
*粉条儿菜属* fen tiao er cai shu

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**Stachyopogon** Klotzsch.

Herbs perennial. Indumentum (if present) usually glandular. Roots usually fibrous, sometimes thickened and fleshy, or a mixture of both. Rhizome short, rarely cormlike. Leaves basal, tufted, grasslike, lanceolate to linear, with a conspicuous midvein. Scape simple, erect, usually with a few small, bractlike leaves. Inflorescence a terminal raceme, densely capitate or shortly cylindric to laxly elongate, sometimes viscid; rachis pubescent, puberulent, or glabrous. Flowers bisexual, small, distinctly pedicellate or subsessile. Pedicel bearing a bract and bracteole toward either base or apex, pubescent, puberulent, or glabrous; bracteole similar to bract but smaller. Perianth 6-lobed distally, pubescent, puberulent, or glabrous; tube proximally adnate to ovary; lobes erect, spreading, recurved, or revolute. Stamens 6; filaments short; anthers basifixed. Ovary semi-inferior, 3-loculed; ovules many per locule. Style simple, sometimes indistinct; stigma obscurely 3-lobed. Fruit a loculicidal capsule enveloped by persistent perianth, terminating in persistent style and stigma. Seeds numerous, brown, fusiform, to 1.5 mm.

Twenty-one species: Bhutan, China, India, Indonesia, Japan, Kashmir, Korea, Malaysia, Myanmar, Nepal, Philippines, Sikkim; E North America; 15 species (nine endemic) in China.

In measurements given in this account, the scape includes the raceme, the flower includes the pedicel, and the capsule includes the persistent style and stigma.

1a. Perianth pubescent, sometimes sparsely or minutely so.

2a. Leaves 1–1.5 cm wide; perianth 7–10 mm ................................................................. 15. *A. megalantha*

2b. Leaves less than 1 cm wide; perianth less than 7 mm.

3a. Bracts 2–5 × flower length ........................................................................................................ 14. *A. glandulifera*

3b. Bracts shorter than or subequaling flower length, sometimes a few bracts near base of raceme to 2 × flower length.

4a. Flowers usually subsessile, pedicels absent to 1(–2) mm, bract and bracteole borne on distal 1/2 of pedicel (often near apex); perianth lobes linear-lanceolate or narrowly oblong-lanceolate to linear; capsule turbinate, oblong-ovoid, obvoid, or ovoid.

5a. Capsule turbinate, oblong-ovoid, or obvoid, distinctly angular, 3–5 × 2–3 mm, abruptly contracted distally when dehisced; leaves 2–4(–5) mm wide ...................................................... 2. *A. spicata*

5b. Capsule ovoid, not angular, 4–6 × 3–4.5 mm, not or only slightly contracted distally when dehisced; leaves (2–)3–5(–8) mm wide ......................................................................................... 3. *A. stenoloba*

4b. Flowers distinctly pedicellate, pedicels 0.5–3.5 mm, bract and bracteole borne on proximal 1/2 of pedicel (often near base); perianth lobes ovate to lanceolate; capsule subglobose.

6a. Leaves 1–5, laxly tufted; rhizome cormlike, 3–7 mm in diam. ........................................... 13. *A. scopulorum*

6b. Leaves numerous, densely tufted; rhizome not cormlike.

7a. Perianth lobes oblong-lanceolate, 2–3 mm ....................................................................... 11. *A. pedicellata*

7b. Perianth lobes ovate, ca. 1 mm ........................................................................................ 12. *A. yaanica*

1b. Perianth glabrous, rarely papillose.

8a. Raceme rachis and pedicels glabrous; bract and bracteole borne on proximal 1/2 of pedicel (often near base).

9a. Raceme covered with viscid secretion; perianth tube urceolate, strongly constricted at apex, lobes erect ...... 1. *A. glabra*

9b. Raceme not covered with viscid secretion; perianth tube broadly funnelform, lobes strongly recurved or revolute.

