

A small key example

- 1. Leaves large *A. macrophyllum*
- 1. Leaves small.
 - 2. Flowers large.
 - 3. Capsules large *A. macrospermum*
 - 3. Capsules small *A. microspermum*
 - 2. Flowers small *A. microflorum*

Key for *Allium* species in *Flora of China*

- 1. Leaves 1–3, linear to orbicular-ovate, base usually narrowed into a petiole; ovary base often constricted into a short stipe; ovules 1 per locule.
 - 2. Leaf 1, long petiolate, ovate to broadly elliptic-ovate, base cordate 玉簪叶山葱 *A. funckiiifolium*
 - 2. Leaves 2 or 3.
 - 3. Outer perianth segments narrower than inner ones.
 - 4. Base of leaf blade cuneate, decurrent 茗葱 *A. victorialis*
 - 4. Base of leaf blade rounded to cordate, not decurrent 对叶山葱 *A. listera*
 - 3. Outer perianth segments as wide as or wider than inner ones.
 - 5. Scape shorter than leaves, 2–5 cm, covered with leaf sheaths for 3/4–4/5 its length 短葶山葱 *A. nanodes*
 - 5. Scape longer than leaves, 10–60 cm, covered with leaf sheaths only at base.
 - 6. Leaves lanceolate-oblong to ovate-oblong, base rounded to cordate, petiole distinct 卵叶山葱 *A. ovalifolium*
 - 6. Leaves linear, linear-lanceolate, elliptic-lanceolate, elliptic-oblong, or rarely narrowly elliptic, base narrowed, petiole indistinct 太白山葱 *A. prattii*
 - 1. Leaves several, lorate or linear, cross section semiterete or terete, solid or fistulose, base usually not narrowed into a petiole; ovules 2 to several per locule; if leaf base narrowed into a petiole or ovules 1 per locule then bulb tunic never distinctly reticulate.
 - 7. Roots thick and fleshy, sometimes subtuberos; leaves with distinct midvein; scape usually 2- or 3-angled; ovules 1 or 2 per locule.
 - 8. Ovules 1 per locule (in *A. omeiense* a few ovaries in same umbel with 2 ovules per locule).
 - 9. Umbel laxly fascicled, few flowered; pedicels unequal; style much shorter than ovary; stigma 3-cleft 三柱韭 *A. trifurcatum*
 - 9. Umbel hemispheric to globose, many flowered; pedicels equal; style equaling or longer than ovary; stigma entire, punctiform.
 - 10. Scape terminal 灌县韭 *A. guanxianense*
 - 10. Scape lateral.
 - 11. Leaves lanceolate to linear-lanceolate, distinctly contracted at base; filaments longer than perianth segments 乡城韭 *A. xiangchengense*
 - 11. Leaves linear or lorate to lorate-oblong, not contracted at base; filaments shorter than to subequaling perianth segments.

12. Perianth segments 4–7.5 mm, free; filaments slightly shorter than to subequaling perianth segments 宽叶韭 *A. hookeri*
12. Perianth segments 9–11 mm, connate at base into a tube ca. 1 mm; filaments ca. 1/2 as long as perianth segments 峨眉韭 *A. omeiense*
8. Ovules 2 per locule.
 13. Perianth yellow, segments united for ca. 1 mm at base 剑川韭 *A. chienchuanense*
 13. Perianth white, red, purple-red, or dark purple, segments free.
 14. Filaments connate into a tube for 2/3–3/4 their length 杯花韭 *A. cyathophorum*
 14. Filaments connate only at base.
 15. Perianth white, segments lanceolate, apex acuminate or irregularly 2-lobed 粗根韭 *A. fasciculatum*
 15. Perianth red, purple-red, or dark purple, rarely whitish, segments oblong, narrowly so, or ovate-oblong, apex retuse, truncate, or obtuse.
 16. Perianth stellately spreading, reflexed after anthesis, inner and outer segments similar; pedicels straight 多星韭 *A. wallichii*
 16. Perianth campanulate, not reflexed after anthesis, inner segments somewhat longer and narrower than outer ones; pedicels nodding at apex 大花韭 *A. macranthum*
7. Roots thin; leaves without distinct midvein; scape terete or several angled; ovules 2 to several per locule.
 17. Bulb usually solitary, globose, ovoid-globose, or ovoid (if cylindric to ovoid-cylindric, then leaves thick, terete, and fistulose); rhizomes obscure.
