pubescent or subglabrous, basal veins 3–5, vein anastomoses 3–5, base and apex rounded. Stamens 4–7 mm; filament filiform; anther ellipsoid or cylindric, connective narrow. Ovary ovoid, puberulent or subglabrous, base rounded; style obscure; stigma turbinate, ellipsoid-turbinate, or globose. Achene body cylindric-ovoid, 4–5 × 2–2.5 mm, puberulent (hairs ca. 0.1 mm), base narrowed; style hooked, ca. 0.5 mm, base puberulent. Fl. May–Jun.

Forests, scrub, grassy places and slopes; 500–3100 m. S Gansu, E Heilongjiang, Jilin, Liaoning, S Shanxi, C and NW Sichuan, Yunnan [N Korea, Mongolia, Russia (Siberia)].

1a. Leaf petiole and scape glabrous ..... 5d. var. *rossii*

1b. Leaf petiole and scape pubescent.

2a. Leaf petiole and scape spreading

pubescent ..... 5a. var. *baicalensis*

2b. Leaf petiole and scape sparsely appressed puberulent.

3a. Sepals 7–8 mm; stigma ellipsoid-turbinate ..... 5b. var. *kansuensis*

3b. Sepals 10–20 mm; stigma

globose ..... 5c. var. *saniculiformis*

**5a. *Anemone baicalensis* var. *baicalensis***

毛果银莲花(原变种) mao guo yin lian hua (yuan bian zhong)

*Anemone baicalensis* subsp. *glabrata* (Maximowicz) Kitagawa; *A. baicalensis* var. *glabrata* Maximowicz; *A. glabrata* (Maximowicz) Juzepczuk; *A. ulbrichiana* Diels ex Ulrich; *A. wilsonii* Hemsley (1906), not Ulrich (1905); *Anemonoides baicalensis* (Turczaninow) Holub; *A. glabrata* (Maximowicz) Holub; *A. ulbrichiana* (Diels ex Ulrich) Holub; *Arsenjevia baicalensis* (Turczaninow) Starodubtzev; *A. glabrata* (Maximowicz) Starodubtzev.

Leaf petiole and scape spreading pubescent.

Forests, scrub, grassy slopes; 500–3100 m. S Gansu, E Heilongjiang, Jilin, Liaoning, S Shanxi, NW Sichuan, Yunnan [N Korea, Mongolia, Russia (Siberia)].

**5b. *Anemone baicalensis* var. *kansuensis*** (W. T. Wang) W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 20. 1980.

甘肃银莲花 gan su yin lian hua

*Anemone kansuensis* W. T. Wang, Acta Phytotax. Sin. 12: 163. 1974.

Leaf petiole and scape appressed puberulent. Sepals 7–8 mm. Stigma ellipsoid-turbinate. Fl. Jun.

• Grassy places and slopes; ca. 2500 m. S Gansu (Wudu Xian).

**5c. *Anemone baicalensis* var. *saniculiformis*** (C. Y. Wu ex W. T. Wang) Ziman & B. E. Dutton, comb. et stat. nov.

芹叶银莲花 qin ye yin lian hua

Basionym: *Anemone saniculiformis* C. Y. Wu ex W. T. Wang, Acta Phytotax. Sin. 12: 164. 1974.

Leaf petiole and scape sparsely appressed puberulent. Sepals 10–20 mm. Stigma globose. Fl. May–Jun.

• Forests; 2300–2900 m. C Sichuan (Baoxing Xian).

**5d. *Anemone baicalensis* var. *rossii*** (S. Moore) Kitagawa, Lin. Fl. Manshur. 213. 1939.

细茎银莲花 xi jing yin lian hua

*Anemone rossii* S. Moore, J. Linn. Soc., Bot. 17: 376. 1879; *Anemonoides rossii* (S. Moore) Holub; *Arsenjevia rossii* (S. Moore) Starodubtzev.

Leaf petiole and scape glabrous. Stigma turbinate. Fl. May–Jun.

Forests in mountainous regions. E Jilin, SE Liaoning (Fengcheng Xian) [N Korea].

**6. *Anemone prattii*** Huth ex Ulbrich, Bot. Jahrb. Syst. 36(Beibl. 80): 4. 1905.

川西银莲花 chuan xi yin lian hua

*Anemonoides prattii* (Huth ex Ulbrich) Holub;  
*Arsenjevia prattii* (Huth ex Ulbrich) Starodubtzev.

Rhizome oblique, short, 5–7 mm in diam., with above-ground, long, slender stolons, ca. 1 mm in diam. Leaves 2 or 3; petiole 5–15 cm, glabrous; leaf blade 3-sect, cordate-pentagonal, 3–3.5 × 5–5.5 cm, abaxially subglabrous, adaxially sparsely puberulent, base cordate; segments subsessile; central segment 3-lobed, rhombic, base cuneate, secondary lobes subpinnately divided, ultimate lobules broadly lanceolate, narrowly ovate, or ovate; lateral segments 2-parted, obliquely flabellate. Scape 10–30 cm, sparsely puberulent distally; cyme 1(or 2)-flowered. Involucral bracts 3, sessile; bract blade 3-lobed, unequally rhombic, puberulent. Pedicel 3.5–8 cm, puberulent. Sepals 5, white, elliptic-obovate or elliptic, 8–10 × 4–7 mm, sparsely puberulent, veins 3–5, vein anastomoses absent, apex rounded. Stamens 4–5 mm; filament filiform; anther ellipsoid, apex rounded. Ovary densely puberulent; style very short; stigma sessile, subglobose. Achenes not seen. Fl. Apr–May.

- Shady places in forests, valleys; 1700–2400 m. W Sichuan, N Yunnan.

**7. *Anemone stolonifera*** Maximowicz, Bull. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 3, 22: 225. 1876.

匐枝银莲花 fu zhi yin lian hua

*Anemone siuzevii* Komarov; *Anemonoides stolonifera* (Maximowicz) Holub.

Rhizome prostrate, stolonlike, long, 1–2 mm in diam., also ascending, short, 3–5 mm in diam. Leaves 2–5(–8), developing before anthesis; petiole 8–20(–25) cm, puberulent distally, base sheathing, 6–9 mm wide, surrounded by fibrous remnants; leaf blade ternate, reniform-pentagonal, 2–5 × 4–8 cm, sparsely to densely puberulent; petiolules 2–6 mm; central leaflet 3-parted to 3-lobed, rhombic to broadly ovate, 2–6 × 1–4 cm, base cuneate, margin lobulate to dentate, ciliate, apex obtuse or acute, lobes and lobules ovate; lateral leaflets unequally 2-parted. Scapes 1–3, 15–20(–25) cm, scarcely pubescent distally; cyme 1–3-flowered. Involucral bracts more than 3; petiole 0.5–2 cm × 1–2 mm; bract blade 3-sect or 3-parted, rhombic-ovate, similar to that of leaves, 2–5 × 3–6 cm, puberulent; segments sessile, rhombic. Bracteoles 1–2 cm, entire, lanceolate. Pedicel 3–7 (–10) cm, puberulent. Sepals 5(or 6), white or pinkish, elliptic or elliptic-obovate, 5–10 × 3–7 mm, sparsely or densely puberulent, basal veins 3–5, vein anastomoses absent, base narrowed, apex rounded. Stamens 2–5 mm; filament filiform, sometimes apically dilated; anther narrowly ellipsoid. Staminodes present between sepals and stamens, 1.8–3 × ca. 2 mm. Ovary ovoid, 1.5–2 mm, puberulent or

subglabrous; style conic, very short, apically curved; stigma linear. Achene body ovoid, 3–4 × 1.5–2 mm, sparsely puberulent (hairs ca. 0.1 mm) or glabrous; style shortly curved or hooked, ca. 0.5 mm. Fl. Jun. Broad-leaved and coniferous forests, mountainous regions; 1200–2600 m. E Heilongjiang, Taiwan [Japan, Korea].

**8. *Anemone davidii*** Franchet, Nouv. Arch. Mus. Hist. Nat., sér. 2, 8: 185. 1886.

西南银莲花 xi nan yin lian hua

*Anemone petiolulata* C. Pei; *A. stolonifera* Maximowicz var. *davidii* (Franchet) Finet & Gagnepain; *Anemonoides davidii* (Franchet) Starodubtzev.

Rhizome prostrate, stolonlike, long, 1–2 mm in diam., also branched, erect, short, 6–15 mm in diam. Scalelike leaves 2 or 3, 8–10 × 10–15 mm. Leaves 2–5(–9); petiole 10–20(–35) cm, subglabrous or puberulent, base sheathing and surrounded by fibrous remnants; leaf blade ternate, cordate-pentagonal, 5–10 (–12) × 5–15 cm, sparsely puberulent; petiolules 3–7 mm; central leaflet 3-lobed, rhombic, base cuneate, margin lobulate or coarsely dentate, apex acuminate; lateral leaflets unequally 2-parted, smaller than central one, ultimate lobules obtuse. Scapes 1–3, 20–40(–60) cm, subglabrous; cyme 1–3-flowered. Involucral bracts 3–5; petiole 1.5–3 cm × 1–2 mm, puberulent; bract blade ternate, similar to that of leaves, 5–8 × 6–9 cm, sparsely puberulent; petiolules 2–5 mm; central segment 3-lobed; lateral segments 2-parted. Bracteoles 1 or 2, 2–3 cm, broadly lanceolate, 3-lobed or 3-dentate. Pedicel 5–15 cm, puberulent. Sepals 5(or 6), white, elliptic or obovate, 15–20(–30) × 10–20 mm, sparsely puberulent along central vein or subglabrous, basal veins 5–7, vein anastomoses 5–15, base and apex rounded. Stamens 4–8 mm; filament filiform; anther narrowly ellipsoid. Staminodes present between stamens and carpels, 2–3 × ca. 2 mm. Ovary ovoid, slightly compressed, 3–4 mm, laterally ribbed, pubescent; style straight, short; stigma subcapitate. Achene body ovoid, slightly compressed, 3–5 × 2–3 mm, narrowly ribbed, glabrous or puberulent; style curved, conic, ca. 1 mm; stigma subcapitate. Fl. May–Jun.

- Mixed forests, bamboo thickets, shady places by streams, rocks in valleys; 1000–3500 m. Guizhou, W Hubei, W Hunan, Sichuan, SE Xizang (Médog Xian), NW Yunnan.

**9. *Anemone exigua*** Maximowicz, Bull. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 3, 23: 306. 1877.

小银莲花 xiao yin lian hua

Rhizome prostrate, stolonlike, long, 1–2 mm in diam., also oblique, short, 8–10 mm in diam. Leaves 2–5; petiole 5–10 (–20) cm, puberulent, base sheathing, surrounded by fibrous remnants; leaf blade ternate, cordate-pentagonal, 2–3 × 2.5–4 cm, sparsely puberulent; petiolules 1–3 mm; central leaflet 3-lobed, broadly rhombic, base cuneate, margin incised serrate, apex obtuse; lateral leaflets unequally 2-lobed, smaller than central one. Scape 5–15(–25) cm, sparsely puberulent distally; cyme 1-flowered. Involucral bracts 3; petiole 1–1.5 cm × 3–5 mm, base sheathing and

connate; bract blade 3-parted or 3-lobed, similar to that of leaves but smaller, triangular-ovate to ovate, puberulent; petiolules 1–2 mm. Pedicel 1–3 cm, puberulent. Sepals 5(or 6), white or yellow, elliptic to obovate, 5–8 × 3–5 mm, subglabrous or sparsely puberulent, basal veins 3–5, vein anastomoses absent. Stamens 3–4 mm; filament filiform, slightly compressed; anther ellipsoid, connective narrow. Pistils 5–20; ovary ovoid, 1.2–1.8 mm, sparsely puberulent or glabrous; style short, apically curved. Achene body ellipsoid, narrowly ribbed, 2.5–3 × ca. 1.5 mm, sparsely puberulent, hairs ca. 0.1 mm; style curved, conic, ca. 1 mm, glabrous. Fl. Jun–Aug.

- *Picea* forests, mixed *Betula* forests, scrub, shady places in valleys; 2000–3500 m. S Gansu, E Qinghai, S Shanxi, W Sichuan, Taiwan, NW Yunnan.

- Sepals white; pistils 5–10 ..... 9a. var. *exigua*
- Sepals yellow; pistils 10–20 ... 9b. var. *shanxiensis*

#### **9a. *Anemone exigua* var. *exigua***

小银莲花(原变种) xiao yin lian hua (yuan bian zhong)  
*Anemone takasagomontana* Masamune; *A. vitifolia* Buchanan-Hamilton ex de Candolle var.  
*takasagomontana* (Masamune) S. S. Ying;  
*Anemonoides exigua* (Maximowicz) Starodubtzev.  
 Sepals white. Pistils 5–10.

- *Picea* forests, scrub; 2000–3500 m. S Gansu, E Qinghai, S Shanxi, W Sichuan, Taiwan, NW Yunnan.

#### **9b. *Anemone exigua* var. *shanxiensis* B. L. Li & X. Y. Yu, Acta Phytotax. Sin. 27: 152. 1989.**

山西银莲花 shan xi yin lian hua  
 Sepals yellow. Pistils 10–20.

- Mixed *Betula* forests, shady places in valleys; ca. 2100 m. S Shanxi (Lingshi Xian).

#### **10. *Anemone griffithii* J. D. Hooker & Thomson, Fl. Ind. 21. 1855.**

三出银莲花 san chu yin lian hua

*Anemone caerulea* de Candolle var. *griffithii* (J. D. Hooker & Thomson) Ulbrich; *A. nanchuanensis* W. T. Wang; *Anemonoides griffithii* (J. D. Hooker & Thomson) Holub.

Rhizome prostrate, stolonlike, long, 1–2 mm in diam., also ascending, short, 4–7 mm in diam. Leaves 3–6; petiole 5–8 (–15) cm, subglabrous, base sheathing, surrounded by fibrous remnants; leaf blade ternate, rhombic, 2–4 × 3–4 cm, sparsely appressed puberulent; petiolules 2–5(–7) mm; central leaflet 3-lobed, rhombic or rhombic-ovate, base broadly cuneate, margin subacutely serrate or incised, apex acute; lateral leaflets unequally 2-parted or 2-lobed, obliquely flabellate. Scape solitary, 5–15(–20) cm, sparsely puberulent distally; cyme 1- or 2-flowered. Involucral bracts 3; petiole 5–10(–25) × 1–2 mm; bract blade ternate, similar to that of leaves but larger, 2–5 × 3–6 cm, sparsely puberulent; petiolules 1–3 mm; central segment 3-lobed; lateral segments 2-lobed, smaller than central one. Pedicel 2–5(–7) cm, densely puberulent.

