Herbs, perennial, monocarpic or polycarpic, often onion-(Allium)-scented. Taproot stout, often woody. Stem branching, alternate, opposite or verticillate, base often clothed in fibrous remnant sheaths. Leaves petiolate, base sheathing, usually broadly so; blade 2–4-pinnate or 2–4-pinnatisect. Cauline leaves reduced upwards. Inflorescences often polygamous, terminal umbels compound, flowers perfect; lateral umbels both compound and simple, flowers bisexual or staminate; bracts usually absent; bracteoles present or absent. Calyx teeth obsolete or minute, triangular (except F. kingdon-wardii). Petals yellow or pale yellow (rarely greenish-yellow), ovate or lanceolate-oblong, apex acuminate, inflexed. Stylodium conic, base sometimes dilated, lobed. Fruit ellipsoid or ovate-globose, strongly dorsally compressed, glabrous (rarely sparsely puberulent); dorsal ribs filiform, usually prominent, lateral ribs winged, wings narrow or broad; vittae 1–4 in each furrow, 2–12 on commissure. Seed face plane or slightly concave. Carpophore 2-cleft to base.

About 150 species: N Africa, C and SW Asia, Mediterranean region; 26 species (seven endemic) in China.

1a. Inflorescence of compound and simple umbels, compound umbels terminal, simple umbels axillary, opposite or successively verticillate forming crowded moniliform racemes.

2a. Stem 1–1.5 m, stout, simply branched .................................................................................................................... 24. F. feruloides

2b. Stem 0.3–0.6 m, slender, duplicately branched.

3a. Leaves roughened, hispid and deciduous; fruits ca. equal to pedicels ................................................................. 25. F. caspica

3b. Leaves adaxially glabrous, abaxially pubescent, not deciduous; fruits longer than pedicels ........................... 26. F. dubianskyi

1b. Inflorescence of only compound umbels in an ample loose panicle.

4a. Petals persistent for a long time after flowering; polycarpic; vittae 3–4 in each furrow, 10–12 on commissure .................................................................................................................................................................................. 10. F. lehmannii

4b. Petals deciduous after flowering, monocarpic or polycarpic.

5a. Stem stout, spongy; leaves usually smooth, not papillose, deciduous.

6a. Segments of leaves larger, oblong-ovate, more than 5 cm.

7a. Plants strongly onion-scented; stem elongate-conic; fruit ribs narrowly winged ................................................................. 1. F. conoacaula

7b. Plants not onion-scented; stem terete; fruit ribs broadly winged ......................................................................................... 2. F. jaenschkeana

6b. Segments of leaves smaller, shapes various, less than 5 cm.

8a. Petals abaxially glabrous ............................................................................................................................................. 9. F. canescens

8b. Petals abaxially pubescent.

9a. Stem slender, suberect or flexuose, 15–50 cm high, plants not onion-scented.

10a. Plants 15–30 cm; bracteoles densely white villous; fruits 5–8 mm, longer than pedicels; vittae 2 on commissure ................................................................................................................................................................. 7. F. syreitschikowii

10b. Plants 50 cm; bracteoles glabrous; fruits 8–10 mm, shorter than pedicels; vittae 2–6 on commissure ......................................................................................................................................................... 8. F. hexiensis

9b. Stem stout, erect, above 1 m high, plants strongly onion-scented.

11a. Segments of leaves lobed or toothed; fruit vittae 3–5 in each furrow, 10–14 on commissure.

12a. Stem roughened, pubescent; mature fruits 10–12 mm, equaling or shorter than pedicels ......... 3. F. sinkiangensis

12b. Stem subglabrous; mature fruits 12–16 mm, longer than pedicels ......................................................................................... 4. F. fukanensis

11b. Segments of leaves lanceolate; fruit vittae 1–2 in each furrow, 6 on commissure.