 18. Leaves usually thick, terete, fistulose, smooth.
 19. Bulb flattened globose, globose, or ovoid-globose, rarely cylindric with thickened base; base of inner filaments 1-toothed on each side (if entire, then scape often undeveloped).
 20. Scape solid 实葶葱 *A. galanthum*
 20. Scape fistulose.
 21. Scape developed; plants propagated by seeds or bulblets 洋葱 *A. cepa*
 21. Scape usually undeveloped; plants propagated by bulbs.
 22. Bulb ovoid-globose to ovoid 香葱 *A. cepiforme*
 22. Bulb narrowly ovoid or cylindric-ovoid 洋葱 *A. cepa*
 19. Bulb cylindric to ovoid-cylindric; filaments entire.
 23. Filaments shorter than perianth segments, connate into a tube for 1/3–3/4 their length 蓝苞葱 *A. atrosanguineum*
 23. Filaments shorter or longer than perianth segments, connate only at base.
 24. Perianth pale red, pale purple, or purple-red.
 25. Pedicels unequal, shorter than to nearly as long as perianth; filaments 1/3–1/2(–2/3) as long as perianth segments 北葱 *A. schoenoprasum*
 25. Pedicels subequal, 1.5–3 × as long as perianth; filaments slightly shorter than to longer than perianth segments.
 26. Perianth rose pink or dark pink; filaments slightly shorter than to equaling perianth segments 马葱 *A. maximowiczii*
 26. Perianth pale purple; filaments longer than perianth segments 硬皮葱 *A. ledebourianum*
 24. Perianth yellow to white.
 27. Leaves and scape ± thin, to 5 mm thick; perianth yellow or pale yellow ... 野葱 *A. chrysanthum*

27. Leaves and scape robust, more than 5 mm thick; perianth white or yellowish white.
28. Bulb ovoid-cylindric, robust, tunic red-brown, thinly leathery; perianth yellowish white; pedicels slightly shorter than to $2 \times$ as long as perianth 阿尔泰葱 *A. altaicum*
28. Bulb cylindric, tunic usually white, rarely light red-brown, membranous; perianth white; pedicels $2-3 \times$ as long as perianth 葱 *A. fistulosum*
18. Leaves slender, flat, triangular-flat, semiterete, or rarely terete, fistulose.
29. Ovules 4 or more per locule.
30. Perianth segments united into a tube proximally.
31. Scape (15-)20-50 cm; pedicels (4.5-)7-11 cm; perianth segments 7-10 mm; ovules (5 or)6(-8) per locule 长梗合被韭 *A. neriniflorum*
31. Scape 15-30(-40) cm; pedicels 0.8-4(-7) cm; perianth segments 5-7(-8) mm; ovules (3 or)4 per locule, rarely 1 or 2 locules with 5 or 6 ovules.
32. Perianth red to purple 合被韭 *A. tubiflorum*
32. Perianth white 齿棱茎合被韭 *A. inutile*
30. Perianth segments free.
33. Filaments connate and adnate to perianth segments for $1/2-2/3$ their length.
34. Leaves linear, 4-6(-8) mm wide; perianth cupular, segments broadly elliptic, $8-11 \times 4-4.5$ mm 高地蒜 *A. oreophilum*
34. Leaves broadly linear, (5-)10-25 mm wide; perianth narrowly campanulate, segments linear-oblong, $7-10(-15) \times 2.5-3$ mm 伊犁蒜 *A. winklerianum*
33. Filaments connate and adnate to perianth segments only at base.
35. Leaves 1(or 2); perianth segments 6-6.5 mm, without strong midvein; ovary stipitate 多籽蒜 *A. fetisowii*
35. Leaves (1 or)2 or 3; perianth segments 4.5-5.5 mm, with strong midvein; ovary sessile.
36. Perianth red to purple-red 健蒜 *A. robustum*
36. Perianth white or whitish lilac to lilac-pink.
37. Leaves 1-1.5(-2) cm wide, apex gradually attenuate 郁金香 *A. tulipifolium*
37. Leaves 0.7-1.5 cm wide, apex acute 新疆蒜 *A. roborowskianum*
29. Ovules 2 per locule.
38. Inner filaments 1-toothed on each side at base, apex of tooth long filiform and longer than anther-bearing cusp of filament.