10b. Rhizome surrounded by mass of fibers from disintegrated leaf bases; capsule with persistent stigma conspicuously thickened and capitate ................................................................. 5. *A. gracilis*

10a. Rhizome not surrounded by mass of fibers but sometimes by persistent, dead leaves; capsule with persistent stigma not or only slightly thickened ........................................................................ 6. *A. cinerascens*

8b. Raceme rachis and pedicels pubescent or puberulent; bract and bracteole usually borne on distal 1/2 of pedicel (often near apex).

11a. Rhizome often surrounded by mass of fibers from disintegrated leaf bases; roots thickened, fleshy; leaves usually rather few (5–10) and laxly tufted; capsule ovoid-ellipsoid or ovoid-conical ............... 7. *A. pauciflora*

11b. Rhizome not surrounded by mass of fibers; roots fibrous; leaves numerous and densely tufted; capsule narrowly ovoid to subglobose.

12a. Raceme densely capitate or oblong-capitate; bract and bracteole borne on proximal 1/2 of pedicel

A. foliata


Hypoxis spicata Thunberg in Murray, Syst. Veg., ed. 14, 326, 1784; Aletris japonica Lambert (1811), nom. illeg. (including Hypoxis spicata), not Houttuyn (1780) nor Thunberg (1780); A. spicata var. micrantha Satake.

Leaves numerous, densely tufted, linear, 5–30 cm × 2–4 (–5) mm. Scape 15–70 cm. Raceme 5–35 cm, laxly 10–80-flowered; rachis densely pubescent. Flowers subsessile; pedicel absent to 1(–2) mm, densely pubescent; bract and bracteole borne on distal part of pedicel, linear-lanceolate, proximally pubescent; bract 4–8 mm, shorter than or equaling flower length (sometimes a few bracts at base of raceme to 2 × flower length, rarely all bracts exceeding flowers), apex acute. Perianth white, yellowish white, or yellowish green, sometimes striped or apically tinged pink, 4–7 mm, densely pubescent, rarely sparsely so; tube oblong-urceolate; lobes ± erect, linear-lanceolate, 1.5–3 × ca. 0.5 mm, usually ca. 1 x tube length or shorter, apex acute. Capsule urceolate, obovoid, or oblong-obovoid, distinctly angular, 3–5 × 2–3 mm, abruptly constricted distally when dehisced, apex of valves ± gradually narrowed; style ca. 1 mm; stigma not or only slightly thickened. Fl. May–Aug, Nov, fr. May–Aug. 2n = 26, 52*.

Forests, thicket margins, scrub, grasslands, streambeds, road-sides; 100–2900 m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shanxi, Sichuan, Taiwan, Yunnan, Zhejiang [Japan (including Ryukyu Islands), 'N Malaysia, Philippines (Luzon)].


4. A. laxiflora

5. A. capitata


Leaves numerous, densely tufted, linear, 5–35 cm × (2–)3–5(–8) mm. Scape 25–80 cm. Raceme 5–35 cm, laxly 10–60-flowered; rachis pubescent. Flowers subsessile; pedicel absent to 1(–2) mm, pubescent; bract and bracteole borne on distal part of pedicel, linear-lanceolate, proximally pubescent; bract 4–8 (–11) mm, shorter than or equaling flower (sometimes a few bracts at base of raceme to 2 × flower length), apex acute. Perianth white or pale yellow, sometimes apically tinged pink, 4–7 mm, sparsely pubescent, rarely densely so; tube urceolate; lobes ± erect, narrowly oblong lanceolate to linear, 2.5–4 × 0.5–1 mm, usually ca. 1 × tube length or longer, apex obtuse to acute. Capsule ovoid, not angular, 4–6 × 3–4.5 mm, not or only slightly constricted distally when dehisced, apex of valves abruptly narrowed; style 1–2 mm; stigma not or only slightly thickened. Fl. Mar–Jul, fr. May–Sep.
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- Forests, *Pinus* plantations, pastures, grassy slopes, hillsides, streambeds, wet hollows, moist shaded cliffs; 300–3300 m. Gansu, Guangdong, Guizhou, Hubei, Shaanxi, Sichuan, Yunnan.