13a. Umbellules 10–20-flowered; fruit 10–12 mm, vittae 1–2 in each furrow ......................................................... 5. F. teterrima

13b. Umbellules 10–13-flowered; fruit ca. 14 mm, vittae 2 in each furrow, rarely 3 ..................................... 6. F. krylovii

5b. Stem slender, not spongy; leaves roughened; usually papillose, persistent until plant has withered.

14a. Leaves thick, sub-leathery, rigid, not deciduous.

15a. Ultimate leaf segments linear, 1–2 mm, branchlets often verticillate; bracteoles deciduous ....................... 14. F. dissecta

15b. Ultimate leaf segments elliptic or ovate, never linear.

16a. Plants low, 30–60 cm, leaves densely puberulous, bluish green; rays 4–15, spreading, unequal; lateral umbel absent ................................................................................................................................. 11. F. bungeana

16b. Plants tall, 1–3 m, leaves roughened, hispid or sparingly pubescent; lateral umbel present.

17a. Ultimate leaf segments 5–10 mm, toothed or lobed; fruit vittae 4–8 on commissure ......................................................... 12. F. ovina

17b. Ultimate leaf segments 20–30 mm, parted, lobules entire or serrate; fruit vittae 2 on commissure ...... 13. F. lapidosa

14b. Leaves thin, papery, flexible, deciduous.

18a. Ultimate segments linear or lanceolate.
19a. Leaves ternate-3–4-pinnatisect, ultimate segments up to 30 mm ........................................ 20. *F. songarica*
19b. Leaves 2–3-pinnatisect, ultimate segments 2–10 mm.
20a. Plants sparsely pubescent, leaves adaxially glabrous, abaxially pubescent; fruit 5–7 mm, vittae 2 on commissure .......................................................... 21. *F. gracilis*
20b. Plants glabrous; fruit (7–)10–15 mm, vittae 4–8 on commissure ..................................... 22. *F. licentiana*

18b. Ultimate segments elliptic-ovate, never linear or lanceolate.
21a. Plants glabrous.
22a. Leaf blade 2–3-pinnatisect, ultimate segments oblong, 0.3–1 × 0.2–0.6 cm; calyx teeth conspicuous, long-triangular ................................................................. 17. *F. olivacea*
22b. Leaf blade 3-pinnate, ultimate segments long-ovate or broadly ovate; calyx teeth obsolete or rarely subulate ....................................................................... 18. *F. kingdon-wardii*
21b. Plant pubescent or hispid.
23a. Leaves adaxially glabrous, abaxially pubescent, articulate between petiole and blade.
24a. Stem 0.5–1 m, 1 × branched; leaf blade ternate-pinnate, pinnae pinnately parted; lateral umbels single .......................................................... 15. *F. moschata*
24b. Stem 2–3 m, 2 × branched; leaf blade ternate-3-pinnatisect; lateral umbels absent ........... 16. *F. kiraliovii*
23b. Leaves roughened, hispid, not articulate between petiole and blade.
25a. Leaves adaxially glabrous, abaxially sparsely hisrate, basal leaves long-petiolate; bracteoles persistent .......................................................................................... 19. *F. akitschakensis*
25b. Leaves hispid on both surfaces, basal leaves sessile or short-petiolate; bracteoles deciduous
.............................................................................................................................................. 23. *F. karataviensis*


**中亚阿魏** yuan zhui jing a wei

Plants ca. 2 m, monocarpic, strongly onion-scented. Stem solitary, very stout, up to 15 cm thick at base, tapering towards apex, hispid, paniculate-branched, branches thick, lower branches alternate, upper branches verticillate, purplish tinged with age. Basal leaves petiolate; blade triangular in outline, ternate-pinnatifid; ultimate segments lanceolate or lanceolate-elliptic, to 27 × 7 cm, finely crenate, adaxially glabrous, abaxially densely puberulous. Cauline leaves reduced with expanded sheaths, uppermost almost wholly sheathing. Terminal umbels often sessile or short-pedunculate, lateral umbels long-pedunculate, usually exceeding terminal; umbels 8–14 mm across; bracts absent; rays 12–50, subequal; bracteoles few, lanceolate, small, deciduous; umbellules ca. 15-flowered. Stylopodium long-conic, base dilated; styles elongate, recurved. Fruit ellipsoid, ca. 10 × 5 mm; vittae 1–2 in each furrow, 8–14 on commissure. Fl. May–Jun, fr. Jun–Jul.

