

97. SEMENOVIA Regel & Herder, Bull. Soc. Imp. Naturalistes Moscou 39(3): 78. 1866.

大瓣芹属 da ban qin shu

Pu Fading (溥发鼎 Pu Fa-ting); Mark F. Watson

Neoplatytaenia Geldikhanov; *Platytaenia* Nevski & Vvedensky.

Herbs, perennial. Taproot fusiform, crown usually clothed with fibrous remnant sheaths. Stem usually solitary. Basal and lower leaves 1–2-pinnate. Umbels terminal and lateral; umbellules 10–30-flowered. Calyx teeth minute or conspicuous. Petals white, rarely pale yellow, outer flowers of the umbel radiant with outer petals enlarged, broad obovate, apex deeply 2-lobed, abaxially puberulent. Stylopodium conic; styles slightly longer than stylopodium, reflexed. Fruit ovoid or ovoid-oblong, pilose to glabrous, dorsally compressed; dorsal and intermediate ribs raised, rarely undulate, lateral ribs broadly winged or nearly as wide as the dorsal; vittae 1 in each furrow, 2 on commissure, filiform, usually extending to the base or at least to 3/4 length of mericarp. Seed face plane or slightly concave. Carpophore 2-parted to base.

About 20 species: C Asia, SW Asia (Iran); four species in China.

- 1a. Calyx teeth conspicuous, unequal; lateral ribs of fruit broadly winged.
 - 2a. Petals white, purple veining absent; fruit pilose; basal leaves pinnate, pinnae broad-ovate to ovate-oblong, 20–30 × 10–20 mm 1. *S. transiliensis*
 - 2b. Petals white or yellowish-white, with purple medial veins; fruit glabrous; basal leaves 2-pinnate, ultimate segments linear, ca. 5 × 1 mm 2. *S. rubtzovii*
- 1b. Calyx teeth minute, inconspicuous; lateral ribs of fruit narrowly winged.
 - 3a. Fruit ribs undulate; basal leaves 1–2-pinnate, pinnae ovate-oblong, 5–8 × 3–4 mm 3. *S. pimpinelloides*
 - 3b. Fruit ribs filiform, elevated; basal leaves pinnate, pinnae ovate or broad-ovate, 30–60 × 25–50 mm 4. *S. dasycarpa*

1. *Semenovia transiliensis* Regel & Herder, Bull. Soc. Imp. Naturalistes Moscou 39(3): 79. 1866.

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Heracleum transiliense (Regel & Herder) O. Fedtschenko & B. Fedtschenko.

Plants 20–60 cm tall. Stem slender, branching, glabrous rarely sparsely puberulent. Basal leaves pinnate; pinnae 5–6 pairs, broad-ovate to ovate-oblong, 2–3 × 1–2 cm, margin pinnatifid to pinnatisect. Cauline leaves similar to the basal, reduced upward with strongly expanding sheaths; pinnae lanceolate, glabrous or finely pubescent. Bracts 3–5, linear; rays 4–15, subequal, 3–4 cm, densely hairy with spreading hairs; bracteoles 3–5, linear, nearly as long as umbellule; flowers 15–20 per umbellule. Calyx teeth conspicuous, unequal. Petals white. Fruit ovoid, 6–8 × 4–5 mm, pilose; lateral ribs broadly winged; dorsal vittae filling the furrow, 3/4 length of mericarp, lateral vittae sometimes shorter, commissure vittae narrower than dorsal. Fl. and fr. Jul–Sep.

Grassy slopes, alpine meadows; 1900–3200 m. WC Xinjiang [Kazakhstan, Kyrgyzstan].

2. *Semenovia rubtzovii* (Schischkin) Mandenova, Trudy Tbilissk. Bot. Inst. 20: 23. 1959.

光果大瓣芹 guang guo da ban qin

Platytaenia rubtzovii Schischkin in Schischkin & Bobrov, Fl. URSS 17: 357. 1951; *Zosima rubtzovii* (Schischkin) M. Hiroe.