Sepals 5(or 6), white, pinkish, or mauve, obovate-oblong, 6–8(–10) × 4–6 mm, subglabrous or sparsely puberulent, basal veins 3–5, vein anastomoses absent, rarely solitary. Stamens 3–6 mm; filament filiform; anther ellipsoid. Ovary ovoid, compressed, ribbed, subglabrous; style nearly absent; stigma subglobose. Achene body ovoid, compressed, 3–4 × 2–3 mm, glabrous, ribs 1–2 mm wide; style minute; stigma small. Fl. May–Jun.

Forests, streamsides; 1600–3000 m. C and SE Sichuan (Guan Xian, Nanchuan Xian), S Xizang [Bhutan, N India, ?Nepal, ?Sikkim].

#### **11. *Anemone scabriuscula* W. T. Wang, Acta Phytotax. Sin. 12: 160. 1974.**

糙叶银莲花 cao ye yin lian hua

Rhizome branched, erect or slightly oblique, short, 2–4 cm × 6–10 mm. Leaves 2–5; petiole 6–10 cm, sparsely puberulent or subglabrous, base sheathing, surrounded by fibrous remnants; leaf blade ternate, pentagonal or pentagonal-ovate, 3–7 × 3–8 cm, foveolate and roughish, strigose, base cordate; petiolules 1–2 mm; central leaflet 3-lobed, rhombic, base cordate, margin incised serrate, apex long acuminate; lateral leaflets unequally 2-parted, obliquely flabellate. Scape 4–6 cm, puberulent distally; cyme 1-flowered. Involucral bract petiole 0.5–1 cm × 1–2 mm; bract blade ternate, similar to that of leaves but smaller, 1.5–3.5 × 2–4 cm, sparsely puberulent; petiolules 1–2 mm; central segment 3-parted to 3-lobed; lateral segments 2-parted. Pedicel ca. 2 cm, densely substrigose. Sepals 5, white, obovate, 5–7 × 3–4 mm, densely puberulent, basal veins 3–5, vein anastomoses absent, base narrowed, apex rounded. Stamens 2–3 mm; filament filiform; anther ellipsoid, apex minutely mucronate. Ovary ovoid, ca. 2.5 mm, glabrous; style curved, short. Achenes not seen. Fl. Sep.

- Forests, semishaded slopes; ca. 3000 m. NW Yunnan (Lijiang Naxi Zu Zizhixian).

#### **12. *Anemone amurensis* (Korshinsky) Komarov, Trudy Imp. S.-Peterburgsk. Bot. Sada 22: 262. 1903.**

黑水银莲花 hei shui yin lian hua

*Anemone nemorosa* Linnaeus subsp. *amurensis* Korshinsky, Trudy Imp. S.-Peterburgsk. Bot. Sada 12: 292. 1892; *A. nemorosa* var. *fissa* Ulbrich; *Anemonoides amurensis* (Korshinsky) Holub.

Rhizome branched, prostrate or ascending, 3–10 cm × 1–3 mm. Scalelike leaves 2 or 3. Leaf solitary; petiole 7–15(–20) cm, pilose or subglabrous, base slightly dilated; leaf blade 1- or 2-ternate, pentagonal, 3–3.5 × 5–6 cm, abaxially glabrous, adaxially sparsely puberulent; petiolules 5–15 mm; central leaflet 3-sect or 3-parted, rhombic to broadly ovate, base subcordate to cuneate, margin crenate or dentate, apex obtuse to acuminate; lateral leaflets similar to central one, rhombic to obovate, central segment 3-lobed, rhombic,

lateral segments unequally 2-cleft, oblique. Scape (5–)10–25 cm, glabrous; cyme 1-flowered. Involucral bract petiole 10–15 × 3–5 mm, dilated and narrowly winged, pilose; bract blade ternate, similar to that of leaves, ovate to pentagonal, 2.5–4 × 2.5–4 cm, subglabrous or adaxially sparsely puberulent; petiolules 1–2 mm; central segment subpinnately parted, ovate-rhombic, base cuneate, margin serrate, apex acuminate; lateral segments 2-parted, ovate to lanceolate. Pedicel 1.5–5 cm, puberulent. Sepals 5–8, white, obovate to oblong, 10–15(–18) × 5–7(–10) mm, glabrous, basal veins 3–5, vein anastomoses absent, rarely solitary, base long narrowed, apex rounded. Stamens 4–7 mm; filament filiform, base and apex sometimes slightly dilated; anther ellipsoid, connective narrow. Ovary cylindric, 2.2–2.6 mm, densely puberulent, hairs ca. 0.2 mm; style straight, conic, very short; stigma subcapitate. Achene body cylindric to narrowly ovoid, 4–5 × 1.5–2 mm, pilose, hairs 0.1–0.2 mm; style slightly curved, 0.5–1 mm. Fl. Jun.

Forests, scrub, mainly in mountainous regions. E Heilongjiang, E Jilin, SE Liaoning (Fengcheng Xian) [N Korea, Russia (Far East)].

**13. *Anemone udensis*** Trautvetter & C. A. Meyer, Fl. Ochot. 6. 1856.

乌德银莲花 wu de yin lian hua

*Anemonoides udensis* (Trautvetter & C. A. Meyer) Holub.

Rhizome prostrate or ascending, long, 2–6 mm in diam., sometimes with thickened nodes. Scalelike leaves several, 4–6 mm. Leaf solitary; petiole 5–15(–20) cm, villous; leaf blade ternate, rhombic, 3–4 × 3.5–4.5 cm, abaxially sparsely villous, adaxially glabrous; petiolules 3–5 mm; central leaflet distally 3-lobed, obovate, base cuneate, margin crenate to incised dentate, apex obtuse to acute; lateral leaflets similar to central one, ovate to obovate, oblique. Scape 15–25(–40) cm, 1-flowered, spreading pubescent. Involucral bract petiole 2–3 cm × 1–2 mm; bract blade ternate, similar to that of leaves but larger, pentagonal, 4–7 × 5–7 cm, abaxially sparsely puberulent; petiolules 3–5(–10) mm; central segment 3-lobed or undivided, rhombic-obovate, base cuneate, margin crenate to serrate, apex obtuse to broadly acute; lateral segments obliquely elliptic, smaller than central one. Pedicel 5–10 cm, puberulent. Sepals 5, white, obovate to ovate, 10–18 × 5–13 mm, appressed pilose or subglabrous, basal veins 5–7, vein anastomoses 5–9. Stamens 4–6 mm; filament filiform; anther ellipsoid. Ovary cylindric, 2.5–3 mm, densely puberulent; style straight, short. Achene body fusiform, slightly compressed, 2–3 × ca. 1.5 mm, pilose (hairs 0.1–0.2 mm), base and apex narrowed; style straight or slightly curved, conic, 2–2.5 mm. Fl. May–Jun.

Grassy places in forests or on shady slopes; 200–500 m. E Jilin, Liaoning [N Korea, Russia (Far East)].

**14. *Anemone umbrosa*** C. A. Meyer in Ledebour, Fl. Altaic. 2: 361. 1830.

阴地银莲花 yin di yin lian hua

*Anemone extremitorientalis* (Starodubtzev)

Starodubtzev; *A. umbrosa* subsp. *extremitorientalis*

Starodubtzev; *Anemonoides extremitorientalis* (Starodubtzev) Starodubtzev; *A. umbrosa* (C. A. Meyer) Holub.

Rhizome branched, prostrate or ascending, long, 1–1.5 mm in diam. Scalelike leaves 2 or 3. Leaf solitary; petiole 5–15 cm, puberulent or subglabrous; leaf blade ternate, pentagonal, 2–4 × 2–4 cm, appressed puberulent or glabrous; petiolules 1–2 mm; central leaflet 3-lobed, long ovate, base cordate to cuneate, margin serrulate, apex obtuse to acuminate; lateral leaflets unequally 2-lobed, ovate to orbicular, base narrowly cuneate, margin crenate to dentate. Scape 8–20(–30) cm, subglabrous or pilose; cyme 1-flowered. Involucral bract petiole 1–2(–3) cm × 1–2 mm, glabrous or pilose; bract blade ternate, similar to that of leaves, pentagonal to triangular, 2–4 × 3–5 cm, puberulent; segments subsessile, central one 3-lobed, rhombic, lateral ones unequally 2-lobed, obovate to elliptic. Pedicel 3.5–6 cm, puberulent or villous. Sepals 5, white, ovate to elliptic, 7–14 × 4–10 mm, sparsely puberulent, basal veins 5 or 6, vein anastomoses absent, rarely solitary, base narrowed, apex rounded or obtuse. Stamens 4–6 mm; filament filiform; anther cylindric to ellipsoid, connective narrow. Staminodes sometimes present, 2.5–4 mm. Ovary shortly stipitate, elongate, 1.7–2 mm, densely puberulent; style straight or slightly curved, conic; stigma thickened. Achene body ovoid, 2–4 × 1.5–2 mm, pilose, hairs ca. 0.2 mm; style straight or slightly curved, ca. 1 mm. Fl. May–Jun.

Grassy places in forests or on shady slopes; 200–500 m. Heilongjiang, Jilin, Liaoning [N Korea, Russia (Far East)].

**15. *Anemone reflexa*** Stephan ex Willdenow, Sp. Pl. 2: 1282. 1799.

反萼银莲花 fan e yin lian hua

*Anemonoides reflexa* (Stephan ex Willdenow) Holub.

Rhizome prostrate or ascending, long, 1–2 mm in diam., also nodulose, short, 4–5 mm in diam. Scalelike leaves 2 or 3. Leaf solitary; petiole 10–25 cm; leaf blade ternate, 2–5 × 3–6 cm, glabrous or sparsely pilose; petiolules 5–15 mm; central leaflet subentire, elliptic to ovate, base cuneate, margin serrate, apex acute to acuminate; lateral leaflets similar to central one, ovate, but often deeply 2-lobed so leaf blade appears 5-parted. Scape 15–25(–30) cm, glabrous; cyme 1–3-flowered. Involucral bract petiole 10–20 × 1–2 mm; bract blade ternate, similar to that of leaves but larger, 4–8 × 4–7 cm, sparsely puberulent; segments subsessile, central one undivided, lateral ones unequally 2-cleft.

Bracteoles often 1 or 2, 3-parted, 1.5–2.5 cm. Pedicel 1.5–4 cm, densely puberulent. Sepals 5 or 6(7), bent or reflexed, white, linear-lanceolate, 5–7 × 1–3 mm, abaxially puberulent, basal veins 3, vein anastomoses absent. Stamens 2–5 mm; filament usually ovate-lanceolate or macelike, flat, dilated apically; anther ellipsoid or broadly ovoid. Ovary narrowly ovoid, ca. 2

mm, densely or sparsely puberulent, base narrowed; style straight, conic; stigma dilated. Achene body ellipsoid to ovoid,  $3-4 \times 1.5-2$  mm, narrowly ribbed, villous, hairs ca. 0.2 mm; style curved, conic, 1–1.5 mm. Fl. Apr–May.

Open forests, scrub, valleys. W Henan, S Jilin (Changbai Shan), S Shaanxi (Lantian Xian, Taibai Shan) [N Korea, Mongolia, Russia (Siberia)].

**16. *Anemone raddeana*** Regel, Bull. Soc. Imp. Naturalistes Moscou 34: 16. 1861.

多被银莲花 duo bei yin lian hua

Rhizome prostrate or ascending, long, 2–3 mm in diam., also nodulose, short, 4–8 mm in diam. Scalelike leaves 2 or 3, 1–2 cm. Leaf solitary, developing close to scape; petiole 5–20 cm, glabrous or sparsely puberulent; leaf blade ternate, pentagonal or orbicular-obovate,  $2-5 \times 2-4$  cm, subglabrous or sparsely pubescent; petiolules 10–30 mm; central leaflet 3-lobed or deeply toothed, obovate to elliptic, base cuneate to truncate, margin coarsely crenate to serrate, apex obtuse; lateral leaflets obliquely oblong or ovate, similar to central one. Scape 10–30 cm, subglabrous; cyme 1-flowered. Involucral bract petiole  $5-12 \times 1-2$  mm, glabrous; bract blade ternate, similar to that of leaves, rhombic-pentagonal,  $2-4 \times 2-5$  cm, sericeous; leaflets subsessile, narrowly ovate, apically deeply obtusely toothed. Pedicel 1–3 cm, sparsely puberulent or subglabrous. Sepals 9–15, white or white tinged purple, linear-oblong,  $12-20 \times 4-5$  mm, glabrous, basal veins 3–5, vein anastomoses 1–3, base and apex rounded. Stamens 4–8 mm; filament filiform, base and apex slightly dilated; anther cylindric. Ovary ovoid, ca. 2 mm, pilose; style straight, short; stigma linear. Achene body narrowly ovoid, slightly compressed, ca.  $3 \times 1.5$  mm, narrowly ribbed, villous, hairs ca. 0.2 mm; style curved, 1–1.5 mm. Fl. Apr–May.

Forests, shady places in valleys, shady grassy places; 500–1000 m. Heilongjiang, E Jilin, Liaoning, E Shandong, N Zhejiang [Japan, Korea, Russia (Far East)].

- 1a. Leaf petiole glabrous or subglabrous; leaf and bract blade central segment obovate, apex 3-lobulate or 3-dentate ..... 16a. var. *raddeana*  
1b. Leaf petiole villous; leaf and bract blade central segment broadly rhombic, apex many lobulate or many dentate .. 16b. var. *lacerata*

**16a. *Anemone raddeana* var. *raddeana***

多被银莲花(原变种) duo bei yin lian hua (yuan bian zhong)

*Anemone raddeana* subsp. *glabra* Ulbrich; *A. raddeana* var. *integra* Huth; *A. raddeana* subsp. *villosa* Ulbrich; *Anemonoides raddeana* (Regel) Holub.

Leaf petiole glabrous or subglabrous. Leaf and bract blade central segment obovate, apex 3-lobulate or 3-

dentate; lateral segments unequally 2-lobed or 2-lobulate, or entire.

Forests, shady grassy places; ca. 800 m. Heilongjiang, E Jilin, Liaoning, E Shandong [Japan, Korea, Russia (Far East)].

**16b. *Anemone raddeana* var. *lacerata*** Y. L. Xu, Bull. Bot. Res., Harbin 13: 121. 1993.

龙王山银莲花 long wang shan yin lian hua

Leaf petiole villous. Leaf and bract blade central segment broadly rhombic, apex many lobulate or many dentate; lateral segments unequally 2-parted.

• Shady places in valleys; 500–1000 m. N Zhejiang (Anji Xian).

**17. *Anemone altaica*** Fischer ex C. A. Meyer in Ledebour, Fl. Altaic. 2: 362. 1830.

阿尔泰银莲花 a er tai yin lian hua

*Anemone nemorosa* Linnaeus subsp. *altaica* (Fischer ex C. A. Meyer) Korshinsky; *Anemonoides altaica* (Fischer ex C. A. Meyer) Holub.