39. Umbel with flowers only; filaments longer than perianth segments 韭葱 *A. porrum*
39. Umbel with both flowers and bulblets; filaments shorter than perianth segments ... 蒜 *A. sativum*
38. Inner filaments entire or, if 1-toothed on each side, apex of tooth not filiform and never longer than anther-bearing cusp of filament.
40. Perianth blue, usually becoming bluish purple when dried.
41. Leaves flat, abaxially 1-angled, usually twisted when dried 棱叶薤 *A. caeruleum*
41. Leaves semiterete, not twisted when dried 知母薤 *A. caesium*
40. Perianth white, pale red, red, purple-red, purple, or pale green.
42. Filaments not more than $2/3$ as long as perianth segments.
43. Pedicels ca. $3 \times$ as long as perianth 高原薤 *A. jacquemontii*
43. Pedicels shorter than or subequaling perianth.

44. Scape 10–15(–20) cm; perianth segments obtuse or attenuate at apex; broadened part of inner filaments with 1 small tooth on each side 类北薹 *A. schoenoprasoides*
44. Scape (15–)25–40 cm; perianth segments acute at apex; broadened part of inner filaments entire 赛里木薹 *A. sairamense*
42. Filaments more than 2/3 as long as perianth segments.
45. Plants dioecious; female flowers 1 per scape; male flowers 2–4(or 5) per scape 单花薹 *A. monanthum*
45. Plants not dioecious; flowers bisexual, more than 2 per scape.
46. Pedicels ebracteolate or only a few bracteolate at base.
47. Pedicels equaling or slightly longer than perianth; ovary without concave nectaries at base; filaments 2/3–3/4 as long as perianth segments 灰皮薹 *A. grisellum*
47. Pedicels more than 2 × as long as perianth; ovary with concave nectaries at base; filaments equaling or longer than perianth segments.
48. Leaves flat; pedicels unequal; inner filaments with a rounded, irregularly denticulate lobe on each side near base 松潘薹 *A. songpanicum*
48. Leaves semiterete; pedicels equal or subequal; inner filaments entire or with an entire tooth on each side near base.
49. Ovary tuberculate; style slightly exerted 小山薹 *A. pallasii*
49. Ovary smooth; style conspicuously exerted.
50. Perianth pink to pale purple-red; filaments slightly longer than perianth segments 真籽薹 *A. eusperma*
50. Perianth white; filaments ca. 2 × as long as perianth segments 茂汶薹 *A. maowenense*
46. All pedicels subtended by bracteoles.
51. Bulb tunic leathery, splitting along veins; perianth segments pale green with green midvein 沙地薹 *A. sabulosum*
51. Bulb tunic membranous or papery, not splitting, or only apex splitting and becoming fibrous or reticulate; perianth segments white, pale red, red, or purple-red to dark purple, rarely pale green.
52. Bulb ovoid or narrowly so.
53. Leaves 3–5-angled in cross section, fistulose; scape lateral; base of inner filaments 1-toothed on each side 蒿头 *A. chinense*
53. Leaves semiterete or triangular in cross section, fistulose at least basally; base of inner filaments entire or occasionally 1-toothed on each side.
54. Leaves 1–2 mm wide, semiterete; perianth white or pale red, sometimes greenish.
55. Filaments slightly longer than to 1.5 × as long as perianth segments; ovary with concave nectaries at base covered by hoodlike projections ... 白花薹 *A. yanchiense*
55. Filaments shorter or slightly longer than perianth segments; ovary without concave nectaries at base 尤尔都斯薹 *A. juldusicola*