*Aletris stenoloba* is very similar to *A. spicata*, and the two species may easily be confused in the absence of fruiting material; the capsule shape is the most reliable distinguishing character. Fruiting material of *A. stenoloba* and *A. laxiflora* may also be confused, although the latter differs in its glabrous perianth with lobes 1–5 × tube length.


**Grayish Fettalite Ash**


Leaves numerous, densely tufted, linear, 3–25(–35) cm × 1.5–6(–10) mm. Scape 10–70 cm. Raceme 2–30 cm, somewhat densely to very laxly 4–60-flowered; rachis pubescent or puberulent. Flowers subsessile to distinctly pedicellate; pedicel 0.5–6(–10) mm, pubescent or puberulent; bract and bracteole usually borne at or near apex of pedicel (rarely at middle or base); bract lanceolate to narrowly so, 3–12 mm, shorter than flower (sometimes a few bracts at base of raceme to 2 × flower length), glabrous, apex acute. Perianth white to pink, 4–7.5 mm, glabrous (but sometimes slightly puberulent at base of tube); tube very short, broadly funnelform; lobes erect, spreading, recurved, or revolute, narrowly oblong or narrowly lanceolate, 2–5.5 × 0.8–1.5 mm, 1–5 × tube length, apex obtuse to acute. Capsule narrowly ovoid to subglobose, 4–8 × 2–4 mm, apex of valves abruptly narrowed; style 1–3 mm; stigma thickened or not. Fl. Mar–Aug, fr. Apr–Aug.

- Forests, river banks, stream beds, rocks; 1100–2900 m. Guizhou, Sichuan, E Xizang (Bomi Xian).

Typical *Aletris laxiflora* from C Sichuan and E Xizang has shorter, usually erect perianth lobes, while plants from C and E Sichuan and Guizhou have longer, often recurved or revolute perianth lobes, and have been called *A. revoluta*. Intermediate plants occur where the two entities overlap in C Sichuan. All are here regarded as a single, variable species. The type of *A. gracilipes*, from C Sichuan, also belongs here and not under *A. stelliflora* (i.e., *A. gracilis* as given in FRPS; it is unusual in having 6–10 mm long pedicels with a basal bract and bracteole.


**Grayish Fettalite Ash**


- Grasshilltops, dry slopes, forests; 2700–3100 m. Guangxi, WC Yunnan (Jingdong Xian).


**Grayish Fettalite Ash**

Roots thickened, fleshy. Rhizome stout, sometimes clump-forming, often surrounded by a dense collar of persistent fibers from disintegrated leaf bases. Leaves usually rather few (5–10) and laxly tufted, sometimes more numerous and dense, linear-lanceolate to linear, 3–25 cm × 1–10 mm. Scape 3.5–40 cm. Raceme 1–20 cm, densely to laxly 4–40-flowered, rachis pubescent. Flowers distinctly pedicellate; pedicel 1–12 mm, pubescent; bract and bracteole borne at or near apex of pedicel; bract lanceolate to narrowly linear-lanceolate, 3–20 mm, 1–4 × flower length, glabrous, apex obtuse to rounded. Perianth dark red, red, pink, orange, yellow, greenish yellow, or white, 3.5–6 mm, glabrous; tube campanulate; lobes usually recurved, sometimes erect, oblong-ovate to lanceolate, 1.5–2.5 × 0.8–1.5 mm, 0.6–1 × tube length, apex obtuse to rounded. Capsule ovoid-ellipsoid or ovoid-conical, 4–6 × 2.5–4 mm, apex of valves gradually narrowed; style to 0.5 mm; stigma thickened. Fl. Apr–Aug, fr. Jun–Oct.

- Mixed, coniferous, and broad-leaved forests, scrub, bamboo scrubs,
swamps, marshes, bogs, stream banks, wet flushes, damp meadows, grassy alpine slopes, open stony pastures, exposed ridges, river gravels, moraines, rocks; 1500–4900 m. Sichuan, Xizang, Yunnan [Bhutan, India, Kashmir, N Myanmar, Nepal, Sikkim].