Rhizome prostrate, stolonlike, ca. 2 mm in diam., also oblique, nodulose, short, 5–8 mm in diam. Scalelike leaves 2 or 3, 4–6 mm. Leaf solitary; petiole 4–8 cm, subglabrous; leaf blade ternate,  $2.5-4 \times 3-6$  cm, glabrous; petiolules 5–10(–20) mm; central leaflet 3-lobed, subcordate-pentagonal, base cuneate, margin crenate to denticulate, apex acuminate or obtuse, segments sessile, 3-lobed; lateral leaflets similar to central one but 2-lobed or 2-cleft, slightly oblique, ultimate lobules obtuse. Scape 10–20(–30) cm, subglabrous; cyme 1-flowered. Involucral bract petiole flat,  $10-20(-30) \times 3-5$  mm, winged, sparsely puberulent or subglabrous; bract blade ternate, larger than that of leaves,  $3-6 \times 4-8$  cm, puberulent; petiolules 5–10(–20) mm; central segment 3-lobed, narrowly rhombic to elliptic, base cuneate, margin irregularly dentate or serrate, apex acuminate; lateral segments oblique, smaller than central one, ultimate lobules obtuse. Pedicel 3–5 cm, puberulent. Sepals 8–12, in 2 whorls, white, bluish, or reddish violet, oblong to narrowly elliptic, glabrous, base and apex rounded; outer whorl  $20-25 \times 5-8 (-12)$  mm, basal veins 5–9, vein anastomoses 3–5; inner whorl  $10-12 \times 3-4$  mm, without vein anastomoses. Stamens 4–8 mm; filament filiform, apex slightly dilated; anther ellipsoid, connective narrow. Ovary narrowly ovoid, ca. 1.5 mm, densely puberulent, base narrowed; style straight, conic, short, thickened; stigma subcapitate. Achene body ovoid to ellipsoid,  $3.5-5 \times 1.5-2$  mm, narrowly ribbed, puberulent (hairs ca. 0.2 mm), base narrowed; style curved to recurved, conic, 1–2 mm, base puberulent. Fl. Mar–May.

Forests, scrub, streamsides; 1200–1800 m. W Henan, NW Hubei, S Shanxi, N Xinjiang [Russia; SE Europe (Romania)].

**18. *Anemone rivularis*** Buchanan-Hamilton ex de Candolle, Syst. Nat. 1: 211. 1817.

草玉梅 cao yu mei

Caudex branched, erect or oblique, short or long, 8–15 mm in diam. Leaves 3–5; petiole 5–15(–25) cm, puberulent, base long sheathing; leaf blade 3-sect,

reniform-pentagonal, 3–10 × 5–15(–25) cm, strigose, pubescent, base cordate or cuneate; segments shortly petiolulate or subsessile; central segment 3-parted, broadly rhombic or rhombic-ovate, apex acute; lateral segments unequally 2-parted, obliquely flabellate, ultimate lobules linear-oblong. Scapes 1–3, 20–60(–120) cm; cyme compound, 2- or 3-branched, 10–30 cm, many flowered. Involucral bracts 3 or 4; petiole flat, 1–1.5 cm, winged; bract blade similar to that of leaves, 3-parted, broadly rhombic, 3–9 cm, puberulent, margin serrate. Bracteoles small. Pedicel 2–12 cm, pubescent. Sepals 5–10, white, blue, purplish, or mauve, elliptic or elliptic-ovate, 6–15 × 3–10 mm, abaxially puberulent, basal veins 5–7, vein anastomoses 5–10, apex densely barbate. Stamens 3–5 mm; filament filiform; anther ellipsoid or ovoid, ca. 1 mm. Pistils 30–60, glabrous; ovary narrowly ovoid; style often uncinate, long. Achene body ovoid or fusiform, slightly compressed, 5–8 × 2–5 mm, glabrous; style hooked, conic, 1.5–2 mm. Fl. May–Aug.

Forest margins, grassy slopes, streamsides, lakesides; 800–4900 m. C and S Gansu, W Guangxi, Guizhou, N and W Hebei, NW Henan, SW Hubei, S Nei Mongol, Ningxia, E Qinghai, Shaanxi, Sichuan, W Xinjiang, E and S Xizang, Yunnan [Bhutan, India, Indonesia (Sumatra), Nepal, Sikkim, Sri Lanka].

- 1a. Sepals 6–10, 10–15 × 5–10 mm; scape 20–60 cm ..... 18a. var. *rivularis*
- 1b. Sepals 5 or 6, 6–10 × 3–5 mm; scape 40–120 cm ..... 18b. var. *flore-minore*

#### **18a. *Anemone rivularis* var. *rivularis***

草玉梅(原变种) cao yu mei (yuan bian zhong)  
*Anemone esquirolii* H. Léveillé & Vaniot (1910), not H. Léveillé (1911); *A. leveillei* Ulbrich; *A. longipes* Tamura; *A. saniculifolia* H. Léveillé; *Anemonidium rivulare* (Buchanan-Hamilton ex de Candolle) Starodubtzev.

Scape 20–60 cm. Sepals 6–10, 10–15 × 5–10 mm.

Grassy slopes, streamsides, lakesides; 800–4900 m. SW Gansu, W Guangxi, Guizhou, SW Hubei, SE Qinghai, Sichuan, E and S Xizang, Yunnan [Bhutan, India, Indonesia (Sumatra), Nepal, Sikkim, Sri Lanka].

#### **18b. *Anemone rivularis* var. *flore-minore* Maximowicz, Fl. Tangut. 6. 1889.**

小花草玉梅 xiao hua cao yu mei

*Anemone barbulata* Turczaninow; *A. rivularis* subsp. *barbulata* (Turczaninow) Ulbrich; *A. rivularis* var. *barbulata* (Turczaninow) Turczaninow ex B. Fedtschenko; *Ranunculus moellendorffii* Hance. Scape 40–120 cm. Sepals 5 or 6, 6–10 × 3–5 mm.

• Forest margins, grassy slopes; 900–3000 m. C and S Gansu, N and W Hebei, NW Henan, S Nei Mongol, Ningxia, E Qinghai, Shaanxi, N Sichuan, W Xinjiang (Tekes Xian).

#### **19. *Anemone filisecta* C. Y. Wu & W. T. Wang, Acta Phytotax. Sin. 12: 165. 1974.**

细萼银莲花 xi e yin lian hua

*Anemonidium filisectum* (C. Y. Wu & W. T. Wang) Starodubtzev.

Rhizome branched, oblique, short, 4–5 mm in diam. Leaves 2–4; petiole 5–15(–20) cm, sparsely puberulent or subglabrous, base shortly sheathing; leaf blade 3-sect, reniform, 2–4 × 3–6 cm, subglabrous, base cordate; segments shortly petiolulate or subsessile; central segment 2- or 3-sect, subtriangular, margin linear-lanceolate lobulate; lateral segments unequally 2-parted, obliquely flabellate, margin dissected. Scapes 2 or 3, 25–40 cm, sparsely puberulent; cyme compound, 1- or 2-branched, 2–5-flowered. Involucral bracts 3; petiole flat, 6–7 mm, base sheathing; bract blade similar to that of leaves, palmately dissected, rhombic, 3–5 cm, margin linear lobulate. Pedicel 2–5 cm, glabrous. Sepals 4, white, oblong or narrowly elliptic, 5–7 × 3–4 mm, barbate, abaxially sparsely puberulent, apex rounded. Stamens 2–2.5 mm; filament filiform; anther ellipsoid. Pistils 3–10, ca. 2.5 mm; ovary narrowly ovoid, glabrous; style slightly uncinate. Achene body narrowly ovoid, compressed, 5–6 × 2–3 mm, glabrous; style uncinate, ca. 2 mm. Fl. Nov.

• Grassy places by rivers. S Yunnan (Jinghong Xian, Mengla Xian).  
**20. *Anemone hupehensis* (Lemoine) Lemoine, Lemoine's Cat. 176: 40. 1910.**

打破碗花花 da po wan hua hua

*Anemone japonica* (Thunberg) Siebold & Zuccarini var. *hupehensis* Lemoine, Lemoine's Cat. 170: 42. 1908. Caudex branched, erect, short, 8–12 × 0.5–0.7 cm, woody. Leaves 3–5; petiole 5–35 cm, densely pubescent, base sheathing; leaf blade ternate, sparsely strigose; petiolules 2–5 cm; central leaflet undivided, ovate or broadly so, 4–10 × 3–10 cm; lateral leaflets similar to central one but smaller. Scape 30–100 (–120) cm, sparsely pubescent; cyme 2- or 3-branched, many flowered. Involucral bracts 3; petiole 2–3 cm, base sheathing; bract blade similar to that of leaves, ternate, 3–7 cm. Pedicel 3–10 cm, pubescent, lateral ones with small, paired bracteoles. Sepals 5 (flowers single) or ca. 20 (flowers double, in cultivated plants), purple, purple-red, pink or white, obovate, 20–30 × 13–20 mm, abaxially velutinous, basal veins 5–9, vein anastomoses more than 10. Stamens 4–6 mm; filament filiform; anther ellipsoid. Pistils more than 180, long stipitate, ca. 1.5 mm; ovary velutinous; stigma rectangular. Achene body ovoid, ca. 2 × 1 mm, lanate, hairs 3–4 mm; style straight, short. Fl. Jul.–Oct.

• Scrub, grassy slopes, streamsides in hilly regions, sometimes cultivated or becoming naturalized; 400–2600 m. Native in N Guangdong, N Guangxi, Guizhou, W Hubei, Jiangxi, S Shaanxi, Sichuan, Taiwan, Yunnan, and E Zhejiang (Tiantai Shan); cultivated or naturalized (var. *japonica*) in Anhui, Fujian, Guangdong, Jiangsu, Jiangxi, Yunnan, and Zhejiang.

Cultivated plants with double flowers (with ca. 20 sepals) have been called *Anemone hupehensis* var. *japonica* (Thunberg) Bowles & Stearn (J. Roy. Hort. Soc. 72: 265. 1947; *Atragene japonica* Thunberg; *Anemone hupehensis* f. *alba* W. T. Wang; *A. hupehensis* var. *simplicifolia* W. T. Wang; *A. japonica* (Thunberg) Siebold & Zuccarini

(1835), not Houttuyn (1778); *A. scabiosa* H. Léveillé & Vaniot). They are believed to have been derived from *A. hupehensis* stock.

**21. *Anemone tomentosa* (Maximowicz) C. Pei, Contr. Biol. Lab. Chin. Assoc. Advancem. Sci., Sect. Bot. 9: 2. 1933.**

大火草 da huo cao

*Anemone japonica* (Thunberg) Siebold & Zuccarini var. *tomentosa* Maximowicz, Fl. Tangut. 7. 1889; *A. elegans* Decaisne var. *tomentosa* (Maximowicz) Handel-Mazzetti; *A. vitifolia* Buchanan-Hamilton ex de Candolle var. *tomentosa* (Maximowicz) Finet & Gagnepain; *Eriocapitella vitifolia* (Buchanan-Hamilton ex de Candolle) Nakai var. *tomentosa* (Maximowicz) Nakai.

Caudex branched, erect, ca. 10 cm × 4–7 mm, woody. Leaves 3–5; petiole 10–50 cm, pubescent; leaf blade ternate, adaxially strigose, base cordate, subcordate, or rounded, margin lobulate-serrate, apex acute; petiolules 2–5 cm; leaflets slightly oblique, abaxially white tomentose. Scape 40–150 cm, tomentose; cyme 2- or 3-branched, many flowered. Involucral bracts 3; petiole 2–3 cm; bract blade similar to that of leaves, unequally 3-parted or 3-lobed, 3–7 cm. Pedicel 4–7 cm, velvety. Sepals 5, white or pinkish, obovate or broadly elliptic, 15–20 × 10–20 mm, abaxially velutinous, basal veins 5–9, vein anastomoses more than 10. Stamens 4–6 mm; filament filiform; anther cylindric, ca. 1 mm, apex rounded. Ovary tomentose; stigma oblique, glabrous. Achene body fusiform, 2–3 × ca. 1 mm, lanate, hairs 6–7 mm; style straight, ca. 2 mm, pubescent. Fl. Jul–Oct.

• Open grassy slopes; 700–3400 m. W Hebei, W Henan, W Hubei, E Qinghai, Shaanxi, Shanxi, W Sichuan.

**22. *Anemone vitifolia* Buchanan-Hamilton ex de Candolle, Syst. Nat. 1: 211. 1817.**

野棉花 ye mian hua

*Anemone elegans* Decaisne; *A. matsudae* (Yamamoto) Tamura; *A. vitifolia* var. *matsudae* Yamamoto; *Eriocapitella elegans* (Decaisne) Nakai; *E. vitifolia* (Buchanan-Hamilton ex de Candolle) Nakai.

Caudex branched, erect, 5–10 cm × 8–15 mm. Leaves 2–5 or more; petiole 15–30(–60) cm, pubescent, base sheathing; leaf blade 3–5-lobed, cordate-ovate or orbicular-cordate, 10–20 (–30) × 10–20 cm, abaxially velutinous, adaxially sparsely shortly strigose, base cordate, margin denticulate, apex acute. Scapes 1–3, 50–80(–100) cm, densely or sparsely pubescent; cyme compound, 2- or 3-branched, 3–9-flowered. Involucral bracts 3; petiole 4–7 cm; bract blade similar to that of leaves, 3–5 lobed, 3–7(–12) × 4–8(–15) cm, pubescent. Bracteoles paired, small. Pedicel 4–5(–10) cm, velutinous. Sepals 5(–8), white or purplish, ovate or obovate, 15–20 × 8–15 mm, abaxially velutinous, basal veins 5–9, vein anastomoses more than 10. Stamens 3–4 mm; filament filiform; anther cylindric, ca. 1 mm, apex obtuse. Pistils ca. 400, pubescent. Achene body narrowly ellipsoid or fusiform, 1.5–2.0 × ca. 1 mm,

lanate, hairs 5–6 mm; style straight, ca. 1 mm, pubescent. Fl. Jul–Oct.

Sparse woods, grassy slopes, streamsides; 1200–2700 m. SW Sichuan, S Xizang, Yunnan [Bhutan, N India, Kashmir, N Myanmar, Nepal, Sikkim].

**23. *Anemone sylvestris* Linnaeus, Sp. Pl. 1: 540. 1753.**

大花银莲花 da hua yin lian hua

Rhizome branched, oblique, short, 10–15 mm in diam. Leaves 3–9; petiole 5–20 cm, pubescent, base sheathing; leaf blade 3-sect, cordate-pentagonal, 2–5 × 3–8 cm, abaxially sparsely puberulent along veins, adaxially subglabrous, base cordate; segments sessile; central segment 3-lobed, rhombic or obovate-rhombic, margin lobulate and sparsely dentate; lateral segments unequally 2-parted, obliquely flabellate. Scape 10–20 cm, puberulent or subglabrous; cyme 1(or 2)-flowered. Involucral bracts 2 or 3; petiole 3–25 mm; bract blade similar to that of leaves but smaller, 2–3 cm, 3-sect, base cordate, apex truncate or rounded; segments sessile, narrowly obovate, puberulent. Pedicel 5–15(–25) cm, puberulent. Sepals 5(or 6), white, obovate or elliptic, 15–20 × 10–15 mm, abaxially densely sericeous, basal veins 5–9, vein anastomoses more than 10. Stamens ca. 4 mm; filament filiform; anther cylindric, ca. 1 mm, apex rounded. Pistils 180 or more; ovary densely puberulent; stigma sessile, globose. Achene shortly stipitate; body fusiform, flat, 2–3 × ca. 2 mm, lanate, hairs 7–9 mm; style straight, ca. 1 mm, pubescent. Fl. May–Jun.