54. Leaves 2–5 mm wide, 3-angled or -keeled to obscurely 3-angled; perianth red to purple or lilac-pink to red-violet.
56. Bulb tunic thinly leathery, split and becoming fibrous and subreticulate, rarely subentire; leaves keeled to obscurely 3-angled, rarely subfistulose near base; umbel

- globose, densely many flowered; perianth lilac-pink to red-violet 朝鲜薤 *A. sacculiferum*
56. Bulb tunic membranous to scarious or subpapery, sometimes apex lacinate to fibrous; leaves 3-angled, subfistulose; umbel subfascicled to globose, laxly many flowered; perianth red to purple 球序薤 *A. thunbergii*
52. Bulb ovoid-globose to subglobose (if ovoid, then ovary with concave nectaries at base without hoodlike projections).
57. Pedicels equaling to slightly longer than perianth 头花薤 *A. glomeratum*
57. Pedicels more than $2 \times$ as long as perianth.
58. Leaves 0.5–1.5 mm wide, terete; scape covered with leaf sheaths for $1/3$ – $1/2$ its length; ovary tuberculate 迷人薤 *A. delicatulum*
58. Leaves 1–5 mm wide, flat, semiterete, or triangular-semiterete; scape covered with leaf sheaths for less than $1/3$ its length; ovary smooth.
59. Leaves flat; umbel without bulblets; filaments 1.5 – $2 \times$ as long as perianth segments 唐古薤 *A. tanguticum*
59. Leaves semiterete or triangular-semiterete; umbel \pm with bulblets; filaments shorter than perianth segments 薤白 *A. macrostemon*
17. Bulbs usually several in a cluster, cylindric, conical, or ovoid-cylindric, rarely ovoid; rhizomes well developed.
60. Bulb tunic reticulate, subreticulate, or laxly fibrous.
61. Perianth pale blue to blue or purplish blue.
62. Filaments shorter than perianth segments.
63. Perianth segments narrowly oblong to narrowly ovate-oblong, 11–14(–17) mm, margin entire; filaments usually ca. $4/5$ as long as perianth segments; style usually 2 – $3 \times$ as long as ovary 蓝花韭 *A. beesianum*
63. Perianth segments ovate or ovate-oblong, 6–10 mm, at least margin of inner ones irregularly denticulate; filaments usually $1/2$ – $2/3$ as long as perianth segments; style shorter than or subequaling ovary.
64. Perianth segments acuminate at apex, equal, irregularly denticulate at margin, rarely outer ones entire; leaves abaxially keeled, usually twisted when dry 齿被韭 *A. yuanum*
64. Perianth segments obtuse at apex, inner ones longer and wider than outer, only inner ones irregularly denticulate at margin; leaves flat 高山韭 *A. sikkimense*
62. Filaments longer than perianth segments.
65. Leaves semiterete 天蓝韭 *A. cyaneum*
65. Leaves flat.
66. Pedicels extremely unequal, 2 – $4 \times$ as long as perianth 异梗韭 *A. heteronema*
66. Pedicels subequal, 1 – $2 \times$ as long as perianth.
67. Bulb tunic reticulate; umbel laxly few flowered; pedicels 1.5 – $2 \times$ as long as perianth; base of inner filaments with 1 short tooth on each side, apex of tooth entire 疏花韭 *A. henryi*
67. Bulb tunic subreticulate; umbel densely many flowered; pedicels 1 – $1.5 \times$ as long as perianth; base of inner filaments with 1 long tooth on each side, apex of tooth sometimes denticulate 雾灵韭 *A. stenodon*
61. Perianth white, pale red, purple-red, purple, dark purple, or yellow.

68. Filaments more than $1.3 \times$ as long as perianth segments.
69. Perianth segments basally united for 1.5–2 mm into a short tube; filaments basally connate for 1.5–2 mm and adnate to perianth segments 管花韭 *A. siphonanthum*
69. Perianth segments free; filaments connate only at base.
70. Bulb tunic usually red, distinctly reticulate; inner filaments broadened for $1/3$ – $1/2$ their length; ovary without concave nectaries at base 青甘韭 *A. przewalskianum*
70. Bulb tunic never red, reticulate or fibrous; inner filaments broadened for ca. $1/3$ their length; ovary with concave nectaries at base.