Mountain valleys, semi-deserts; ca. 2800 m. SW Xinjiang (Wu-qia) [Kyrgyzstan].

This species is used in Xinjiang as a regional substitute for the traditional Chinese medicine “a wei” (*Ferula assafoetida* Linnaeus).


**中亚阿魏** zhong ya a wei

*Ferula jaeschkeana* var. *parkeriana* O. E. Schulz; *Peucedanum jaeschkeanum* (Vatke) Baillon.


Grassy slopes, among shrubs; ca. 3600 m. W Xizang (Ngari, Zanda) [Afghanistan, Bhutan, NE India, W Pakistan; C Asia].


**新疆阿魏** xin jiang a wei

Plants 0.5–1.5 m, strongly onion-scented. Rootstock thick, conical. Stem stout, pubescent, paniculate-branched, lower branches alternate, upper branches verticillate, often purplish red. Leaf blade gray-green, triangular-ovate in outline, ternate-3-pinnatisect; ultimate segments broadly elliptic, ca. 10 mm, shallowly lobed or toothed, base decurrent, adaxially sparsely pubescent, abaxially densely puberulent. Terminal umbel subsessile, lateral umbels (1–)2–4, opposite or alternate, peduncles elongate, exceeding terminal; umbels 8–12 cm across; bracts absent; rays 5–25, puberulent; bracteoles broadly lanceolate, deciduous. Petals abaxially puberulous. Stylopodium low-conic, base dilated, undulated-margined. Fruit ellipsoid, 10–12 × 5–6 mm, sparsely puberulent; vittae 3–4 in each furrow, unequal, 12–14 on commissure. Fl. and fr. Apr–Jun.

Desert gravels; 800–900 m. W Xinjiang (Yining).

This species is used in Xinjiang as a regional substitute for the traditional Chinese medicine “a wei” (*Ferula assafoetida* Linnaeus).


This species has reputed medicinal value.


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leaves few, less divided than basal, uppermost often bladeless, petals wholly sheathing, sheaths oblong-lanceolate, pubescent. Terminal umbel pedunculate, lateral umbels 1–2, exceeding terminal; umbels 3–6 cm across; bracts absent; rays (2–)4–5(–8), subequal; bracteoles few, lanceolate, scarious-margined; umbrellas ca. 10-flowered. Petals glabrous. Stylopodium low-conic, base dilated, lobed. Fruit oblong-ellipsoid, 8–14 × 3.5–6 mm; vittae 1 in each furrow, large, 2 on commissure. Fl. Jun, fr. Jul.

Desert gravels; ca. 800 m. N Xinjiang (Fuyun) [Kyrgyzstan, Russia (W Siberia), Uzbekistan].


Sandy places on low mountain slopes; 1000–1100 m. NC Xinjiang (Manas) [Afghanistan, Kazakhstan, Kyrgyzstan, W Pakistan, Uzbekistan; C Asia, SW Asia (Iran)].

The rootstock is used medicinally.


Sandy places on low mountain slopes; 1000–1100 m. NC Xinjiang (Manas) [Afghanistan, Kazakhstan, Kyrgyzstan, W Pakistan, Uzbekistan; C Asia, SW Asia (Iran)].

The rootstock is used medicinally.


Sandy places on low mountain slopes; 1000–1100 m. NC Xinjiang (Manas) [Afghanistan, Kazakhstan, Kyrgyzstan, W Pakistan, Uzbekistan; C Asia, SW Asia (Iran)].

The rootstock is used medicinally.