Forest margins, grassy or sandy slopes; 1300–3400 m. N Hebei, W Heilongjiang, W Jilin, W Liaoning, Nei Mongol, N Xizang [Mongolia, Russia; Europe].

**24. *Anemone gortschakowii* Karelín & Kirilov, Bull. Soc. Imp. Naturalistes Moscou 15: 131. 1842.**

块茎银莲花 kuai jing yin lian hua

Rhizome erect, tuberous, triangular-ovoid or irregular, short, 5–10 mm in diam. Leaves 2–4; petiole 5–10 cm, glabrous; leaf blade 3-sect, orbicular-pentagonal or reniform, 1–2 × 1–3 cm, base deeply cordate; segments subsessile; central segment 3-parted, flabellate-obovate, margin lobulate or rounded dentate; lateral segments unequally 2-lobed, obliquely flabellate. Scape 3–8 cm, glabrous; cyme 1-flowered. Involucral bracts 3, sessile; bract blade palmately parted, broadly rhombic, 1–2 cm, abaxially sparsely puberulent, margin dissected lobed. Pedicel 3–7 cm, puberulent. Sepals 5, yellow, elliptic, 10–12 × 4–7 mm, abaxially sparsely puberulent, basal veins 3–5, vein anastomoses 1–3. Stamens 3–4 mm; filament linear, base dilated; anther ellipsoid, ca. 1 mm, apex rounded. Pistils ca. 35; ovary densely pubescent; style filiform. Achene shortly stipitate; body ovoid, slightly compressed, 2.5–3 × 1.2–1.4 mm, lanate, hairs 3–4 mm; style almost straight, 2–2.5 mm. Fl. Apr–May.

Grassy slopes; 1400–3100 m. W Xinjiang [Kazakhstan].

**25. *Anemone rupicola* Cambessèdes in Jacquemont, Voy. Inde 4(Bot.): 5. 1835–1844.**

岩生银莲花 yan sheng yin lian hua

*Anemone batangensis* Finet.

Caudex branched, ascending or oblique, 4–10 cm × ca. 5 mm, covered with remnants of leaves, with root runners; taproot present. Leaves 3–5(–9); petiole 5–10(–15) cm, sparsely puberulent, base sheathing; leaf blade 3-sect, cordate-pentagonal, 2–6 × 2–10 cm, sparsely puberulent, base cordate, margin incised serrate; segments subsessile or shortly petiolulate; central segment 3-lobed, rhombic, margin lobulate and acutely denticulate; lateral segments unequally 2-parted, obliquely rhombic. Scape 5–25(–40) cm, spreading puberulent; cyme 1(or 2)-flowered.

Involucral bracts 3, subsessile or petiole 5–8 mm and broad; bract blade similar to that of leaves, 3-parted, ovate, 2.5–5 cm, sparsely puberulent, margin serrate. Bracteoles sometimes present, paired. Pedicel 3–7(–15) cm, pubescent. Sepals 5(–9), white, yellowish, or purplish, obovate or broadly elliptic, 15–20(–40) × 15–25 mm, abaxially densely puberulent, basal veins 5–7(–9), vein anastomoses more than 10. Stamens 3–5 mm; filament filiform; anther ellipsoid, ca. 1 mm, apex obtuse. Pistils ca. 100; ovary lanate; style short; stigma globose. Achene body ovoid, compressed, ca. 3 × 1.5 mm, winged, lanate, hairs 4–5 mm; style hooked, ca. 1 mm. Fl. Jun–Aug.

Woods, streamsides, stone cliffs, gravelly slopes; 2400–4200 m. W Sichuan, S Xizang, NW Yunnan [?Afghanistan, Bhutan, N India, Kashmir, Nepal, Pakistan, Sikkim].

**26. *Anemone laceratoincisa*** W. T. Wang, Fl. Reipubl. Sin. Popularis 28: 349. 1980.

锐裂银莲花 rui lie yin lian hua

*Anemone rupicola* Cambessèdes subsp. *laceratoincisa* (W. T. Wang) R. P. Chaudhary.

Rhizome branched, ascending, short, 2–3 mm in diam. Leaves 3–5; petiole 5–10(–12) cm, sparsely puberulent, base sheathing; leaf blade 3-sect, cordate-pentagonal, 3–5 × 4–8 cm, abaxially sericeous-villous along veins, adaxially subglabrous, base subcordate, apex pungent; segments shortly petiolulate; central segment 3-parted, rhombic, secondary lobes 2-lobed, ultimate lobules acuminate; lateral segments unequally 2-parted, obliquely rhombic. Scape 5–10(–20) cm, densely sericeous-villous; cyme 1-flowered. Involucral bracts 3, sessile; bract blade similar to that of leaves, 3-parted, 3–4 cm, margin with many long, acute teeth. Pedicel ca. 6 mm, spreading villous. Sepals 5, white, elliptic, 20–25 × 10–15 mm, abaxially appressed sericeous, basal veins 5–9, vein anastomoses more than 10, apex obtuse. Stamens 3–6 mm; filament filiform; anther ellipsoid, ca. 1 mm, apex rounded. Ovary densely pubescent; style ca. 2 mm.

• S Gansu (Wen Xian).

**27. *Anemone tibetica*** W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 349. 1980.

西藏银莲花 xi zang yin lian hua

Rhizome branched, ascending, short, ca. 10 mm in diam. Leaves 5–12; petiole 4–15 cm, sparsely spreading pubescent, base sheathing; leaf blade 3-parted, cordate-

pentagonal, 2.5–6 × 3–8 cm, densely puberulent, base subcordate, margin denticulate, apex acute; central segment 3-lobed, rhombic-elliptic; lateral segments unequally 2-lobed, obliquely obovate, slightly smaller than central one. Scapes 4 or 5, ca. 40 cm, spreading puberulent; cyme 2- or 3-flowered. Involucral bracts 3, sessile; bract blade 3-lobed, ovate, 2–3.5 cm, densely puberulent. Sepals 5, white, ovate, 18–20 × 10–20 mm, abaxially densely sericeous, basal veins 5–7, vein anastomoses 1 or 2. Stamens 4–5 mm; filament filiform; anther ellipsoid, ca. 1.5 mm. Pistils ca. 50; ovary densely pubescent; style subulate, ca. 1 mm. Fl. Aug.

• Streamsides in valleys; ca. 3100 m. SE Xizang (Lang Xian).

**28. *Anemone brevistyla*** C. C. Chang ex W. T. Wang, Acta Phytotax. Sin. 12: 163. 1974.

短柱银莲花 duan zhu yin lian hua

Rhizome branched, prostrate, long, ca. 2 mm in diam. Leaves 1 or 2; petiole 4–7 cm, strigose distally, base sheathing; leaf blade 3-sect, reniform or reniform-pentagonal, 4–5 × 7–9 cm, strigose, base deeply cordate, margin sparsely and irregularly obtusely dentate; segments sessile; central segment 3-lobed, rhombic-obovate, ca. 4 mm wide; lateral segments unequally 2-parted, obliquely flabellate. Scape 8–15(–20) cm, sparsely strigose distally; cyme 1-flowered. Involucral bracts 3, sessile; bract blade unequally 2- or 3-lobed, flabellate-obovate or obovate, 2–4 cm; lobes lobulate. Pedicel 3–5(–10) cm, sparsely strigose. Sepals 5, white, obovate, 12–15 × 7–9 mm, abaxially sparsely puberulent, basal veins 3–5, vein anastomoses 1–3. Stamens 3.5–5 mm; filament subfiliform; anther ellipsoid, ca. 1 mm, apex rounded. Pistils ca. 8; ovary densely pubescent; style subulate-terete, short. Fl. Apr.

• Scrub by rivers; ca. 1800 m. C Sichuan (Dujiang Yan Shi, Tianquan Xian).

**29. *Anemone begoniifolia*** H. Léveillé & Vaniot, Bull. Acad. Int. Géogr. Bot. 11: 46. 1902.

卵叶银莲花 luan ye yin lian hua

*Anemone bodinieri* H. Léveillé; *A. esquierolii* H. Léveillé (1911), not H. Léveillé & Vaniot (1910). Rhizome ascending, short, 5–6 mm in diam. Leaves 3–9; petiole 5–15(–20) cm, sparsely puberulent or glabrous, base sheathing; leaf blade undivided or 3–5-lobed, broadly ovate or cordate-ovate, 3–8 × 2–8(–10) cm, sparsely villous, base deeply cordate, margin irregularly dentate, apex acute or acuminate. Scapes 1 or 2, 15–40 cm, sparsely villous or subglabrous; cyme 3–7(–10)-flowered. Involucral bracts 3–9, sessile; bract blade 3-lobed or undivided, oblong, 0.6–1.4 cm, densely pubescent, apex acute. Pedicel 2–4 cm, densely puberulent. Sepals 5, white, obovate, 5–10 × 2–6 mm, abaxially sparsely puberulent, basal veins 3–5, vein anastomoses 3–5. Stamens 2–3 mm; filament filiform; anther ellipsoid or cylindric, ca. 1 mm, apex

rounded. Pistils ovoid, subglabrous. Achene body curved, rhombic-obovoid, ca.  $2 \times 1$  mm, longitudinally 1-ribbed on both surfaces; style curved, ca. 1 mm. Fl. Feb–Apr.

• Dense forests, shady places, rocks by streams in valleys; 700–1000 m. W Guangxi, Guizhou, SE Sichuan (Nanchuan Xian), SE Yunnan.

**30. *Anemone hokouensis*** C. Y. Wu ex W. T. Wang, Acta Phytotax. Sin. 12: 168. 1974.

河口银莲花 he kou yin lian hua

Rhizome branched, oblique, short, ca. 10 mm in diam. Leaves 2 or 3; petiole 15–30 cm, curved puberulent; leaf blade 3-lobed, cordate-ovate, 10–15 × 8–15 cm, abaxially shortly strigose along veins, adaxially sparsely strigose, base subcordate, margin denticulate, apex acuminate. Scape 40–60 cm, densely curved puberulent distally; cyme 4- or 5-flowered. Involucral bracts 5 or more (rarely to 10), subsessile; bract blade 3-lobed or undivided, rhombic to obovate, 1–1.5 cm, apex acute. Pedicel 1.5–2 cm, densely appressed puberulent. Sepals 5, purple, obovate or narrowly so, 15–20 × 8–14 mm, abaxially basally puberulent, basal veins 7–9, vein anastomoses more than 10. Stamens 2–5.5 mm; filament subfiliform; anther narrowly ellipsoid, ca. 1 mm, apex apiculate. Staminodes present. Pistils glabrous or pubescent; style curved, short. Fl. May–Jun.

• Mountainous regions; ca. 1200 m. SE Yunnan (Hekou Yao Zu Zizhixian).

**31. *Anemone orthocarpa*** Handel-Mazzetti, Acta Horti Gothob. 13: 176. 1939.

直果银莲花 zhi guo yin lian hua

Rhizome branched, erect, short, 15–20 × 10–12 mm. Leaves 3–7, some scalelike and 5–7 × 10–12 mm; petiole 5–15 cm, sparsely puberulent; leaf blade 3-parted, pentagonal, 3–5 × 3–7 cm, base cordate-truncate, margin sparsely denticulate, apex acuminate or long acuminate; central segment 3-lobed, rhombic; lateral segments unequally 2-lobed. Scape 20–30(–40) cm, sparsely puberulent; cyme 3–6-flowered. Involucral bracts 3–9, in 2 whorls, sessile; bract blade 3-lobed or undivided, narrowly rhombic, 6–20 mm, sparsely puberulent, base cuneate, margin dentate. Pedicel 3–8 cm, densely puberulent. Sepals 5, white, obovate, 4–5 × 2–3 mm, sparsely puberulent along central line, basal veins 3–5, vein anastomoses 3–5. Stamens 2–2.5 mm; filament filiform; anther cylindric, ca. 1 mm, apex obtuse. Pistils glabrous. Achene body ovoid, 3–4 × ca. 2 mm, longitudinally 1-veined, glabrous; style hooked, ca. 1 mm, persistent. Fl. Feb.

• SW Guizhou (Xingyi Xian).

**32. *Anemone howellii*** Jeffrey & W. W. Smith, Notes Roy Bot. Gard. Edinburgh 9: 78. 1916.

拟卵叶银莲花 ni luan ye yin lian hua

*Anemone begoniifoloides* W. T. Wang.

Rhizome ascending, short, 3–4 × 5–7 mm. Leaves 3–10; petiole 8–15 cm, sparsely puberulent, base

sheathing; leaf blade 3-cleft, cordate-ovate or cordate, 4–8 × 4–7 cm, sparsely strigose, base cordate, margin denticulate, apex acuminate or caudate-acuminate. Scape 20–30 cm, sparsely puberulent; cyme 3–5(–7)-flowered. Involucral bracts 3–5, subsessile; bract blade undivided or 3-dentate, rhombic or spatulate, 5–15 mm, sparsely puberulent. Pedicel 5–12 cm, densely pubescent. Sepals 5, pinkish, obovate, 8–10 × 6–7 mm, abaxially puberulent or subglabrous, basal veins 3–5, vein anastomoses absent. Stamens 3–5 mm; filament filiform; anther narrowly ellipsoid, ca. 1 mm, apex rounded. Achene body ovoid, slightly compressed, 4–5 × 2–3 mm, with lateral ribs 1 mm wide, glabrous; style curved, short. Fl. Mar–Aug.

Sparse forests, shady places, streamssides; 700–2300 m. NW Guangxi, SE and W Yunnan [NE India, N Myanmar].

**33. *Anemone tetrasepala*** Royle, Ill. Bot. Himal. Mts. 1: 53. 1834.

复伞银莲花 fu san yin lian hua

*Anemonastrum tetrasepalum* (Royle) Holub.

Leaves 3–7; petiole 15–30(–40) cm, puberulent or glabrescent; leaf blade deeply 5-lobed, reniform or cordate-reniform, 8–15 × 10–20 cm, leathery, abaxially appressed pubescent usually along veins, adaxially sparsely pubescent, base cordate; central segment 3-cleft, broadly rhombic, lobes with a few acute lobules or teeth; lateral segments unequally 2-parted, obliquely flabellate. Scapes 1 or 2, 25–50(–60) cm, sparsely puberulent; cyme compound, 2- or 3-branched, 7–15-flowered. Involucral bracts 2–4(–5), 3-parted or 3-lobed, 4–8 cm, leathery, densely pubescent. Bracteoles 3-lobed or undivided, lanceolate, 1.5–2 cm. Pedicel 4–10 cm, pubescent. Sepals 4(–5), white, obovate-oblong, 12–20 × 6–12 mm, glabrous, basal veins 5–7(–9), vein anastomoses 3–5(–7), base narrowed. Stamens 4–6 mm; filament slightly dilated; anther narrowly ellipsoid. Ovary ovoid, 3–4 mm; style curved, glabrous. Achene body ovoid, obovoid, or cylindric, 7–10 × 4–5 mm, glabrous, base narrowed; wings 1–1.3 mm wide; style hooked, 1.5–2 mm.