71. Perianth pale red or purple-red to purple.
72. Bulb tunic fibrous, sometimes subreticulate; pedicels ebracteolate 多叶韭 *A. plurifoliatum*
72. Bulb tunic reticulate; pedicels bracteolate at base.
73. Leaves semiterete 细叶北韭 *A. clathratum*
73. Leaves flat.
74. Inner filaments entire 单丝辉韭 *A. schrenkii*
74. Inner filaments with 1 or 2 teeth on each side.
75. Perianth segments with red, slender midvein or without midvein; stigma punctiform 北韭 *A. lineare*
75. Perianth segments with purple midvein; stigma capitate or subglobose.
76. Perianth pale lilac to pinkish lilac 丽韭 *A. splendens*
76. Perianth pink to pink-red 马克韭 *A. maackii*
71. Perianth white to pale yellow.
77. Leaves 2–7 mm wide, flat; teeth of inner filaments entire 新疆韭 *A. flavidum*
77. Leaves 1–5 mm wide, semiterete, fistulose; teeth of inner filaments sometimes irregularly 2–4-denticulate.
78. Leaves equaling to distinctly longer than scape; pedicels ebracteolate 阿拉善韭 *A. flavovirens*
78. Leaves shorter than scape; pedicels bracteolate at base 白头韭 *A. leucocephalum*
68. Filaments less than $1.3 \times$ as long as perianth segments.
79. Perianth yellow, later becoming red; filaments connate into tube for $3/5$ – $4/5$ their length 管丝葱 *A. semenovii*
79. Perianth not yellow; filaments connate only basally or for $1/6$ – $1/2$ their length.
80. Inner filaments toothed at base.
81. Filaments ca. $1/2$ as long as perianth segments 梭沙韭 *A. forrestii*
81. Filaments slightly shorter than or equaling perianth segments.
82. Leaves 3–5 mm wide, flat.
83. Filaments slightly longer than perianth segments; stigma punctiform 直立韭 *A. amphibolum*
83. Filaments slightly shorter than or equaling perianth segments 辉韭 *A. strictum*
82. Leaves 0.25–1 mm wide, semiterete.
84. Bulb tunic subreticulate; filaments connate into a tube for $1/6$ – $1/2$ their length, tube adnate to perianth segments for $1/3$ – $1/2$ its length.

85. Perianth segments 6–8.5 mm; filaments connate for $1/3$ – $1/2$ their length 紫花韭 *A. subangulatum*
85. Perianth segments 3–6 mm; filaments connate for $1/6$ – $1/3$ their length 碱韭 *A. polyrhizum*
84. Bulb tunic distinctly reticulate; filaments connate only at base.
86. Pedicels bracteolate at base; perianth pale purple to purple; ovary without concave nectaries at base 贺兰韭 *A. eduardii*
86. Pedicels ebracteolate; perianth pale red; ovary with concave nectaries at base covered by hoodlike projections 针叶韭 *A. aciphyllum*
80. Inner filaments entire at base.
87. Scape covered with leaf sheaths for $1/4$ – $1/2$ its length.
88. Pedicels subequal; leaves 2–5 mm wide 辉韭 *A. strictum*
88. Pedicels unequal; leaves 0.5–1 mm wide.
89. Bulb tunic distinctly reticulate 荒漠韭 *A. tekesicola*
89. Bulb tunic subreticulate.
90. Bulb tunic brown; inner filaments basally ca. $2 \times$ as wide as outer ones, distally abruptly subulate; ovary with concave nectaries at base covered by hoodlike projections 褐皮韭 *A. korolkowii*
90. Bulb tunic yellowish brown; inner filaments basally ca. $3 \times$ as wide as outer ones, distally gradually attenuate; ovary with small, concave nectaries at base not covered by hoodlike projections 西疆韭 *A. teretifolium*
87. Scape covered with leaf sheaths only at base.
91. Bulb tunic reticulate or subreticulate; perianth white to pale red.
92. Inner filaments broadly triangular, basally ca. $2 \times$ as wide as outer ones; perianth segments with dark purple midvein 滩地韭 *A. oreoprasum*
92. Inner filaments narrowly triangular, basally only slightly wider than outer ones; perianth segments without dark purple midvein.