Two varieties may be recognized, although intermediate plants and mixed collections occur. In FRPS, they were distinguished, in addition to bract length, by having racemes laxly flowered (var. pauciflora) or densely flowered (var. khasiana). However, raceme density seems to indicate the developmental stage of the inflorescence (i.e., denser is younger) rather than correlate with bract length.

1a. Bract obviously longer than flower, to 4×flower length

1b. Bract subequaling flower

7a. Aletris pauciflora var. pauciflora

少花粉条儿菜 (原变种) shao hua fen tiao er cai (yu an bian zhong)


Bract obviously longer than flower, to 4×flower length.

Grassy alpine slopes; 3400–4100 m. Sichuan, Xizang, Yunnan [Bhutan, India, Kashmir, N Myanmar, Nepal, Sikkim].


穗花粉条儿菜 sui hua fen tiao er cai

A. khasiana H. Léveillé; A. lanuginosa Bureau & Franchet; A. lanuginosa var. khasiana (J. D. Hooker) Franchet; Stachyopogon spicatus Klotzsch.

Bract subequaling flower.

Forests, bamboo scrub, swamps, shady rocks; 1500–4900 m. Sichuan, Xizang, Yunnan [NE India].


头花粉条儿菜 tou hua fen tiao er cai

Leaves numerous, densely tufted, linear, 1–3.5 cm × 2–4 mm. Scape somewhat stout, not wiry, straight and erect, 1.5–10 cm. Raceme 0.5–3.5 cm, densely or somewhat laxly 3–14-flowered, becoming lax in fruit; rachis pubescent or puberulent. Flowers distinctly pedicellate; pedicel 1–4 mm, pubescent or puberulent; bract and bracteole borne at or near apex of pedicel; bract lanceolate, 2–6 mm, equaling or exceeding flower, glabrous, apex acute. Perianth white or pinkish white, 3–4 mm, glabrous, or not or scarcely papillose; tube broadly funnelform; lobes erect or slightly recurved, triangular-ovate to lanceolate, 1.5 × 0.5–0.7 mm, 0.3–0.45 × tube length, apex obtuse. Capsule subglobose, 2.5–3 mm, apex of valves ± abruptly narrowed; style ca. 0.4 mm; stigma not or only slightly thickened. Fl. May–Jun, fr. Aug–Sep.

Wet grassy meadows, swamps, damp rock crevices, in moss, among boulders; 3200–4600 m. S Xizang, NW Yunnan (Yulongxue Shan) [Nepal].


高山粉条儿菜 gao shan fen tiao er cai

Aletris alpestris Diels var. occidentalis H. Hará.

Leaves numerous, densely tufted, linear, 1–3.5 cm × 1–4 mm. Scape somewhat stout, not wiry, straight and erect, 0.5–1.5 cm. Raceme 0.5–3.5 cm, densely or somewhat laxly 3–14-flowered, becoming lax in fruit; rachis pubescent or puberulent. Flowers distinctly pedicellate; pedicel 0.5–3 mm, pubescent; bract and bracteole borne at or near apex of pedicel; bract lanceolate, 1.5–4 mm, shorter than flower, glabrous, apex acute. Perianth white or pinkish white, 3.5–4.5 mm, glabrous but often densely papillose; tube cupular or campanulate; lobes recurved, lanceolate, 1.5–2 × 0.5–1 mm, 0.6–1 × tube length, apex of valves obtuse to acute. Capsule ovoid-globose, ca. 3 × 2.5 mm, apex abruptly narrowed; style ca. 0.3 mm; stigma not or only slightly thickened. Fl. Apr–Jul, fr. Aug–Sep.

• Cliffs, rocks in forests; 800–3900 m. Guizhou, Shaanxi, Sichuan, NE Yunnan (Yiliang Xian).