Plants 60–100 cm, hispid throughout. Stems slender, several, nodes slightly swollen, paniculate-branched, lower branches alternate, upper branches verticillate. Basal leaves short-petiolate, sheaths dilated; blade broadly ovate, ternate-3–4-pinnatisect; ultimate segments ovate, 1–2 mm, densely hispid, sub-leathery, margins toothed or lobed. Cauline leaves reduced upwards to small, broad, leathery ovate-lanceolate sheaths. Terminal umbel sessile or short-pedunculate, lateral umbels 1–2, exceeding terminal; umbels 4–6 cm across; bracts absent; rays 3–10; bracteoles squamose, deciduous; umbrellas 5–12-flowered. Stylopodium low-conic, base dilated. Fruit ellipsoid, 5–10 × 2–5 mm; lateral ribs narrowly winged; vittae 1 in each furrow, 4–8 on commissure, large. Fl. and fr. May–Jun.

Gravelly slopes; 1200–1700 m. N Xinjiang (Altay, Tacheng) [Afghanistan, Kazakhstan, Kyrgyzstan, W Pakistan, Tajikistan; SW Asia (Iran)].
3–5 mm; vittae 1 in each furrow, 6 on commissure. Fl. May, fr. Jun.

Gravelly slopes; 1000–1700 m. N Xinjiang (Altay, Tacheng) [Kazakhstan, Russia (W Siberia)].


Plants 0.5–1 m, pubescent becoming subglabrous. Stem slender, corymbose-branched, lower branches alternate, upper branches verticillate. Leaf blade broadly elliptic-triangular, terminal-2-pinnatisect; ultimate segments oblong or lanceolate, 20–35 × 10–15 mm, remote, rather thick, adaxially glabrous, abaxially pubescent, sometimes sparsely papillose along veins, distally lobed, lobules entire or toothed. Terminal umbel long-pedunculate, lateral umbels 1–2, solitary or opposite, slightly exceeding terminal; umbels 4–6 cm across; bracts absent; rays 6–12, subequal; bracteoles lanceolate; umbellules 9–12-flowered. Stylodium low-conic, base dilated, margins undulate. Fruit ellipsoid, ca. 7 mm; vittae 1 in each furrow, 2 on commissure. Fl. Jun, fr. Jul.

Scrub on gravelly slopes; 1500–1600 m. W Xinjiang (Zhaosu) [Kyrgyzstan, Tajikistan].


Plants 0.5–1 m. Stem slender, purplish red-tinged, 2 × corymbose-branched, lower branches alternate, upper branches verticillate, branchlets often opposite, rarely alternate or single. Basal leaves long-petiolate, articulate between petiole and blade; blade triangular-ovate, 3-pinnate, leaflets 2-pinnatisect; ultimate segments broadly elliptic or long-elliptic, 10–30 × 5–20 mm, abaxially pubescent, pinnate, lobules entire or toothed. Upper leaf bladeless, sheaths lanceolate. Umbels 4–8 cm across, terminal on stem, branches and branchlets; bracts absent; rays 6–12, subequal; bracteoles several, lanceolate or subulate, persistent; umbellules 12–17-flowered. Stylodium low-conic, base dilated. Fruit ellipsoid, ca. 7 × 3 mm; vittae small, 1 in each furrow, 2 on commissure. Fl. Jun, fr. Jul.

Scrub or grassy places on gravelly slopes; ca. 1500 m. Xinjiang (Tian Shan) [C Asia (W Tian Shan)].

17. **Ferula olivacea** (Diels) H. Wolff in Handel-Mazzetti, Symb. Sin. 7: 727. 1933. 檬绿阿魏 lan lü a wei


Plants 30–60 cm, glabrous throughout, glaucescent. Stem solitary, corymbose-branched, branches alternate, remote. Basal leaves short-petiolate; blade broadly ovate, 2–3-pinnatisect; ultimate segments broadly elliptic or ovate, pinnatifid, lobules elliptic or obovate, rather thick, veins elevated abaxially, base cuneate, decurrent, margin toothed, apex mucronate. Umbels terminal on stem and branches, ca. 12 cm across; bracts absent or few, linear, unequal, occasionally foliaceous, deciduous; rays 8–16, unequal; bracteoles linear, persistent; umbellules 10–20-flowered; pedicels unequal, 5–10 mm. Petals yellowish green. Stylodium low-conic, base thickened. Fruit oblong or ellipsoid, ca. 10 × 5 mm; vittae 1 in each furrow, 2 on commissure. Fl. and fr. May–Jul.