93. Scape 5–15 cm; stigma slightly 3-cleft 雪韭 *A. humile*
93. Scape 25–60 cm; stigma punctiform.
94. Leaves flat, solid; perianth segments white, usually with green midvein 韭 *A. tuberosum*
94. Leaves triangular, abaxially keeled, fistulose; perianth segments white, rarely pale red, usually with pale red midvein 野韭 *A. ramosum*
91. Bulb tunic fibrous or subreticulate at base; perianth dark purple, purple-red, or pale red.
95. Inner filaments not broadened at base.
96. Leaves 8–10 mm wide 宽叶滇韭 *A. rhynchogynum*
96. Leaves 1–3 mm wide.
97. Filaments $1/2$ – $2/3$ as long as perianth segments; ovary constricted at apex, without concave nectaries at base 滇韭 *A. mairei*
97. Filaments slightly shorter or longer than perianth segments; ovary not constricted at apex, with concave nectaries at base covered by narrow, hoodlike projections 昌都韭 *A. changduense*
95. Inner filaments broadened at base.

98. Leaves 1.5–3(–5) mm wide, flat; perianth purple to dark purple 梭沙韭 *A. forrestii*
98. Leaves 0.3–1.5 mm wide, semiterete to terete; perianth pale red to purple-red.
99. Leaves distinctly longer than scape; umbel laxly few flowered; perianth segments 3–3.5 mm; ovary with concave nectaries at base 鄂尔多斯韭 *A. alabasicum*
99. Leaves shorter than scape; umbel densely many flowered; perianth segments 6–9 mm; ovary without concave nectaries at base 蒙古韭 *A. mongolicum*
60. Bulb tunic entire, never reticulate or only apical part becoming fibrous.
100. Filaments shorter than perianth segments, never more than 4/5 as long as perianth segments.
101. Perianth blue.
102. Perianth segments narrowly oblong to narrowly ovate-oblong, 11–14(–17) mm, margin entire; filaments usually ca. 4/5 as long as perianth segments; style usually 2–3 × as long as ovary 蓝花韭 *A. beesianum*
102. Perianth segments ovate or ovate-oblong, 6–10 mm, margin of at least inner ones irregularly denticulate; filaments usually 1/2–2/3 as long as perianth segments; style usually shorter than or subequaling ovary.
103. Perianth segments acuminate at apex, equal, irregularly denticulate at margin, rarely outer ones entire; leaves abaxially keeled, usually twisted when dry 齿被韭 *A. yuenum*
103. Perianth segments obtuse at apex, inner ones longer and wider than outer, only inner ones irregularly denticulate at margin; leaves flat 高山韭 *A. sikkimense*
101. Perianth white, pale red, purple-red, pale purple, purple, yellow, or bright yellow.
104. Perianth pale or bright yellow.
105. Bulb cylindric; leaves slightly falcate, usually ca. 1/2 as long as or rarely subequaling scape, flat 折被韭 *A. chrysocephalum*
105. Bulb ovoid-globose to ovoid; leaves subequaling scape, semiterete 金头韭 *A. herderianum*
104. Perianth white, pale red, purple-red, pale purple, or purple.
106. Filaments connate into an urceolate tube for 3/4–4/5 their length ... 坛丝韭 *A. weschniakowii*
106. Filaments connate only at base or for 1/3–1/2 their length.
107. Bulb tunic leathery; pedicels bracteolate at base; ovary with concave nectaries at base covered by hoodlike projections.
108. Bulb tunic brown, apex becoming fibrous and somewhat subreticulate; pedicels unequal, 2–3 × as long as perianth in fruit 褐皮韭 *A. korolkowii*
108. Bulb tunic light yellowish brown, apex laciniate; pedicels subequal, 1–2 × as long as perianth in fruit 丝叶韭 *A. setifolium*
107. Bulb tunic membranous, papery, or thinly leathery; pedicels ebracteolate; ovary usually without concave nectaries at base (but present in *A. pevtzovii*).
109. Perianth segments 2.8–5 mm, apex of inner ones truncate or rounded-truncate.
110. Pedicels unequal, 1.5–3.5 cm; perianth segments 3.9–5 mm 矮韭 *A. anisopodium*
110. Pedicels subequal, 0.5–1.5 cm; perianth segments 2.8–4.2 mm.
111. Bulb tunic laciniate; umbel hemispheric to globose, densely many flowered 雅韭 *A. elegantulum*
111. Bulb tunic splitting at apex; umbel hemispheric to fascicled, laxly flowered 细叶韭 *A. tenuissimum*
109. Perianth segments 6–18 mm, apex of inner ones obtuse or acuminate.

112. Inner filaments ovate at base, 1-toothed on each side; ovary with concave nectaries at base 昆仑韭 *A. pevtzovii*
112. Inner filaments subulate to narrowly ovate at base, entire; ovary without concave nectaries at base.
113. Leaves 1.5–4 mm wide, flat; perianth segments 13–18 mm; filaments ca. 1/2 as long as perianth segments, all subulate 钟花韭 *A. kingdonii*
113. Leaves 0.5–1 mm wide, semiterete; perianth segments 6–9 mm; filaments 2/3–3/4 as long as perianth segments, inner ones wider than outer.