Plants 40–60 cm tall. Taproot 1–2 cm across. Stem profusely branched, villose. Basal leaves 2-pinnate; ultimate segments linear, 4–6 × ca. 1 mm, puberulent. Cauline leaves similar to the basal, reduced upward. Umbels terminal and many

lateral, 3–8 cm across; bracts 2–3, lanceolate, villose, membranous at margins; rays 7–13, unequal, 1.5–3 cm, pubescent; bracteoles 5, similar to the bracts; umbellules 15–20-flowered. Calyx teeth conspicuous, triangular. Petals white or yellowish-white, medial veins purple. Fruit ovoid, 5–7 × 3–4 mm, glabrous; dorsal and intermediate ribs filiform, lateral ribs broadly winged; vittae extending to base of mericarp, commissure vittae shorter than dorsal. Seed face plane. Fl. and fr. Jun–Aug.

Pebbly slopes, rock crevices. N Xinjiang (Ili) [Kazakhstan].

3. *Semenovia pimpinelloides* (Nevski) Mandenova, Trudy Tbilissk. Bot. Inst. 20: 22. 1959.

密毛大瓣芹 mi mao da ban qin

Platytaenia pimpinelloides Nevski, Trudy Bot. Inst. Akad. Nauk SSSR, Ser. 1, Fl. Sist. Vyssh. Rast. 4: 271. 1937; *Neoplatytaenia pimpinelloides* (Nevski) Geldikhanov; *Zosima pimpinelloides* (Nevski) M. Hiroe.

Plants small, 25–40 cm tall. Taproot ca. 1 cm across. Stems 1–2, branched from base, pubescent. Basal leaves rosulate, pinnate; pinnae 3–4 pairs, pinnatifid, ovate-oblong, 5–8 × 3–4 mm, both surfaces densely pubescent, olivaceous; petiole short. Cauline leaves similar to basal, reduced upward. Umbels terminal, 2–5 cm across; bracts 4–6, lanceolate, densely villose, with membranous margins; rays 5–10, subequal, 1.5–2 cm, pubescent; bracteoles similar to the bracts, shorter than pedicels. Calyx teeth minute. Petals pale yellow. Fruit ovoid, 5–7 × 3–5 mm, puberulent; all ribs raised, undulate, narrowly winged; vittae reaching to the base of mericarp. Seed face slightly concave. Fl. and fr. Jul–Aug.

Arid pebbly slopes in alpine zone; 2600–3100 m. SW Xinjiang (Wuqia) [Kazakhstan].

4. *Semenovia dasycarpa* (Regel & Schmalhausen) Korovin ex Pimenov & V. N. Tikhomirov in Czerepanov, Sosud. Rast. SSSR, 29. 1981.

毛果大瓣芹 mao guo da ban qin

Pastinaca dasycarpa Regel & Schmalhausen, Trudy Imp. S.-Peterburgsk. Bot. Sada 5: 598. 1878; *Malabaila dasycarpa* (Regel & Schmalhausen) Schischkin; *Platytaenia dasycarpa* (Regel & Schmalhausen) Korovin; *P. komarovii* (Mandenova) Schischkin; *Semenovia komarovii* Mandenova; *Tordyliopsis komarovii* (Mandenova) Mandenova; *Zosima komarovii* (Mandenova) M. Hiroe.

Plants small, 3–50 cm tall. Taproot ca. 1.5 cm across, crown semi-woody. Stem single, little-branched, pubescent. Basal leaves pinnate; pinnae 3–4 pairs, ovate or broad-ovate, 3–6 × 2.5–5 cm, 2–3-lobed, both surfaces sparsely pubescent, margins sharply serrate. Cauline leaves similar to the basal, reduced upward. Umbels 4–6 cm across; bracts 4–6, linear-lanceolate, densely pubescent, with narrow membranous margins; rays 4–14, unequal, up to 7 cm, densely pubescent; bracteoles similar to the bracts, connate at the base, nearly as long as umbellule; flowers 20–30 per umbellule. Calyx teeth minute. Petals white. Fruit ovoid-oblong, ca. 10 × 6 mm, puberulent; dorsal and intermediate ribs filiform, raised, lateral ribs narrowly winged; vittae reaching to the base of mericarp. Seed face plane. Fl. and fr. Jul–Aug.

Grassy slopes, meadows; 2000–2300(–3000) m. Xinjiang [Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan].