长柄粉条儿菜 chang bing fen tiao er cai

Leaves numerous, densely tufted, linear-lanceolate to linear-ar, 2–8 cm × 1.5–5 mm. Scape 7–30 cm. Raceme 2–12 cm, somewhat laxly 8–45-flowered; rachis pubescent. Flowers distinctly pedicellate; pedicel 1.5–7 mm, pubescent; bract and bracteole borne on proximal 1/2 of pedicel; bract linear-lanceolate, 2–7 mm, shorter than flower, pubescent at least proximally, apex acute. Perianth white or pink, 3–6 mm, pubescent; tube cupular; lobes ± erect, oblong-lanceolate, 2–3 × 0.5–0.8 mm, ca. 1 × tube length, apex obtuse. Capsule subglobose, 2–3.5 × 2–3 mm, apex of valves abruptly narrowed; style ca. 0.5
mm; stigma not or only slightly thickened. Fl. and fr. May–Jun.

• About 800 m. Sichuan.


雅安粉条儿菜 *ya an fen tiao er cai*

Leaves numerous, densely tufted, linear-lanceolate, rarely lanceolate, 2–3 cm × 2–4 mm. Scape 7–10 cm. Raceme 1–2 cm, 7–9-flowered; rachis pubescent. Flowers distinctly pedicellate; pedicel 1–2.5 mm, pubescent; bract and bracteole borne on proximal part of pedicel, often at or near base; bract linear-lanceolate, ca. 4 mm, slightly shorter than flower, base pubescent, apex acute. Perianth creamy white, 1.5–2.5 mm, pubescent; tube campanulate; lobes erect, ovate, ca. 1 × 0.7 mm, ca. 1 × tube length, apex obtuse. Ovary subglobose. Capsule unknown. Fl. May.

• About 800 m. C Sichuan (Ya’an Xian).

*Aletris yaanica* is known only from the type collection. The protologue illustrates a plant at early anthesis which seems very similar to *A. pedicellata*. Further gatherings are needed to establish whether or not it is distinct.


短柄粉条儿菜 *duan bing fen tiao er cai*

Leaves 1–5, laxly tufted, linear, 3–15 cm × 2–4.5 mm. Scape 10–35 cm, slender, often wiry. Raceme 2.5–12.5 cm, laxly 4–17-flowered; rachis pubescent. Flowers shortly pedicellate; pedicel 0.5–3.5 mm, pubescent; bract and bracteole borne on proximal 1/2 of pedicel; bract linear-lanceolate, 2–5.5 mm, shorter than or equaling flower, ± glabrous, apex acute. Perianth white, 3–5 mm, sparsely pubescent or glabrescent; tube campanulate; lobes erect or slightly recurved, narrowly oblong-lanceolate to linear, 1.5–2.5 × 0.3–0.7 mm, ca. 1 × tube length or slightly longer, apex obtuse to rounded. Capsule subglobose, 3–3.5 × 2.5–3 mm, apex of valves abruptly narrowed; style ca. 0.5 mm or indistinct; stigma not or only slightly thickened. Fl. Mar–Apr, fr. Apr.

Roadside scrub, grassy slopes, moist places on steppes, wastelands; near sea level to 400 m. Fujian, Guangdong, Hunan, Jiangxi, Zhejiang [Japan].

The type of *Aletris makiyataroi*, described from Japan in 1973, corresponds with that of *A. scopulorum*, which was formerly considered endemic to China.


大花粉条儿菜 *da hua fen tiao er cai*

Leaves rather few (ca. 10), laxly tufted, linear-lanceolate to linear, 15–40 cm × 10–15 mm. Scape to 40 cm. Raceme 9–12 cm, somewhat laxly 15–20-flowered; rachis pubescent. Flowers distinctly pedicellate; pedicel 2–3 mm, stout, densely pubescent; bract and bracteole borne near apex of pedicel; bract lanceolate to narrowly so, 6–18 mm, slightly longer than to 2 × as long as flower, base pubescent, apex obtuse. Perianth pink, 7–10 mm, densely pubescent; tube urceolate; lobes erect, deltoid-ovate, 2–3 × ca. 1.5 mm, 0.3–0.5 × tube length, apex obtuse-rounded. Capsule unknown. Fl. Jul.

• Grassy slopes; 2800–3400 m. W Yunan (Zhenkang Xian).