- Forests, grassy slopes, rock crevices on valley sides; 3300–3800 m. NW Yunnan (Lijiang).

This species has reputed medicinal value.


_Peuverdanum kingdon-wardii_ (H. Wolff) Korovin.

Plants 0.5–1 m, glabrous throughout, glaucous. Stem fluted. Leaf blade broadly triangular-ovate, 3-pinnate, pinnate 4–5 pairs; ultimate segments long-ovate or broadly ovate, 1.5–2.5 × 1–1.8 cm, subleathery, abaxially glaucous, base cuneate or truncate, irregularly coarsely toothed. Upper leaves 3-lobed, lobules ovate-lanceolate, sheaths dilated, subbaccate. Umbels 8–13 cm across; bracts 1–2, broadly ovate or ovate-lanceolate, unequal; rays 7–16, stout, 4–7 cm; bracteoles 6–8, linear-lanceolate, shorter than flowers; umbellules 12–20-flowered. Calyx teeth obsolete or subulate. Stylodium low-conic. Fruit ellipsoid, 0.8–1 × ca. 0.5 cm; lateral ribs narrowly winged; vittae 1 in each furrow, 2 on commissure. Fl. and fr. Aug–Oct.

- Gaps among stones on grassy slopes; 2700–3300 m. NW Yunnan.


Plants 1–1.5 m. Stem slender, paniculate-branched, lower branches alternate, upper branches verticillate. Basal leaves long-petiolate; blade broadly rhombic, ternate-3-pinnatisect; ultimate segments oblong or ovate-oblong, 8–15(–30) × 3–5 (–10) mm, usually pinnatisect, lobules linear, entire, adaxially glabrous, abaxially sparsely hispid. Upper leaves bladeless, sheaths lanceolate. Terminal umbel sessile or short-pedunculate, lateral umbels 2–4, opposite or verticillate, rarely single, exceeding terminal; umbels 5–10 cm across; bracts lanceolate; rays 10–20(–25), subequal, very spreading; bracteoles 5–7, lanceolate, persistent; umbellules 8–16-flowered. Stylodium low-conic, base dilated; style elongate, very reflexed when mature. Fruit ellipsoid, ca. 8 mm; vittae 1 in each furrow, 2 on commissure. Fl. and fr. Jun–Jul.

Mountain slopes, scrub or grassy places on gravelly slopes; 900–2100 m. N Xinjiang (Altay, Bole, Tacheng) [Kazakhstan, Kyrgyzstan, Russia].

20. **Ferula songarica** Pallas ex Sprengel in Roemer & Schultes, Syst. Veg. 6: 598. 1820. 准噶尔阿魏 zhun ga er a wei

Mountain slopes, scrub or grassy places on gravelly slopes; 900–2100 m. N Xinjiang (Altay, Bole, Tacheng) [Kazakhstan, Russia (W Siberia)].
Plants 1–1.5 m. Stems 1–3 robust, rigid, purplish red with age, paniculate-branched, lower branches alternate, upper branches verticillate. Basal leaves long-petiolate; blade broadly triangular, ternaltate-3–4-pinnatisect; ultimate segments green, linear, 1.5–3 × 1–2 mm, thick-papery, glabrous, entire, soon wilting, deciduous. Cauline leaves reduced upwards, small, less divided than basal, sheaths lanceolate, thin-leathery. Terminal umbel short-pedunculate, lateral umbels (1–)2–4 or absent, long-pedunculate, exceeding terminal; umbellules 4–7 cm across; rays 10–20, subequal; bracteoles 5, lanceolate, persistent; umbellules 15–20-flowered. Stylopodium low-conic; style elongate. Fruit ellipsoid, ca. 8 × 5 mm; vitae 1 in each furrow, 2 on commissure. Fl. and fr. Jun–Jul.