*Abies* forests; 2400–3100 m. S and W Xizang [Afghanistan, Kashmir, NW India, Pakistan].

**34. *Anemone elongata*** D. Don, Prodr. Fl. Nepal. 194. 1825.

加长银莲花 jia chang yin lian hua

*Anemonastrum elongatum* (D. Don) Holub.

Leaves 5–15; petiole 15–30 cm, ± densely pubescent; leaf blade 3-parted, rhombic-orbicular, 8–15 × 6–12 cm, scarcely puberulent or subglabrous; segments 2- or 3-lobed, rhombic, margin acutely dentate. Scape 40–80 cm, glabrous or sparsely puberulent; cyme compound, elongate, 7–15-flowered. Involucral bracts 3–7(–9), 3-parted, rhombic, 5–14 cm, sparsely puberulent. Bracteoles 3-cleft or entire, 2–4 cm. Pedicel 3–15 cm, base villous. Sepals 5, white, ovate, 12–20 × 6–12 mm, sparsely puberulent or glabrous, basal veins 3–5, vein anastomoses absent or solitary, base long narrowed, apex rounded. Stamens 3–5 mm; filament linear, anther cylindric. Ovary ovoid, base narrowed; style almost straight, short. Achene body ovoid-ellipsoid, 6–9 × 4–7

mm, glabrous; wings 1.2–1.3 mm wide; style straight or sometimes slightly curved, 1–1.5 mm.

Sparse forests, meadows; 1800–3700 m. Xizang [N India, N Myanmar, Nepal, Sikkim].

**35. *Anemone shikokiana*** (Makino) Makino, Bot. Mag. (Tokyo) 27: 116. 1913.

山东银莲花 shan dong yin lian hua

*Anemone narcissiflora* Linnaeus var. *shikokiana*

Makino, Bot. Mag. (Tokyo) 16: 58. 1902;

*Anemonastrum chosenicola* (Ohwi) Holub; *A.*

*schantungense* (Handel-Mazzetti) Holub; *A. sikokianum* (Makino) Holub; *Anemone chosenicola* Ohwi; *A. chosenicola* var. *schantungensis* (Handel-Mazzetti) Tamura; *A. schantungensis* Handel-Mazzetti.

Leaves 4–8; petiole 15–25(–32) cm, hirsute; leaf blade 3-parted, broadly rhombic to orbicular-reniform, 3–6(–10) × 2–5(–12) cm, ciliate and sericeous along veins or subglabrous, base cordate; segments 3-cleft for more than 1/2 their length or 3-cuspidate, flabellate-obovate, ultimate lobules obovate to narrowly ovate, sometimes falcate. Scapes 1–3, 25–40(–65) cm, sparsely pubescent or subglabrous; cyme simple or compound, 4–12 cm, 3–10-flowered. Involucral bracts 3–7; 3-parted or 3-cleft, flabellate or rhombic-obovate, 3–6 cm, ciliate or subglabrous. Bracteoles sometimes present, 3-lobed, 1.5–2 cm. Pedicel 4–6(–15) cm, hirsute. Sepals 4 or 5(or 6), white, elliptic to narrowly obovate, 7–10 × 4–6 mm, glabrous, basal veins 3–5, vein anastomoses absent, apex acuminate. Stamens 2–4 mm; filament linear, slightly dilated; anther narrowly ellipsoid. Ovary ovoid, glabrous. Achene body broadly ellipsoid, 5–6 × 3–4 mm, glabrous, base narrowed; wings 0.5–0.6 mm wide; style basally hooked, 0.6–1 mm. Fl. Jun–Jul.

Grassy meadows or rocky slopes in mountainous regions; 600–1100 m. E Shandong [Japan].

**36. *Anemone robusta*** W. T. Wang, Acta Phytotax. Sin. 12: 174. 1974.

粗壮银莲花 cu zhuang yin lian hua

Leaves 4–7; petiole 15–30 cm, subglabrous; leaf blade 3-sect, orbicular-ovate, 4–7 × 4–9 cm, abaxially glabrous, adaxially appressed puberulent; central segment shortly petiolulate, 3-parted, rhombic, lobes lobulate and dentate; lateral segments subsessile, unequally 2-parted, obliquely flabellate. Scape 70–120 cm, subglabrous; cyme 5–10-flowered. Involucral bracts 3; bract blade 3-parted, obovate or obovate-rhombic, 2.5–5 cm; lobes 3-lobulate, sparsely pubescent. Pedicel 5–12 cm, sparsely puberulent. Sepals 6–7, white, obovate, 15–25 × 7–10 mm, glabrous or subglabrous, basal veins 3–5, vein anastomoses 1–3. Stamens 3–6 mm; filament slightly dilated; anther ellipsoid. Ovary glabrous. Achene body broadly obovoid, ca. 6 × 4 mm, glabrous; style hooked, ca. 1 mm. Fl. Jun–Aug.

• Mountain valleys; 2500–3000 m. NW Yunnan (Weixi Lisu Zu Zizhixian).

**37. *Anemone cathayensis*** Kitagawa, Lin. Fl. Manshur. 213. 1939.

银莲花 yin lian hua

Leaves 4–8; petiole 6–25 cm, sparsely villous or glabrous; leaf blade 3-parted, orbicular-reniform, 3–6 × 4–9 cm, sparsely pubescent or glabrescent, base cordate; segments sessile; central segment 3-lobed, broadly rhombic or rhombic-obovate, lobes lobulate, ultimate lobules ovate or narrowly so; lateral segments unequally 3-parted, obliquely flabellate. Scapes 2–6, 15–40 cm, sparsely pubescent or glabrous; cyme 2–5-flowered. Involucral bracts 3–5; bract blade unequally 3-parted or 3-lobed, rhombic or obovate, 4–7 cm, margin dentate or entire. Pedicel 2–5 cm, sparsely pubescent or glabrous. Sepals 5 or 6(–10), white or pinkish, obovate or narrowly so, 10–18 × 5–10 mm, glabrous, basal veins 3–5, vein anastomoses 1–3. Stamens 4–5 mm; filament slightly dilated; anther narrowly ellipsoid. Ovary glabrous or pubescent. Achene body broadly ovoid or subglobose, 5–6 × 4–5 mm, winged, glabrous or pubescent; style curved, ca. 1 mm. Fl. Apr–Jul.

Grassy or gravelly slopes, streamsides; 1000–2800 m. Hebei, N Henan, Shanxi [Korea].

- 1a. Ovary and achene body glabrous 37a. var. *cathayensis*
- 1b. Ovary and achene body pubescent 37b. var. *hispida*

**37a. *Anemone cathayensis* var. *cathayensis***

银莲花(原变种) yin lian hua (yuan bian zhong)

*Anemonastrum chinense* (Kitagawa) Holub; *Anemone demissa* J. D. Hooker & Thomson var. *glabrescens* Ulbrich; *A. narcissiflora* Linnaeus subsp. *chinensis* (Kitagawa) Kitagawa; *A. narcissiflora* var. *chinensis* Kitagawa; *A. narcissiflora* var. *pekinensis* Schipczinski. Ovary and achene body glabrous.

Grassy or gravelly slopes, streamsides; 1000–2600 m. Hebei, Shanxi [Korea].

**37b. *Anemone cathayensis* var. *hispida*** Tamura, Acta Phytotax. Geobot. 17: 114. 1958.

毛蕊银莲花 mao rui yin lian hua

*Anemone cathayensis* f. *hispida* (Tamura) Kitagawa.

Ovary and achene body pubescent.

Grassy slopes; 1000–2800 m. N Henan (Lin Xian) [Korea].

**38. *Anemone narcissiflora*** Linnaeus, Sp. Pl. 1: 542. 1753, nom. et orth. cons.

水仙银莲花 shui xian yin lian hua

Leaves 4–9; petiole 5–30 cm, villous or pubescent; leaf blade 3-sect, pentagonal, suborbicular, or orbicular-ovate, 3–7 × 4–12 cm, sparsely pubescent, villous, or subglabrous, margin ciliate; segments petiolulate or subsessile; central segment 3-parted to 3-cleft, rhombic-ovate or broadly rhombic, ultimate lobules ovate to linear; lateral segments unequally 2- or 3-parted, obliquely flabellate. Scapes 1 or 2, 10–50 cm, villous or sparsely puberulent; cyme 1–5(–7)-flowered. Involucral bracts 3 or more; bract blade 3-parted to 3-cleft, broadly rhombic to narrowly obovate, 2–6 cm, usually

pubescent. Pedicel 2–5(–8) cm, pubescent. Sepals 5 or 6(–7), white or yellowish, rarely pinkish, obovate, 12–18 × 6–10 mm, pilose, sparsely puberulent, subglabrous, or glabrous, basal veins 3–9, vein anastomoses 1–3(–5) or absent, base attenuate, apex rounded. Stamens 2–5 mm; filament usually linear, rarely slightly dilated; anther cylindric. Ovary subglobose, compressed, distinctly laterally winged, usually glabrous; style bent, short. Achene body obovoid, 5–8 × 4–6 mm, glabrous, rarely with solitary hairs; wings 0.8–1.4 mm wide; style hooked, 0.8–1.4 mm. Fl. May–Jul.

*Picea* forests, bamboo thickets on slopes, scrub, alpine meadows, grassy slopes; 1800–4000 m. N Hebei, W Nei Mongol, NW Ningxia, Xinjiang, W Yunnan [Afghanistan, Kazakhstan, N Korea, Mongolia, Pakistan, Russia (Siberia), Tajikistan; SW Asia, Europe, North America].

Two subspecies occur in China, while *Anemone narcissiflora* subsp. *narcissiflora* is distributed in Europe, subsp. *fasciculata* (Linnaeus) Ziman & Fedorowczuk in SW Asia (Caucasus), and both subsp. *alaskana* Hultén and subsp. *zephyra* (A. Nelson) A. Löve et al. in North America.

- 1a. Sepals pilose or sparsely puberulent, vein anastomoses 2 or 3(–5). 38a. subsp. *protracta*
- 1b. Sepals glabrous, rarely subglabrous, vein anastomoses absent, rarely solitary 38b. subsp. *crinita*

**38a. *Anemone narcissiflora* subsp. *protracta*** (Ulbrich) Ziman & Fedorowczuk, Taxon. Evol. *Anemone narcissiflora* Complex, 34. 1997.

伏毛银莲花 fu mao yinlian hua

*Anemone narcissiflora* var. *protracta* Ulbrich, Bot. Jahrb. Syst. 37: 266. 1906; *Anemonastrum protractum* (Ulbrich) Holub; *A. schrenkianum* (Juzepczuk) Holub; *Anemone multilobulata* W. T. Wang & L. Q. Li; *A. narcissiflora* f. *contracta* Ulbrich; *A. narcissiflora* var. *contracta* (Ulbrich) Schipczinski; *A. narcissiflora* var. *turkestanica* Schipczinsky; *A. narcissiflora* var. *yuldussica* Schipczinski; *A. protracta* (Ulbrich) Juzepczuk; *A. schrenkiana* Juzepczuk.

Sepals pilose or sparsely puberulent, vein anastomoses 2 or 3(–5). Fl. Jun–Jul.

*Picea* forests, alpine meadows, grassy slopes; 1800–3800 m. W Xinjiang, NW Yunnan (Bijiang Xian) [Afghanistan, Kazakhstan, Pakistan, Tajikistan].

**38b. *Anemone narcissiflora* subsp. *crinita*** (Juzepczuk) Kitagawa, Lin. Fl. Manshur. 213. 1939.

长毛银莲花 chang mao yinlian hua

*Anemone crinita* Juzepczuk in Komarov, Fl. URSS 7: 739. 1937; *Anemonastrum crinitum* (Juzepczuk) Holub; *A. narcissiflorum* (Linnaeus) Holub subsp. *sibiricum* (Linnaeus) A. Löve & D. Löve; *A. sibiricum* (Linnaeus) Holub; *Anemone narcissiflora* var. *crinita* (Juzepczuk) Tamura; *A. narcissiflora* subsp. *sibirica* (Linnaeus) Hultén; *A. narcissiflora* var. *sibirica* (Linnaeus) Tamura; *A. sibirica* Linnaeus; *A. tengchongensis* W. T. Wang.

Sepals glabrous, rarely subglabrous, vein anastomoses absent, rarely solitary. Fl. May–Jul.

Bamboo thickets on slopes, scrub, grassy slopes; 2300–4000 m. W Nei Mongol, NW Ningxia, E Xinjiang, W Yunnan (Tengchong Xian) [N Korea, Mongolia, Russia (Siberia)].

**39. *Anemone demissa*** J. D. Hooker & Thomson, Fl. Ind. 23. 1855.

展毛银莲花 zhan mao yinlian hua

Leaves 5–10(–15); petiole 5–30 cm, sparsely or densely villous or lanate; leaf blade 3-sect, ovate, broadly so, rhombic-pentagonal, or reniform-pentagonal, 5–8 × 4–6(–12) cm, villous or subglabrous, base cordate or subtruncate, margin ciliate; central segment petiolulate (petiolule 5–15 mm), 3-parted, broadly rhombic or rhombic-ovate, margin incised lobulate, ultimate lobules ovate or triangular; lateral segments subsessile, unequally 2- or 3-parted, smaller than central one, sometimes much more so. Scapes 2 or 3(–5), 5–45(–80) cm, spreading villous; cyme umbellate, 1–5(–8)-flowered. Involucral bracts 3 or 4; bract blade 3-parted or 3-lobed, broadly rhombic or narrowly obovate-oblong, 2–4 cm, pubescent. Pedicel 2–6(–8) cm, pubescent. Sepals 5–7, blue, purple, red, or white, obovate or elliptic, 8–18 × 4–12 mm, sometimes dimorphic (inner ones smaller and of different shape), sparsely puberulent, basal veins 3–7, vein anastomoses 1–3. Stamens 3–5 mm; filament slightly dilated; anther cylindric, 1–2 mm, apex rounded. Staminodes sometimes present. Ovary glabrous or scarcely pubescent, sometimes sterile. Achene body broadly ellipsoid or obovoid, 6–7 × 4–6 mm, glabrous or scarcely pubescent; wings 0.8–1.2 mm wide; style curved, 1.8–2 mm. Fl. May–Jul.

Forests, sparse forests, scrub, grassy slopes, streamsides; 3000–4600 m. S Gansu, S Qinghai, W Sichuan, E and S Xizang, NW Yunnan [Bhutan, N India, Nepal, Sikkim].