114. Bulbs densely clustered; bulb tunic papery, apex becoming fibrous; pedicels ca. 2 × as long as perianth; perianth segments ovate-oblong, 7–9 × 2.5–3 mm; broadened base of inner filaments narrowly triangular 永登韭 *A. yongdengense*
114. Bulbs laxly clustered; bulb tunic membranous, lacinate; pedicels 1–1.5 × as long as perianth; perianth segments elliptic to ovate, 6–7 × 3–4 mm; broadened base of inner filaments narrowly ovate 疏生韭 *A. caespitosum*
100. Filaments slightly shorter to longer than perianth segments.
115. Leaves flat or keeled abaxially.
116. Bulbs attached to a stout, horizontal or oblique rhizome; scape usually 2-angled.
117. Leaves abaxially keeled; ovary with concave nectaries at base covered by hoodlike projections 泰山韭 *A. taishanense*
117. Leaves flat; ovary without concave nectaries at base.
118. Perianth white to yellow; pedicels ebracteolate 冀韭 *A. chiwui*
118. Perianth pale red or pale purple to purple-red; pedicels bracteolate at base.
119. Leaves straight or spirally tortuous, (1.5–)2–6 mm wide.
120. Leaves straight, 1.5–4 mm wide 岩韭 *A. spurium*
120. Leaves spirally tortuous, 4–6 mm wide 扭叶韭 *A. spirale*
119. Leaves straight or slightly falcate, 6–15 mm wide.
121. Inner filaments entire at base 山韭 *A. senescens*
121. Inner filaments 1-toothed on each side at base 齿丝山韭 *A. nutans*
116. Bulbs attached to a vertical rhizome; scape terete.
122. Perianth yellowish green to pale yellow.
123. Scape covered with leaf sheaths for ca. 1/2 its length; pedicels 2–4 × as long as perianth, bracteolate at base 高葶韭 *A. obliquum*
123. Scape covered with leaf sheaths at base only; pedicels 1–1.5 × as long as perianth, ebracteolate.
124. Inner filaments entire at base; umbel globose, densely many flowered; leaves 3–8 mm wide 野黄韭 *A. rude*
124. Inner filaments 1-toothed on each side at base; umbel laxly flowered; leaves 2–3 mm wide 矮齿韭 *A. brevidentatum*
122. Perianth white, pale red, purple-red, purple, or blue.
125. Inner filaments with 1 irregularly denticulate tooth on each side at base; ovary with concave nectaries at base covered by hoodlike projections.
126. Leaves broadly linear to linear-lanceolate, 5–23 mm wide; spathe with a long beak sometimes to 7 cm; perianth white 天蒜 *A. paepalanthoides*

126. Leaves linear, 2–6(–8) mm wide; spathe with a short beak; perianth pale red, pale purple, or purple 多叶韭 *A. plurifoliatum*
125. Inner filaments entire at base or, if toothed, teeth never denticulate; ovary with concave nectaries at base not covered by hoodlike projections.