Scrub or grassy places on mountain slopes; 1100–1800 m. N Xinjiang (Altay, Tacheng) [Kazakhstan, Russia (W Siberia)].


Peucedanum gracile Ledebour, Fl. Altaic. 1: 308. 1829.

Plants 50–80 cm, sparsely pubescent. Stem slender, erect, solitary, paniculate-branched from middle, branches alternate. Basal leaves short-petiolate; blade broadly ovate, ternaltate-2–3-pinnatisect; ultimate segments ovate or oblong-elliptic, pinnatifid, lobules lanceolate, ca. 5–10 mm, adaxially glabrous, abaxially sparsely pubescent, thin-papery. Cauline leaves reduced upwards, uppermost leaves bladeless, sheaths lanceolate, deciduous. Terminal umbel pedunculate or subsessile, lateral umbels 1–2, pedunculate, usually slightly shorter than terminal; bracts absent; rays 4–8, unequal; bracteoles lanceolate, membranous, deciduous; umbellules 10–15-flowered. Stylopodium long-conic, base dilated; styles elongate. Fruit ellipsoid, 5–7 mm; vitae 1 in each furrow, 2 on commissure. Fl. Jun, fr. Jul.

Grassy places, gravelly slopes on valley sides; 730–1700 m. N Xinjiang (Altay) [Russia (W Siberia)].


Plants (60–)120–180 cm, glabrous throughout. Stem solitary, slender, usually flexuose-petiolate, lower branches alternate, upper branches verticillate. Basal leaves petiolate; blade broadly ovate-triangular, 3–4-pinnatisect; ultimate segments ovate-oblong, often pinnately parted or lobed, lobules lanceolate, 2–4 mm, both surfaces glabrous. Upper leaves reduced, bladeless, sheaths lanceolate, embracing. Terminal umbel short-pedunculate, lateral umbels 1–3, simple or opposite, exceeding terminal; bracts absent or 1–3, linear, small; rays 7–11, 2.5–3 cm, subequal; bracteoles 4–5, lanceolate; umbellules 7–15-flowered. Stylopodium long-conic. Fruit pale brown, oblong or oblong-obovate, (7–)10–15 mm; lateral broadly winged; vitae (1–)3–4 in each furrow, 4–8 on commissure. Fl. and fr. Jun–Jul.

Mountain slopes; 100–2100 m. EC Anhui (Dingyuan), NW Jiangsu (Suining, Tongshan), W Shandong (Jinan).

22a. Ferula licentiana var. licentiana 太行阿魏(原变种) tai hang a wei (yuan bian zhong)

Plants 120–180 cm. Rays 7–11, 3–5 cm. Fruit 10–15 mm; vitae 3–4 in each furrow, 4–8 on commissure.

Mountain slopes; 1200–2100 m. N Henan, S Shaanxi (Qin Ling), E Shanxi (Taihang Shan).


铜山阿魏 tong shan a wei


Plants 60–120 cm. Rays 3–7, 1.5–3 cm. Fruit 7–10 mm; vitae 1–3 in each furrow, 4–6 on commissure.

Mountain slopes; 100–200 m. EC Anhui (Dingyuan), NW Jiangsu (Saining, Tongshan), W Shandong (Jinan).