- 1a. Leaf petiole densely villous or lanate ..... 39c. var. *villosissima*
- 1b. Leaf petiole sparsely or densely villous.
  - 2a. Scape 5–10 cm, cyme 1-flowered ..... 39b. var. *yunnanensis*
  - 2b. Scape 10–45 cm, cyme few flowered.
    - 3a. Scape 10–20 cm; leaf blade ovate, to 5 cm wide, lateral segments much smaller than central one 39a. var. *demissa*
    - 3b. Scape 20–45 cm; leaf blade usually rhombic-pentagonal, to 12 cm wide, lateral segments smaller than central one ..... 39d. var. *major*

**39a. *Anemone demissa* var. *demissa***

展毛银莲花(原变种) zhan mao yinlian hua (yuan bian zhong)

*Anemonastrum demissum* (J. D. Hooker & Thomson) Holub; *A. polyanthes* (D. Don) Holub; *Anemone bicolor* H. Léveillé; *A. demissa* var. *connectens* Brühl; *A.*

*demissa* var. *grandiflora* C. Marquand & Airy Shaw; *A. demissa* var. *monantha* Brühl; *A. demissa* var. *umbellata* Brühl; *A. narcissiflora* Linnaeus var. *demissa* (J. D. Hooker & Thomson) Janczewski; *A. polyanthes* D. Don.

Petiole sparsely or densely villous; leaf blade ovate, to 5 cm wide; lateral segments much smaller than central one. Scape 10–20 cm; cyme few flowered. Fl. Jun–Jul.

Sparse forests, grassy slopes; 3200–4600 m. SW Gansu, S Qinghai, W Sichuan, E and S Xizang [Bhutan, Nepal, Sikkim, Pakistan].

**39b. *Anemone demissa* var. *yunnanensis*** Franchet, Bull. Soc. Bot. France 33: 367. 1886.

云南银莲花 yun nan yin lian hua

Leaf petiole sparsely or densely villous. Scape 5–10 cm; cyme 1-flowered. Fl. Jun–Jul.

• Forests, grassy slopes; 3200–4000 m. SW Sichuan, NW Yunnan.

**39c. *Anemone demissa* var. *villossissima*** Brühl, Ann. Roy. Bot. Gard. (Calcutta) 5: 81. 1896.

密毛银莲花 mi mao yin lian hua

*Anemone demissa* var. *villosa* Ulbrich; *A. demissa* subsp. *villossissima* (Brühl) R. P. Chaudhary.

Leaf petiole densely villous or lanate. Fl. May–Jul.

Forests, scrub, grassy slopes, streamsides; 3000–4000 m. S Gansu, W Sichuan, S Xizang, NW Yunnan [Bhutan, N India, E Nepal, Sikkim].

**39d. *Anemone demissa* var. *major*** W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 351. 1980.

宽叶展毛银莲花 kuan ye zhan mao yin lian hua

*Anemone demissa* var. *macrantha* Brühl.

Petiole sparsely or densely villous; leaf blade usually rhombic-pentagonal, to 12 cm wide; lateral segments smaller than central one. Scape 20–45 cm; cyme few flowered. Fl. Jun–Jul.

Sparse forests, scrub, grassy slopes; 3200–4100 m. W Sichuan, S Xizang, NW Yunnan [Bhutan].

**40. *Anemone taipaiensis*** W. T. Wang, Fl. Tsingling. 1(2): 605. 1974.

太白银莲花 tai bai yin lian hua

Leaves 5–12; petiole 5–15 cm, densely spreading puberulent; leaf blade 3-sect, broadly ovate, 3–7 × 4–8 cm, abaxially puberulent, adaxially glabrous, base subtruncate or subcordate; segments sessile; central segment 3-parted, broadly rhombic, lobes subcontiguous or obovate, ultimate lobules ovate; lateral segments 3-lobed, similar to central one but smaller. Scapes 2–4, 15–40 cm, scarcely puberulent; cyme 1–5-flowered. Involucral bracts 3, 3-parted, broadly rhombic; lobes 3-dentate or entire, lanceolate, 2–4 cm, puberulent. Pedicel 3–6 cm, pubescent. Sepals 5, white, obovate, 7–10 × 5–6 mm, sparsely puberulent or subglabrous, basal veins 3–7, vein

anastomoses 3–5, apex rounded. Stamens 3–5 mm; filament slightly dilated; anther ellipsoid. Ovary glabrous. Achene body broadly ovoid or ovoid-globose, flattened, 6–7 × 2.5–3 mm, winged, glabrous; style curved, 1–1.5 mm. Fl. Jul.

• Grassy or gravelly slopes; 2900–3700 m. S Shaanxi (Qin Ling, Taibai Shan).

**41. *Anemone smithiana*** Lauener & Panigrahi, Notes Roy. Bot. Gard. Edinburgh 33: 491. 1975.

红萼银莲花 hong e yin lian hua

*Anemonastrum smithianum* (Lauener & Panigrahi) Holub.

Leaves 4–9(–20); petiole 10–20(–25) cm, spreading villous; leaf blade 3-parted, orbicular-pentagonal, 4–8 × 6–12 cm, appressed villous or pilose, base cordate; segments slightly imbricate, subsessile; central segment 3-parted, broadly rhombic, margin pinnatisect, ultimate lobules ovate obtuse; lateral segments unequally 2-parted, obliquely flabellate. Scapes 1 or 2, 20–45 cm, spreading villous; cyme 3–7(–10)-flowered. Involucral bracts 3–5(–7); 3-parted or 3-lobed, broadly rhombic or flabellate-rhombic, 2–5 cm. Pedicel 3–4(–10) cm, pubescent. Sepals 5(or 6), purple-red or pink, broadly elliptic or ovate, 15–20 × 10–15 mm, pubescent, sometimes so along central vein only, basal veins 5–7, vein anastomoses 1–3, apex rounded, sometimes 3–5-dentate. Stamens 3–6 mm; filament slightly dilated; anther ellipsoid. Ovary ovoid, glabrous. Achene body obovoid or subglobose, compressed, 4–8 × 4–5 mm, narrowly winged, glabrous; style straight or slightly curved, ca. 2 mm. Fl. Jun.

Scrub, streamsides; 3800–4300 m. S Xizang [Bhutan, Nepal, Sikkim].

**42. *Anemone imbricata*** Maximowicz, Fl. Tangut. 8. 1889.

叠裂银莲花 die lie yin lian hua

*Anemonastrum imbricatum* (Maximowicz) Holub; *Anemone obtusiloba* D. Don subsp. *imbricata* (Maximowicz) Brühl; *A. obtusiloba* subsp. *geum* (H. Léveillé) Ulbrich var. *violacea* Ulbrich.

Leaves 4–7; petiole 3–5 cm × 1–2 mm, villous, base sheathing; leaf blade 3-sect, elliptic-ovate, 2–3 × 1.2–2 cm, villous, base cordate; central segment petiolulate (petiolule 5–10 mm), 3-sect or 3-parted; lateral segments shortly petiolulate or subsessile, unequally 3-parted; segments and lobes imbricate. Scapes 3–5(–10), 5–12 cm, villous; cyme 1- or 2-flowered. Involucral bract blade 3-parted or 3-lobed, 1–2 cm, villous. Pedicel 1–3.5 cm, villous. Sepals 5–7(–9), purple or blackish purple, rarely whitish, obovate-oblong or obovate, sometimes dimorphic, 8–13 × 4–8 cm, glabrous or sparsely puberulent only along central vein, basal veins 3, vein anastomoses absent, apex acute. Stamens 3–5 mm; filament linear, slightly dilated; anther ellipsoid. Pistils broadly ovoid, 2.5–3 mm, glabrous. Achene body broadly ellipsoid, compressed,

4.5–6 × 3–4 mm, glabrous; wings 0.5–0.7 mm wide; style basally bent, ca. 1 mm. Fl. May–Jul.

• Scrub, grassy slopes; 3200–5300 m. SW Gansu, Qinghai, W Sichuan, E Xizang.

**43. *Anemone rupestris*** Wallich ex J. D. Hooker & Thomson, Fl. Ind. 21. 1855.

湿地银莲花 shi di yin lian hua

Leaves 4–7; petiole 3–10 cm × 1–2 mm, sparsely puberulent or subglabrous; leaf blade twice 3-sect, ovate, 1–5 × 1–6 cm, sparsely puberulent or glabrous, base subcordate; central segment petiolulate (petiolule 5–10 mm), 3-sect or 3-parted, broadly rhombic, secondary segments shortly petiolulate, ultimate lobules narrowly ovate or linear-lanceolate; lateral segments petiolulate (petiolule 2–5 mm) or subsessile, 3-parted or 3-lobed, subreniform. Scapes 2–6, 3–20 cm, sparsely puberulent or subglabrous; cyme 1–3-flowered. Involucral bract blade undivided or 2- or 3-lobed, ovate-oblong, cuneate-obovate, or rhombic, 1–3 cm. Pedicel 1–6 cm, puberulent or glabrous. Sepals 5 or 6(–8), white, blue, or purplish, oblong-elliptic or obovate, dimorphic, 5–10(–14) × 3–6(–8) mm, sparsely puberulent or glabrous, basal veins 3–5, vein anastomoses absent. Stamens brown, 3.5–4.3 mm; filament lanceolate, 0.3–0.4 mm wide; anther light, cylindric, connective dark, narrow. Pistils dark, 2.8–3.3 mm, sparsely puberulent or glabrous; style downcurved. Achene body broadly ellipsoid, compressed, 2.5–4 × 1.6–2 mm, sparsely puberulent or glabrous; ribs 0.2–0.3 mm wide; style slightly curved, sometimes basally bent, conic, 1.2–1.8 mm. Fl. May–Sep.

*Rhododendron* scrub, slopes, alpine meadows, streamsides, rocky outcrops; 2500–5000 m. NW Sichuan, S Xizang, NW Yunnan, [Bhutan, ?NE India (Assam), Nepal, Sikkim].

- 1a. Leaf blade 2–5 × 1–6 cm; scape 10–20 cm; cyme 1–3-flowered; sepals 5 or 6, 8–10(–14) × 4–6(–8) mm; sepals, pistils, and achenes sparsely puberulent ..... 43a. subsp. *rupestris*
- 1b. Leaf blade 1–1.5 × 1–2 cm; scape 3–12 cm; cyme 1-flowered; sepals 5–8, 5–7 × 3–4 mm; sepals, pistils, and achenes glabrous ..... 43b. subsp. *gelida*

**43a. *Anemone rupestris* subsp. *rupestris***

湿地银莲花(原亚种) shi di yin lian hua (yuan ya zhong)

*Anemone bhutanica* Tamura; *A. obtusiloba* D. Don var. *coerulea* Ulbrich; *A. obtusiloba* var. *pusilla* Brühl; *A. obtusiloba* var. *wallichii* Brühl.

Leaf blade 2–5 × 1–6 cm. Scape 10–20 cm; cyme 1–3-flowered. Sepals 5 or 6, 8–10(–14) × 4–6(–8) mm. Sepals, pistils, and achenes sparsely puberulent. Fl. May–Aug.

Slopes, streamsides; 2500–3000 m. SE Xizang, NW Yunnan [Bhutan, Nepal, Sikkim].

**43b. *Anemone rupestris* subsp. *gelida*** (Maximowicz) Launer, Notes Roy. Bot. Gard. Edinburgh 23: 199. 1960.

冻地银莲花 dong di yin lian hua

*Anemone gelida* Maximowicz, Trudy Imp. S.-Peterburgsk. Bot. Sada 11: 21. 1890.

Leaf blade 1–1.5 × 1–2 cm. Scape 3–12 cm; cyme 1-flowered. Sepals 5–8, 5–7 × 3–4 mm. Sepals, pistils, and achenes glabrous. Fl. Jun–Sep.

Alpine meadows; 4800–5000 m. NW Sichuan, S Xizang, NW Yunnan (Zhongdian Xian) [Bhutan, Nepal, Sikkim].

Plants from Xizang, Bhutan, Nepal, and Sikkim with undivided involucral bracts, 5 or 6 sepals, and several pistils have been called *Anemone rupestris* var. *wallichii* Brühl (Ann. Roy. Bot. Gard. (Calcutta) 5: 80. 1896).

**44. *Anemone polycarpa*** W. E. Evans, Notes Roy. Bot. Gard. Edinburgh 13: 154. 1921.

多果银莲花 duo guo yin lian hua

*Anemone obtusiloba* D. Don subsp. *omalocarpella* Brühl; *A. obtusiloba* subsp. *saxicola* Brühl; *A. rupestris* Wallich ex J. D. Hooker & Thomson subsp. *polycarpa* (W. E. Evans) W. T. Wang; *A. saxicola* (Brühl) Tamura & Kitamura.

Leaves 5–12; petiole 5–12 cm × ca. 1 mm, sparsely puberulent; leaf blade twice 3-sect, ovate, 3–5 × 2–4 cm, sparsely puberulent, base rounded; central segment petiolulate (petiolule 10–15 mm), 3-parted, broadly ovate; lateral segments petiolulate (petiolule 3–5 mm), 3-lobed, ovate. Scapes 2–5, 5–20 cm, pubescent; cyme 1–3-flowered. Involucral bract blade 3-parted, obovate-rhombic, 1–3 cm, puberulent. Sepals 5 or 6(or 7), reddish white, ovate-elliptic, monomorphic, 7–14 × 4–9 mm, usually sparsely puberulent, basal veins 3–5, vein anastomoses absent. Stamens dark, 3–4 mm; filament linear; anther cylindric. Staminodes absent. Pistils up to 80, long ellipsoid, 3–3.5 mm, villous; style hooked. Achene body fusiform, compressed, 3–4 × ca. 2.5 mm, sparsely puberulent only along central vein, hairs dimorphic: ca. 1 mm and ca. 0.3 mm; ribs ca. 0.1 mm wide; style apically thickened and uncinate, 1–4 × ca. 1.6 mm. Fl. Jun–Sep.

Grassy slopes, among rocks; 3600–4800 m. Sichuan, SE Xizang, NW Yunnan [Bhutan, Nepal, Sikkim].