127. Spathe with long beak 条叶长喙韭 *A. kurssanovii*
127. Spathe with short beak.
128. Bulb tunic blackish gray to black, papery or membranous.
129. Leaves straight; perianth pink or pinkish lilac; ovary with concave nectaries at base 宽苞韭 *A. platyspathum*
129. Leaves falcate; perianth white; ovary without concave nectaries at base 帕里韭 *A. phariense*
128. Bulb tunic red-brown or brown to yellowish brown, leathery or thinly so.
130. Leaves 1–1.5(–3) mm wide, margin scabrous-denticulate; ovary without concave nectaries at base 草地韭 *A. kaschianum*
130. Leaves 2–17 mm wide, margin smooth; ovary with concave nectaries at base.
131. Bulb tunic red-brown, lustrous 北疆韭 *A. hymenorhizum*
131. Bulb tunic brown to yellowish brown, dull.
132. Leaves usually falcate; inner filaments broadened at base 镰叶韭 *A. carolinianum*
132. Leaves usually not falcate; inner filaments not broadened at base 白韭 *A. blandum*
115. Leaves semiterete or terete, solid or fistulose, adaxially channeled.
133. Inner filaments obtusely 1-toothed on each side at base.
134. Perianth white or pale yellow; style conspicuously exserted; ovary with concave nectaries at base 阿拉善韭 *A. flavovirens*
134. Perianth red, pale purple-red, or purple-red; style not exserted; ovary without concave nectaries at base.
135. Inner filaments broadened for ca. 4/5 their length 砂韭 *A. bidentatum*
135. Inner filaments broadened for ca. 1/2 their length 短齿韭 *A. dentigerum*
133. Inner filaments entire at base.
136. Beak of spathe several times as long as limb.
137. Perianth segments pale yellow with green midvein 石坡韭 *A. petraeum*
137. Perianth segments purple-red to pale red, rarely white, with dark midvein 长喙韭 *A. saxatile*
136. Beak of spathe shorter than or equaling limb.
138. Perianth white, pale yellow, or greenish yellow.
139. Leaves solid, margin ciliate-denticulate 天山韭 *A. tianschanicum*
139. Leaves fistulose, margin smooth.
140. Bulb tunic red-brown, lustrous; scape solid; pedicels bracteolate at base 黄花韭 *A. condensatum*
140. Bulb tunic light brown to brown, dull; scape fistulose; pedicels ebracteolate 西川韭 *A. xichuanense*
138. Perianth pale red, red, pale purple, or purple.

141. Pedicels bracteolate at base.
142. Ovary with longitudinally convex nectaries along septa; nectary pit at ovary base open
..... 蜜囊韭 *A. subtilissimum*
142. Ovary without nectaries or only with concave nectaries at base.
143. Bulbs attached to a robust, horizontal rhizome; filaments equaling or slightly longer than perianth segments; ovary without concave nectaries 蒙古野韭 *A. prostratum*
143. Bulbs attached to vertical rhizome; filaments $1.25-2 \times$ as long as perianth segments; ovary with concave nectaries.
144. Bulb tunic red-brown, lustrous, scarious to subleathery; leaves 2–3 mm wide, margin smooth 长柱韭 *A. longistylum*
144. Bulb tunic brown, dull, leathery; leaves 0.5–2 mm wide, margin ciliate- or scabrous-denticulate.
145. Bulb tunic leathery, entire or lacinate at apex; ovary with concave nectaries covered by hoodlike projections 石生韭 *A. caricoides*
145. Bulb tunic thinly leathery to papery, splitting; ovary with concave nectaries not covered by hoodlike projections.
146. Bulbs to 10 cm; tunic yellowish brown; filaments ca. $1/2$ as long as perianth segments 大鳞韭 *A. megalobulbon*
146. Bulbs shorter; tunic brown; filaments $1.25-1.5 \times$ as long as perianth segments
..... 天山韭 *A. tianschanicum*
141. Pedicels ebracteolate.
147. Inner filaments conspicuously broadly ovate or ovate-oblong at base.
148. Bulb tunic grayish white, sometimes reddish; pedicels $2-3 \times$ as long as perianth; perianth purple-red; style slightly longer than ovary 短齿韭 *A. dentigerum*
148. Bulb tunic brown; pedicels shorter than or equaling perianth; perianth pale red; style shorter than ovary 砂韭 *A. bidentatum*
147. Inner filaments subulate to narrowly triangular at base, gradually attenuate toward apex.
149. Scape covered with leaf sheaths for $1/3-1/2$ its length; leaves 1 or 2, margin smooth; perianth pink 少花葱 *A. oliganthum*
149. Scape covered with leaf sheaths only at base; leaves more than 3, margin scabrid; perianth pale purple or red-purple.
150. Inner perianth segments irregularly denticulate at distal margin and apex; style exserted 蒙古野韭 *A. prostratum*
150. Inner perianth segments entire; style not exserted 红花韭 *A. rubens*