

100. SOPHIOPSIS O. E. Schulz in Engler, Pflanzenr. 86(IV. 105): 346. 1924.

羽裂叶芥属 *yu lie ye qi shu*

Herbs annual or biennial. Trichomes finely dendritic, rarely also simple and stalked forked at stem base. Stems erect or ascending, sometimes prostrate, terete. Basal leaves petiolate, not rosulate, simple, 2-pinnatisect. Cauline leaves petiolate or uppermost sessile, 1- or 2-pinnatisect, rarely pinnatifid. Racemes ebracteate, bracteate throughout, or only basally bracteate. Fruiting pedicels erect, ascending, or divaricate. Sepals oblong or ovate-oblong, ascending, base of lateral pair not saccate. Petals yellow, shorter or much longer than sepals; blade obovate or spatulate, apex rounded; claw slightly to strongly differentiated from blade, shorter than to as long as sepals. Stamens 6, slightly tetradynamous; filaments not dilated at base; anthers ovate or oblong, obtuse at apex. Nectar glands confluent and subtending bases of all stamens; median glands present; lateral glands semiannular. Ovules 4–16 per ovary. Fruit dehiscent siliques or silicles, linear, oblong, obovoid, or ellipsoid, terete or slightly 4-angled, sessile or shortly stipitate; valves with an obscure to prominent midvein, glabrous, smooth or subtorulose; replum rounded; septum complete or basally perforated, membranous; style obsolete or short and less than 1 mm; stigma capitate, entire. Seeds uniseriate, wingless, oblong, plump; seed coat minutely reticulate, mucilaginous when wetted; cotyledons incumbent.

Four species: C Asia; two species in China.

- 1a. Fruiting pedicels erect or ascending, often subappressed to rachis, densely pubescent; racemes bracteate at least basally; stems prostrate or rarely ascending; uppermost leaves 1-pinnatisect or pinnatifid; fruit terete; ovules 10–16 per ovary 1. *S. annua*
- 1b. Fruiting pedicels divaricate, not appressed to rachis, glabrous or glabrescent; racemes ebracteate; stems erect or rarely ascending; uppermost leaves 2-pinnatisect; fruit slightly 4-angled; ovules 4–8 per ovary 2. *S. sisymbrioides*

1. *Sophiopsis annua* (Ruprecht) O. E. Schulz in Engler, Pflanzenr. 86(IV. 105): 347. 1924.

中亚羽裂叶芥 *zhong ya yu lie ye qi*

Smelowskia annua Ruprecht, Mém. Acad. Imp. Sci. Saint Pétersbourg, Sér. 7, 14: 4. 1869; *Hutchinsia annua* (Ruprecht) Krassnov; *Sophiopsis annua* var. *fontinalis* O. E. Schulz.

Plants biennial, (4–)10–30(–40) cm tall, uniformly pubescent throughout with minute dendritic trichomes. Stems few to many from base, prostrate or rarely ascending. Basal leaves 2-pinnatisect, with 2–4 lateral lobes; petiole 1–3(–4) cm; leaf blade oblong or ovate in outline, 1–3(–5) cm × 5–10(–15) mm; ultimate segments oblong or obovate, 1–7 × 0.5–2 mm, margin entire, apex obtuse or rounded. Upper cauline leaves 1-pinnatisect or pinnatifid, sessile, smaller than basal leaves. Racemes bracteate throughout or basally. Fruiting pedicels 3–7 mm, slender, erect or ascending, often subappressed to rachis, densely pubescent. Sepals 1.5–2 × 0.7–0.8 mm, sparsely pubescent. Petals yellow or pale yellow, obovate, 2.5–3.5 × 1–1.5 mm, apex rounded, base attenuate to a clawlike base 0.5–1 mm. Filaments 1–1.5 mm; anthers ovate, 0.4–0.5 mm. Ovules 10–16 per ovary. Fruit ellipsoid to linear-ellipsoid, 5–10 × 1–1.8 mm, terete; valves with an obscure midvein, apex acute; style slender, 0.1–0.2 mm; septum complete or basally perforated. Seeds brown, oblong, 1.3–2 × 0.6–1 mm. Fl. Jun–Aug, fr. Jul–Sep.

Gravelly slopes, alpine meadows; 2500–5100 m. Xinjiang, Xizang [Kazakstan, Kyrgyzstan, Tajikistan, Uzbekistan].

The above first record from Xizang is based on *Anonymous 13568* (PE). Although *Sophiopsis annua* was recorded from Xinjiang in

FRPS, the species was not included in Fl. Xinjiang. (vol. 2(2). 1995). There are several collections of the species from Xinjiang, including *Qinghai-Xizang Team 870473* (HNWP, PE).

2. *Sophiopsis sisymbrioides* (Regel & Herder) O. E. Schulz in Engler, Pflanzenr. 86(IV. 105): 346. 1924.

羽裂叶芥 *yu lie ye qi*

Hutchinsia sisymbrioides Regel & Herder, Bull. Soc. Imp. Naturalistes Moscou 39(2): 99. 1866; *Smelowskia alba* B. Fedtschenko (1904), not (Pallas) Regel (1861); *S. sisymbrioides* (Regel & Herder) Lipsky ex Paulsen.

Plants biennial, (7–)12–45(–55) cm tall, uniformly pubescent throughout with minute dendritic trichomes. Stems simple or branched at base, erect or ascending. Basal leaves 2-pinnatisect, with 3 or 4 lateral lobes; petiole 1–3.5(–5) cm; leaf blade oblong or ovate in outline, 2–6(–8) × 0.7–2.5(–3) cm; ultimate segments oblong or obovate, 1–5(–10) × 0.5–2(–5) mm, margin entire, apex obtuse or rounded. Middle and upper cauline leaves 2-pinnatisect, petiolate, smaller than basal leaves, with 1 or 2 lateral lobes. Racemes ebracteate. Fruiting pedicels (4–)6–11(–13) mm, slender, divaricate, glabrous or glabrescent. Sepals 1.5–2(–2.5) × 0.7–0.8 mm, sparsely pubescent. Petals pale yellow, obovate, 2.5–4 × 1–1.5(–1.8) mm, attenuate to a clawlike base 0.5–1 mm, apex rounded. Filaments 1.2–2 mm; anthers ovate, ca. 0.3 mm. Ovules 4–8 per ovary. Fruit obovoid or ellipsoid or narrowly obovoid-ellipsoid, (2.5–)3.5–7 × 1–1.5 mm, slightly 2-angled; valves with a prominent midvein, apex obtuse; style slender, 0.2–0.5 mm; septum complete or basally

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perforated. Seeds brown, oblong, $1.2\text{--}1.5 \times 0.6\text{--}0.8$ mm.
Fl. May–Aug, fr. Jun–Sep.

Slopes, crevices, forests; 1100–3600 m. Xinjiang [Kazakstan,
Tajikistan, Uzbekistan].

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