**45. *Anemone trullifolia*** J. D. Hooker & Thomson, Fl. Ind. 22. 1855.

匙叶银莲花 chi ye yin lian hua

Leaves 4–10; petiole flat, 1–3(–5) cm × 3–5 mm, villous or densely pubescent, rarely puberulent; leaf blade 3-lobed, 3-parted, or 3-cleft, spatulate, rhombic, ovate-rhombic, or obovate, 2–7 × 1–5 cm, villous or densely pubescent, base attenuate, sometimes cuneate,

margin distally dentate, apex rounded. Scapes 2–7, 3–15(–20) cm, villous or densely pubescent; cyme 1- or 2(or 3)-flowered. Involucral bract blade 3-lobed, 3-dentate, or entire, narrowly obovate or lanceolate, 1–2.5 cm, hirsute, margin entire or remotely 3-dentate. Bracteoles sometimes present, paired, small. Pedicel 1–5(–8) cm, pubescent or puberulent. Sepals 5 or 6(–15), white, yellow, pinkish, purplish, or blue, elliptic-obovate or narrowly so, 5–12(–15) × 4–8(–10) mm, densely or sparsely pubescent, hirsute, or villous, basal veins 3–5, vein anastomoses 1 or 2(or 3) or absent. Stamens light brown, 1.8–3.4 mm; filament narrowly ovoid, 0.5–0.7 mm wide; anther globose, small. Pistils light brown, cylindric-ovoid, 2–4 mm; ovary villous or pubescent. Achene body ellipsoid-ovoid or fusiform, slightly compressed, 3.2–4.4. × 1.6–2.2 mm, without ribs, villous, hairs ca.1 mm; style usually straight, 2–2.6 mm. Fl. May–Aug.

Streamsides in forests, alpine meadows; 2500–4500 m. SW Gansu, S Qinghai, S Sichuan, S Xizang, NW Yunnan [Bhutan, Nepal, Sikkim].

- 1a. Leaf blade 3-lobed; involucral bract blade 3-lobed or entire; sepal vein anastomoses usually 1 or 2(or 3) ..... 45a. var. *trullifolia*
- 1b. Leaf blade 3-parted or 3-cleft; involucral bract blade 3-lobed or 3-dentate; sepal vein anastomoses absent.
  - 2a. Leaf blade 3-parted, spatulate; involucral bract blade 3-lobed; sepals 7–9 × 5–6 mm, villous ..... 45b. var. *liangshanica*
  - 2b. Leaf blade 3-cleft, rhombic; involucral bract blade 3-dentate or entire; sepals 9–13 × 4–8 mm, sparsely pubescent ..... 45c. var. *lutienensis*

#### **45a. *Anemone trullifolia* var. *trullifolia***

匙叶银莲花(原变种) chi ye yin lian hua (yuan bian zhong)

*Anemone chumulangmaensis* W. T. Wang; *A. obtusiloba* D. Don var. *spatulata* Brühl; *A. obtusiloba* subsp. *trullifolia* (J. D. Hooker & Thomson) Brühl.

Leaf blade 3-lobed. Involucral bract blade 3-lobed or entire. Sepal vein anastomoses usually 1 or 2(or 3).

Streamsides in forests and alpine meadows; 2500–4500 m. SW Sichuan, S Xizang, NW Yunnan [Bhutan, Nepal, Sikkim].

#### **45b. *Anemone trullifolia* var. *liangshanica* (W. T. Wang) Ziman & B. E. Dutton, comb. et stat. nov.**

凉山银莲花 liang shan yin lian hua

Basionym: *Anemone liangshanica* W. T. Wang, Acta Phytotax. Sin. 12: 171. 1974.

Leaf blade 3-parted, spatulate. Involucral bract blade 3-lobed. Sepals 7–9 × 5–6 mm, villous, vein anastomoses absent. Fl. Jun–Aug.

• Alpine meadows; 2800–3600 m. S Sichuan (Leibo Xian).

#### **45c. *Anemone trullifolia* var. *lutienensis* (W. T. Wang) Ziman & B. E. Dutton, comb. et stat. nov.**

鲁甸银莲花 lu dian yin lian hua

Basionym: *Anemone lutienensis* W. T. Wang, Acta Phytotax. Sin. 12: 172. 1974.

Leaf blade 3-cleft, rhombic. Involucral bract blade 3-dentate or entire. Sepals 9–13 × 4–8 mm, sparsely pubescent, vein anastomoses absent. Fl. May–Jun.

• Alpine meadows; ca. 4000 m. NW Yunnan (Lijiang Naxi Zu Zizhixian).

#### **46. *Anemone coelestina* Franchet, Bull. Soc. Bot. France 32: 4. 1885.**

蓝匙叶银莲花 lan chi ye yin lian hua

Leaves 5–10; petiole 1–4 × ca. 1 cm, villous or densely pubescent; leaf blade undivided to nearly 3-lobed, linear to oblanceolate or ovate-oblong, 2–8 × 1–3 cm, villous, base cuneate-attenuate, margin obtusely or acutely dentate. Scapes 2–8, 3–10 cm, densely pubescent; cyme 1-flowered. Involucral bract blade undivided, linear-lanceolate, 1–3 cm, villous, apex obtuse or acute. Pedicel 1–3 cm, villous. Sepals 5 or 6, bluish white, yellow, reddish orange, reddish violet, or bluish violet, broadly elliptic, 8–14 × 7–12 mm, densely pubescent, basal veins 3–5, vein anastomoses usually absent, sometimes solitary. Stamens yellow, 2.5–3 mm; filament usually linear; anther light, globose, connective broad. Staminodes absent or occasionally present. Pistils light, ovoid, 3–4 mm, villous; style straight. Achene body ovoid, 3–4.5 × ca. 2 mm, without ribs, villous, hairs ca.1 mm; style almost straight, ca. 2.5 mm.

*Rhododendron* forests, scrub, alpine meadows, grassy slopes, streamsides; 2500–5000 m. SW Gansu, S Qinghai, Sichuan, E and S Xizang, Yunnan [Bhutan, NE India, Nepal, Sikkim].

- 1a. Leaf blade nearly 3-lobed, ovate-oblong; sepals usually bluish white, vein anastomose solitary; staminodes absent ..... 46a. var. *coelestina*
- 1b. Leaf blade usually undivided, rarely obscurely 3-lobed, linear to oblanceolate; sepals usually bluish violet, vein anastomoses absent; staminodes absent or occasionally present.
  - 2a. Leaf blade linear, margin acutely dentate; staminodes absent ... 46b. var. *linearis*
  - 2b. Leaf blade oblanceolate, margin obtusely dentate; staminodes occasionally present ..... 46c. var. *holophylla*

#### **46a. *Anemone coelestina* var. *coelestina***

蓝匙叶银莲花(原变种) lan chi ye yin lian hua (yuan bian zhong)

*Anemone bonatiana* H. Léveillé; *A. coelestina* var. *polygyna* H. F. Comber; *A. obtusiloba* D. Don subsp. *coelestina* (Franchet) Brühl; *A. trullifolia* J. D. Hooker & Thomson var. *coelestina* (Franchet) Finet & Gagnepain.

Leaf blade nearly 3-lobed, ovate-oblong. Sepals usually bluish white, vein anastomose solitary. Staminodes absent.

Scrub, alpine meadows; 3500–4800 m. Sichuan, Yunnan [Sikkim].

**46b. *Anemone coelestina* var. *linearis* (Brühl) Ziman & B. E. Dutton, comb. nov.**

条叶银莲花 tiao ye yin lian hua

Basionym: *Anemone obtusiloba* subsp. *trullifolia* (J. D. Hooker & Thomson) Brühl var. *linearis* Brühl, Ann. Roy. Bot. Gard. (Calcutta) 5: 77. 1896; *A. trullifolia* var. *linearis* (Brühl) Handel-Mazzetti; *A. trullifolia* var. *souliei* Finet & Gagnepain.

Leaf blade usually undivided, rarely obscurely 3-lobed, linear, margin acutely dentate. Sepals usually bluish violet, vein anastomoses absent. Staminodes absent. Scrub, alpine meadows; 3500–5000 m. SW Gansu, S Qinghai, W Sichuan, E and S Xizang, NW Yunnan [Bhutan].

**46c. *Anemone coelestina* var. *holophylla* (Diels) Ziman & B. E. Dutton, comb. nov.**

拟条叶银莲花 ni tiao ye yin lian hua

Basionym: *Anemone trullifolia* var. *holophylla* Diels, Notes Roy. Bot. Gard. Edinburgh 5: 263. 1912; *A. coelestina* f. *holophylla* (Diels) H. F. Comber.

Leaf blade usually undivided, rarely obscurely 3-lobed, oblanceolate, margin obtusely dentate. Sepals usually bluish violet, vein anastomoses absent. Staminodes occasionally present.

*Rhododendron* forests, grassy slopes, streamsides; 2500–3500 m. SW Sichuan, NW Yunnan [Bhutan, NE India, Nepal, Sikkim].

**47. *Anemone yulongshanica* W. T. Wang, Bull. Bot. Res., Harbin 16: 159. 1996.**

玉龙山银莲花 yu long shan yin lian hua

Leaves 5–9; petiole 4–13 cm × 2–3 mm, pubescent or densely villous; leaf blade 3-parted or 3-lobed, pentagonal or broadly ovate, 1–5.5 × 1–6 cm, herbaceous or papery, pubescent or villous, base truncate, sometimes subcordate; central segment 3-lobed, obscurely so, or undivided, rhombic-ovate or broadly rhombic, sparsely obtusely dentate; lateral lobes unequally 2-lobed, obliquely broadly cuneate or flabellate. Scapes 2–9, 3–15(–35) cm, villous or pubescent; cyme 1-flowered. Involucral bract blade unequally slightly 3-lobed or undivided, narrowly rhombic or oblong-lanceolate, 0.7–3 cm, pubescent. Pedicel 1–7 cm, puberulent. Sepals 5 or 6, white, yellow, or blue, narrowly obovate or elliptic, 8–16 × 8–10 mm, sparsely appressed pubescent, basal veins 3, vein anastomoses absent. Stamens 2–3 mm; filament lanceolate. Pistils 2.5–3.5 mm; ovary linear-lanceolate or narrowly ovoid, equaling or slightly longer than style, sericeous or pubescent. Achene body ovoid, 2.8–3.7 × 1.8–2.2 mm, without ribs, villous, hairs ca. 1 mm; style 1.4–1.6 mm, straight or slightly curved. Fl. Apr.–Jul.

• *Abies* forests, grassy slopes, rocks by streams; 2600–3900 m. NW Yunnan, SW Sichuan.

1a. Leaf petiole 6–13 cm, pubescent; leaf blade 3–5.5 × 4–6 cm; central segment 3-lobed; involucral bract blade 1.5–3 cm; sepals 6, white; ovary linear-lanceolate, equaling style, sericeous .. 47a. var. *yulongshanica*

1b. Leaf petiole 4–5 cm, densely villous; leaf blade 1–3.5 × 1–4 cm; central segment obscurely 3-lobed or undivided; involucral bract blade 0.7–2 cm; sepals 5(or 6), white, yellow, or blue; ovary narrowly ovoid, slightly longer than style, pubescent ..... 47b. var. *truncata*

**47a. *Anemone yulongshanica* var. *yulongshanica***

玉龙山银莲花(原变种) yu long shan yin lian hua  
(yuan bian zhong)

Petiole 6–13 cm, pubescent; leaf blade 3–5.5 × 4–6 cm; central segment 3-lobed. Involucral bract blade 1.5–3 cm. Sepals 6, white. Ovary linear-lanceolate, equaling style, sericeous. Fl. Jul.

• Rocks by streams; ca. 2800 m. NW Yunnan (Lijiang Naxi Zu Zizhixian).

**47b. *Anemone yulongshanica* var. *truncata* (H. F. Comber) W. T. Wang, Bull. Bot. Res. Harbin 16: 30. 1996.**

截基银莲花 jie ji yin lian hua

*Anemone coelestina* Franchet var. *truncata* H. F. Comber, Notes Roy. Bot. Gard. Edinburgh 18: 226. 1934; *A. obtusiloba* D. Don subsp. *ovalifolia* Brühl var. *truncata* (H. F. Comber) W. T. Wang.

Petiole 4–5 cm, densely villous; leaf blade 1–3.5 × 1–4 cm; central segment obscurely 3-lobed or undivided. Involucral bract blade 0.7–2 cm. Sepals 5(or 6), white, yellow, or blue. Ovary narrowly ovoid, slightly longer than style, pubescent. Fl. Apr.–Jul.

• *Abies* forests, grassy slopes; 2600–3900 m. SW Sichuan (Muli Zang Zu Zizhixian), NW Yunnan (Lijiang Naxi Zu Zizhixian).

**48. *Anemone subindivisa* W. T. Wang, Acta Phytotax. Sin. 12: 173. 1974.**

微裂银莲花 wei lie yin lian hua

Leaves 3–7; petiole flat, 2.5–4 × 0.5–1.0 cm, villous; leaf blade undivided or obscurely 3-lobed, broadly ovate or orbicular-ovate, 3–4 × 2–3 cm, villous, base usually truncate, margin obtusely dentate, apex rounded. Scapes 2–5, 3–15 cm, villous; cyme 1-flowered.

Involucral bract blade entire or subequally 3-dentate, lanceolate, 1–2 cm, villous, apex obtuse. Pedicel 0.5–1 cm, villous. Sepals 5 or 6, white, broadly elliptic, 8–12 × 5–8 mm, sparsely puberulent, basal veins 3–5, vein anastomoses absent. Stamens 3–5 mm; filament lanceolate. Staminodes absent. Pistils 3–3.5 mm; ovary densely pubescent. Achenes not seen. Fl. May–Jul.

• *Abies* or *Pinus* forests, grassy slopes; 2500–4000 m. SW Sichuan (Muli Zang Zu Zizhixian), NW Yunnan (Eryuan Xian).

**49. *Anemone obtusiloba* D. Don, Prodr. Fl. Nepal. 194. 1825.**

钝裂银莲花 dun lie yin lian hua

Leaves 5–10(–20); petiole 3–15(–20) cm × 1–2 mm, villous or pubescent; leaf blade usually 3-sect, sometimes 3-parted, reniform-pentagonal to broadly ovate, (1–)2–6(–10) × 2–8(–10) cm, densely spreading villous, sparsely pubescent, or sometimes abaxially subglabrous, base cordate, rarely subtruncate; segments overlapping or remote; central segment shortly petiolulate, 3-parted, 3-cleft, or 2- or 3-lobed, rarely undivided, rhombic-ovate to broadly rhombic, subequaling or larger than lateral segments, margin obtusely lobulate-dentate; lateral segments subsessile, unequally 2- or 3-parted or 2- or 3-lobed, obliquely flabellate to ovate. Scapes 2–5, 5–25(–40) cm, spreading villous; cyme 1- or 2(or 3)-flowered. Involucral bract blade 3-parted, 3-cleft, 3-lobed, 3-dentate, or undivided, broadly rhombic, rhombic-obovate, oblong-ovate, lanceolate, or cuneate, 1–3 cm, appressed pilose. Pedicel 1–3(–5) cm, appressed pilose. Sepals 5 or 6(–8), white, yellowish, or bluish, obovate or elliptic, 5–15(–20) × 3–8(–10) mm, abaxially pilose, basal veins 3–5(–7), vein anastomoses absent, sometimes solitary. Stamens brownish yellow, 2.2–3(–5) mm; filament linear, slightly narrowed apically, 0.5–0.8 mm wide; anther dark, ellipsoid, connective dark, narrow. Pistils brown, 2–3(–4) mm; ovary ovoid, usually villous or sometimes subglabrous; style straight or curved. Achene body broadly ovoid, rarely slightly compressed, 3–6 × 2–3.5 mm, without ribs; densely strigose, softly pubescent (hairs 0.6–1.6 mm), or subglabrous; style usually apically hooked or sometimes straight, 1–2.5 mm. Fl. May–Jul.  
Forests, forest margins, alpine meadows, grassy slopes; 2900–4000 m. SW Sichuan, E and S Xizang, W Yunnan [Afghanistan, Bhutan, N India, Kashmir, Mongolia, Myanmar, Nepal, Pakistan, Sikkim].