Plants 0.5–1 m. Root cylindrical, with spherical tuberous swellings. Stem corymbose-branched above, branches alternate. Basal leaves sessile or short-petiolate with expanded sheaths; blade triangular-ovate, ternaltate-2–3-pinnatisect; ultimate segments broadly elliptic, usually pinnately parted, lobules lanceolate, ca. 5 mm, roughened, both surfaces sparsely hispid, apex mucronate. Terminal umbel pedunculate or sessile, lateral umbels 2–3, opposite or verticillate, rarely single, long-pedunculate, exceeding terminal; bracts subulate, deciduous; rays 4–10, unequal; bracteoles subulate, deciduous; umbellules 4–15-flowered. Stylopodium short-conic, base dilated. Fruit ellipsoid, ca. 8 mm; vitae 1 in each furrow, large, 2 on commissure. Fl. and fr. May–Jul.

Gravelly slopes; 1100–1700 m. W Xinjiang (Xinyuan) [C Asia (Altay, Pamir, Tian Shan)].

24. Ferula feruloides (Steudel) Korovin, Monogr. Ferula, 77. 1947 [“ferulaeoides”].

多伞阿魏 duo san a wei


Plants 1–1.5 m. Root fusiform. Stem stout, solitary, rarely 2–4, sparsely pubescent, paniculate-branched from middle, branches verticillate, occasionally alternate. Basal leaf blade broadly ovate, ternaltate-4-pinnatisect; ultimate segments ovate, ca. 10 mm, usually parted, lobules entire or toothed, densely pubescent, deciduous. Inflorescence copiously cymose-branched, often several simple umbels successively verticillate on the same branch, forming a crowded moniliform ra-
In C Asia the leaves are harvested for cattle fodder, and the plants have reputed medicinal value, presumably as a regional substitute for the traditional Chinese medicine “a wei” (*Ferula assafoetida* Linnaeus).

### 25. Ferula caspica


*里海阿魏  li hai a wei*

*Peucedanum caspicum* (Marschall von Bieberstein) Link.

Plants 30–60 cm. Root fusiform; caudex branched. Stem single, rarely 2–3, slender, 2 × paniculate-branching, branches alternate, branchlets opposite or alternate. Basal leaves short-petiolate; blade broadly ovate, 3-pinnate/pinnatifid; ultimate segments ovate, usually lobed, lobules lanceolate, both surfaces roughened, hispid, apex acute, deciduous. Compound umbels terminal, simple umbels lateral on branches and branchlets, 1–3, opposite or verticillate, umbels 1.5–3 cm across; bracts and bracteoles absent; rays 1–6, subequal; umbellules 8–10(–15)-flowered. Stylopodium low-conic, base dilated; styles elongate. Fruit ellipsoid, ca. 4–5(–9) × 3–4(–7) mm; lateral ribs narrowly winged; vittae 1 in each furrow, 2 on commissure. Fl. and fr. May–Jul.

Rock crevices on low mountain slopes; 500–1800 m. N Xinjiang [Kyrgyzstan, Mongolia, Russia (Siberia), Uzbekistan; C and SW Asia].

### 26. Ferula dubjanskyi

*Korovin ex Pavlov, Fl. Kazakhstan 2: 539. 1934.*

*沙生阿魏  sha sheng a wei*

*Ferula dshaudshamyr* Korovin.

Plants 50–70 cm. Stem solitary, 2 × panicle-branched. Leaf blade broadly elliptic, 3-pinnate/pinnatifid; ultimate segments elliptic, 5–10 mm, usually lobed or toothed, adaxially glabrous, abaxially densely pubescent. Compound umbels terminal on stem and branches, single umbels lateral on branches and branchlets, 1–2, solitary or opposite; umbels 1–4 cm across; bracts and bracteoles absent; rays 2–7, subequal; umbellules 6–10-flowered. Stylopodium low-conic, base dilated, margins undulate; styles elongate. Fruit ellipsoid, 4–6 × 2–4 mm; lateral ribs narrowly winged, wings whitish; vittae 1 in each furrow, 2 on commissure. Fl. and fr. Jun.–Jul.

Sandy slopes in deserts; 400–600 m. N Xinjiang (Altay) [Kazakhstan, Kyrgyzstan, W Mongolia. Uzbekistan; C Asia].