- 1a. Leaf blade broadly ovate, densely spreading villous ..... 49a. subsp. *obtusiloba*
- 1b. Leaf blade reniform-pentagonal, sparsely pubescent.
  - 2a. Leaf blade 3-parted, segments overlapping ..... 49b. subsp. *megaphylla*
  - 2b. Leaf blade 3-sect, segments remote ..... 49c. subsp. *leiophylla*

**49a. *Anemone obtusiloba* subsp. *obtusiloba***

钝裂银莲花(原亚种) dun lie yin lian hua (yuan ya zhong)

*Anemone discolor* Royle; *A. micrantha* Klotzsch; *A. obtusiloba* subsp. *micrantha* (Klotzsch) Ulbrich; *A. obtusiloba* var. *chrysanthia* Ulbrich.

Petiole 3–12 cm; leaf blade 3-sect or 3-parted, broadly ovate, 2–4 × 2–6 cm, densely spreading villous; central segment 3-lobed, rhombic-ovate. Scape 5–20 cm. Involucral bract blade 3-parted, broadly rhombic or cuneate, 1–2 cm. Sepals 5, white, yellow, or blue, 8–12 × 5–8 mm. Fl. May–Jul.

Forests, alpine meadows; 2900–4000 m. SW Sichuan, E and S Xizang [Afghanistan, Bhutan, N India, Kashmir, Mongolia, Myanmar, Nepal, Pakistan, Sikkim].

**49b. *Anemone obtusiloba* subsp. *megaphylla* W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 350. 1980.**

镇康银莲花 zhen kang yin lian hua

Petiole 15–20 cm; leaf blade 3-parted, reniform-pentagonal, 3–6 × 4–10 cm, sparsely pubescent; segments overlapping, central one 3-cleft, broadly rhombic. Scape 25–35 cm. Involucral bract blade 3-lobed, rhombic or rhombic-obovate, 2–3 cm. Sepals 5, blue, 10–15 × 5–10 mm. Fl. Jul.

• Grassy slopes; ca. 3400 m. W Yunnan (Zhenkang Xian).

**49c. *Anemone obtusiloba* subsp. *leiophylla* W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 350. 1980.**

光叶银莲花 guang ye yin lian hua

Petiole 5–15 cm; leaf blade 3-sect, reniform-pentagonal, 1–4 × 2–6 cm, sparsely pubescent; segments remote, central one 3-cleft, broadly rhombic. Scape 8–35 cm. Involucral bract blade 3-dentate or undivided, 1–2 cm. Sepals 5–7, white, 7–12 × 3–7 mm. Fl. May–Jul.

• Forest margins, grassy slopes; 2900–3000 m. NW Yunnan (Gongshan Drung-Nu Zu Zizhixian).

**50. *Anemone subpinnata* W. T. Wang, Acta Phytotax. Sin. 12: 170. 1974.**

近羽裂银莲花 jin yu lie yin lian hua

Leaves 4–7; petiole 2–6 cm × 1–2 mm, villous; leaf blade 3-sect, elliptic-ovate, ca. 2 × 1 cm, densely pubescent, base subcordate or broadly cuneate; central segment petiolulate (petiolule 3–5 mm), 3-sect or 3-parted, rhombic-obovate, margin incised dentate, apex rounded or obtuse, central secondary segment also distinctly petiolulate, 3-parted; lateral segments subsessile, unequally 3-lobed, obliquely cuneate. Scapes 2–5, 3–10 cm, villous; cyme 1-flowered. Involucral bract blade subequally 3-lobed, elliptic-ovate to oblong-ovate, ca. 1 cm; lobes entire or central one 3-dentate, puberulent, apex obtuse. Pedicel 1–4 cm, puberulent. Sepals 5, white, blue, purplish, or violet, elliptic-obovate, 5–8 × 4–6 mm, villous, basal veins 3–5, vein anastomoses absent. Stamens 2–4 mm; filament linear, anther ca. 1 mm, apex rounded. Pistils cylindric, 2.7–3.2 mm; ovary villous; style curved, glabrous.

• Alpine meadows; ca. 3700 m. SW Sichuan (Muli Zang Zu Zizhixian).

**51. *Anemone patula* C. C. Chang ex W. T. Wang, Acta Phytotax. Sin. 12: 169. 1974.**

天全银莲花 tian quan yin lian hua

Leaves 6–9; petiole 3–10 cm × ca. 1 mm, subglabrous; leaf blade 3-sect, orbicular-ovate, 0.5–3.5 × 1–4 cm, sparsely puberulent or glabrescent, base deeply cordate; segments subsessile; central segment 3-lobed, flabellate-rhombic, lobes flabellate-obovate, margin lobulate, lobules narrowly ovate, sometimes denticulate; lateral segments 3-lobed, obliquely flabellate. Scapes 3–6, 5–25 cm, 1-flowered, subglabrous. Involucral bract blade 3-lobed or 3-dentate, rarely undivided, obovate, 1–2 cm, puberulent or subglabrous. Pedicel 2–5 cm, puberulent or subglabrous. Sepals 5(or 6), white

or blue-purple, ovate or broadly obovate,  $4\text{--}12 \times 2\text{--}9$  mm, puberulent (hairs short or long), basal veins 3–7, vein anastomoses absent. Stamens 3–5 mm; filament lanceolate. Pistils 2–4 mm, villous. Fl. Jun–Jul.

• *Abies* forests, thickets, alpine meadows; 3500–4000 m. C and W Sichuan.

- 1a. Scape 10–25 cm; leaf blade  $1\text{--}3.5 \times 1.5\text{--}4$  cm; sepals white or blue-purple,  $8\text{--}12 \times 5\text{--}9$  mm, hairs short ..... 51a. var. *patula*  
1b. Scape 5–10 cm; leaf blade  $0.5\text{--}1 \times 1\text{--}2$  cm; sepals white,  $4\text{--}6 \times 2\text{--}3$  mm, hairs long ..... 51b. var. *minor*

**51a. *Anemone patula* var. *patula***

天全银莲花(原变种) tian quan yin lian hua (yuan bian zhong)

Leaf blade  $1\text{--}3.5 \times 1.5\text{--}4$  cm. Scape 10–25 cm. Sepals white or blue-purple,  $8\text{--}12 \times 5\text{--}9$  mm, hairs short.

• *Abies* forests, alpine meadows; 3500–3800 m. C Sichuan (Li Xian, Tianquan Xian).

**51b. *Anemone patula* var. *minor*** W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 350. 1980.

鸡足叶银莲花 ji zu ye yin lian hua

Leaf blade  $0.5\text{--}1 \times 1\text{--}2$  cm. Scape 5–10 cm. Sepals white,  $4\text{--}6 \times 2\text{--}3$  mm, hairs long.

• Thickets; 3500–4000 m. C and W Sichuan (Baoxing Xian, Jinchuan Xian).

**52. *Anemone rockii*** Ulbrich, Notizbl. Bot. Gart. Berlin-Dahlem 10: 876. 1929.

岷山银莲花 min shan yin lian hua

Leaves 5–15; petiole 5–20 cm  $\times$  ca. 3 mm, sparsely puberulent or glabrescent; leaf blade 3-sect, broadly ovate,  $2.5\text{--}5 \times 2.5\text{--}5$  cm, glabrous or abaxially sparsely puberulent, base cordate; central segment petiolulate (petiolule 1–2 mm), 3-lobed, broadly ovate or rhombic, lobes incised lobulate; lateral segments subsessile, unequally 2- or 3-lobed, obliquely flabellate; lobes and lobules contiguous, overlapping, or remote. Scapes 2–10, 10–30 cm, glabrous or sparsely puberulent; cyme 1-flowered. Involucral bract blade undivided or 3-lobed, obovate, 1–3 cm, margin dentate or rarely entire. Pedicel 2–6(–10) cm, puberulent. Sepals (5 or) 6–9, white, blue, or rarely purplish, oblong to oblong-obovate, 10–20  $\times$  6–12 mm, sparsely puberulent or sometimes glabrous, basal veins 3–5, vein anastomoses solitary or absent. Staminodes sometimes present. Stamens light brown, 4–5 mm; filament linear, 0.3–0.5 mm wide; anther light, narrow, connective dark, narrow. Pistils brown, 2.8–3.5 mm; ovary cylindric, sparsely puberulent; style straight, light. Achene body ovoid, slightly compressed,  $3\text{--}4 \times 1\text{--}1.5$  mm, densely pubescent (hairs ca. 1 mm), subglabrous, or glabrous; ribs ca. 0.1 mm; style almost straight, 1.3–1.4 mm. Fl. Jun–Aug.

Grassy slopes; 2100–4000 m. Gansu, Sichuan, Xizang, Yunnan [Bhutan, Kashmir, Nepal, Sikkim].

1a. Leaf blade lobes and lobules contiguous or overlapping; achene body glabrous or subglabrous ..... 52a. var. *rockii*

1b. Leaf blade lobes and lobules remote; achene body densely pubescent.

2a. Sepals 8 or 9, white ..... 52b. var. *pilocarpa*

2b. Sepals ca. 6, white or blue ..... 52c. var. *multicaulis*

**52a. *Anemone rockii* var. *rockii***

岷山银莲花(原变种) min shan yin lian hua (yuan bian zhong)

*Anemone obtusiloba* D. Don subsp. *rockii* (Ulbrich) Lauener.

Leaf blade lobes and lobules contiguous or overlapping. Sepals 7 or 8, white. Achene body glabrous or subglabrous.

Grassy slopes; 2100–4000 m. Gansu, Sichuan, Xizang, Yunnan [Bhutan, Kashmir, Nepal, Sikkim].

**52b. *Anemone rockii* var. *pilocarpa*** W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 350. 1980.

巫溪银莲花 wu xi yin lian hua

Leaf blade lobes and lobules remote. Sepals 8 or 9, white. Achene body densely pubescent.

• Grassy slopes; 2100–2300 m. NE Sichuan (Chengkou Xian, Wuxi Xian).

**52c. *Anemone rockii* var. *multicaulis*** W. T. Wang, Fl. Reipubl. Popularis Sin. 28: 350. 1980.

多茎银莲花 duo jing yin lian hua

Leaf blade lobes and lobules remote. Sepals ca. 6, white or blue. Achene body densely pubescent.

• Grassy slopes; 2900–3100 m. SW Sichuan (Xichang Shi).

**53. *Anemone geum*** H. Léveillé, Bull. Acad. Int. Géogr. Bot. 24: 25. 1915.

路边青银莲花 lu bian qing yin lian hua

Leaves 5–15, petiole 3–15 cm  $\times$  2–3 mm, villous; leaf blade 3-sect or sometimes 3-parted, ovate,  $2\text{--}5 \times 2\text{--}3$  cm, densely long hairy or sparsely shortly hairy, base subcordate or subtruncate; central segment petiolulate (petiolule 5–10 mm), 3-lobed or undivided, broadly rhombic, longer or much longer than lateral ones (ratio 2 or 3:1); lateral segments petiolulate (petiolule 1–3 mm), 2- or 3-lobed. Scapes 2–5, 5–25 cm, villous or pubescent; cyme 1-flowered. Involucral bract blade undivided or 3-lobed, 1–2 cm, puberulent. Pedicel 1–2(–6) cm, puberulent. Sepals 5(–8), white, yellowish, mauve, or blue, broadly ovate,  $5\text{--}12 \times 4\text{--}9$  mm, abaxially pubescent, basal veins 3(–5), vein anastomoses absent. Stamens light brown, 2–2.8 mm; filament linear-lanceolate, 0.5–1.0 mm wide; anther yellow, narrowly ellipsoid, connective brown, narrow. Staminodes sometimes present. Pistils narrowly ovoid, 2–3 mm, pubescent or glabrous. Achene body ovoid, sometimes slightly compressed,  $3\text{--}4.8 \times 1.6\text{--}2.3$  mm,

without ribs, villous (hairs 0.8–1.3 mm) or sometimes subglabrous, base narrowed; style usually straight, conic, 1.8–2.6 mm. Fl. May–Sep.

Scrub, alpine meadows; 1900–5000 m. Gansu, W Hebei, N Ningxia, Qinghai, Shaanxi, SW Shanxi, Sichuan, S Xinjiang, Xizang, Yunnan [N India, Nepal, Sikkim].

- 1a. Leaf blade densely long hairy, central segment much longer than lateral ones (ratio 3:1) ..... 53a. subsp. *geum*
- 1b. Leaf blade sparsely shortly hairy, central segment longer than lateral ones (ratio 2:1) ..... 53b. subsp. *ovalifolia*

**53a. *Anemone geum* subsp. *geum***

路边青银莲花(原亚种) lu bian qing yin lian hua (yuan ya zhong)

*Anemone bonatiana* H. Léveillé var. *geum* (H. Léveillé)  
H. Léveillé; *A. obtusiloba* D. Don subsp. *ovalifolia* var.  
*geochares* Brühl; *A. obtusiloba* subsp. *geum* (H. Léveillé) Ulbrich; *A. obtusiloba* subsp. *ovalifolia* var. *orthocaulon* Brühl; *A. rupestris* Wallich ex J. D. Hooker & Thomson var. *lobata* Brühl; *A. rupestris* var. *pilosa* C. Marquand & Airy Shaw; *A. wardii* C. Marquand & Airy Shaw.

Leaf blade densely long hairy; central segment much longer than lateral ones (ratio 3:1).

Scrub, alpine meadows; 1900–5000 m. Gansu, W Hebei, N Ningxia, Qinghai, Shaanxi, SW Shanxi, W Sichuan, S Xinjiang, Xizang, NW Yunnan [N India, Nepal, Sikkim].

**53b. *Anemone geum* subsp. *ovalifolia* (Brühl) R. P. Chaudhary, Bot. Zhurn. 73: 1190. 1988.**

疏齿银莲花 shu chi yin lian hua

*Anemone obtusiloba* subsp. *ovalifolia* Brühl, Ann. Roy. Bot. Gard. (Calcutta) 5: 78. 1896; *A. obtusiloba* subsp. *ovalifolia* var. *angustilimba* W. T. Wang; *A. obtusiloba* subsp. *ovalifolia* var. *polysepala* W. T. Wang; *A. ovalifolia* (Brühl) Handel-Mazzetti.

Leaf blade sparsely shortly hairy; central segment longer than lateral ones (ratio 2:1).

Alpine meadows; 4000–5000 m. Gansu, Sichuan, Yunnan [N India, Nepal].

