## 102. SINOSOPHIOPSIS Al-Shehbaz, Novon 10: 340. 2000.

华羽芥属 hua yu jie shu

Herbs annual. Trichomes a mixture of simple and short-stalked, forked. Stems erect, simple or branched at base and above middle, angled, longitudinally striate. Basal leaves withered by anthesis. Cauline leaves petiolate, not auriculate at base, pinnatisect. Racemes many flowered, ebracteate or proximal half bracteate, elongated considerably in fruit. Fruiting pedicels slender, ascending, divaricate, or reflexed. Sepals oblong, caducous, ascending, base of lateral pair not saccate, margin and apex membranous. Petals white, longer than sepals; blade spatulate, apex obtuse; claw distinct, shorter than sepals. Stamens 6, tetradynamous; filaments wingless, not dilated at base; anthers ovate, obtuse at apex. Nectar glands confluent, subtending bases of all stamens; median glands present. Ovules (20–)26–40 per ovary. Fruit dehiscent siliques, linear, terete, not inflated; valves papery, with an obscure midvein, glabrous or sparsely puberulent, strongly torulose; replum rounded; septum complete, membranous, translucent, veinless; style distinct, less than 1 mm, slender, cylindric, glabrous; stigma capitate, entire, unappendaged. Seeds uniseriate, wingless or apically winged, oblong, plump; seed coat coarsely reticulate, mucilaginous when wetted; cotyledons incumbent.

• Two species.

1b. Racemes ebracteate; fruiting pedicels (5-)7-15 mm; seeds apically winged; petals  $4-5 \times 1.5-2$  mm 2. S. heishuiensis

## **1. Sinosophiopsis bartholomewii** Al-Shehbaz, Novon 10: 341. 2000.

华羽芥 hua yu jie

Herbs annual, 13-55 cm tall, sparsely pilose with a mixture of simple and short-stalked, 1-forked trichomes to 1 mm. Stems erect, simple or branched along lower half, longitudinally striate, pilose or glabrescent distally. Basal leaves withered by anthesis. Middle cauline leaves pinnatisect,  $1.5-5.5 \times 0.5-2.5$  cm; petiole 4–13 mm, not auriculate at base; terminal lobe lanceolate or oblong,  $0.7-2 \text{ cm} \times 3-7 \text{ mm}$ , base decurrent with distal pair of lateral lobes, margin dentate, apex acute or subacuminate; lateral lobes 3-5 on each side of midvein, similar to terminal lobe but smaller. Uppermost cauline leaves with axillary flowers, undivided, much smaller than middle leaves, margin entire or denticulate. Racemes bracteate at least along proximal half. Fruiting pedicels ascending or divaricate, 1–3(–4) mm, straight, slender, glabrous or sparsely pilose. Sepals oblong, 1- $1.3 \times 0.4$ –0.6 mm, glabrous or sparsely pilose, not saccate. Petals white, spatulate,  $2-2.5 \times 0.7-1$  mm, base attenuate, apex obtuse; claw shorter than sepals. Median filament pairs 1.5–1.8 mm, lateral pair 1.1–1.3 mm; anthers ovate, ca. 0.2 mm. Ovules (20-)26-36 per ovary. Fruit linear,  $1.5-2.5 \text{ cm} \times 0.8-1 \text{ mm}$ ; valves glabrous or sparsely puberulent; style 0.1–0.3 mm. Seeds brown, oblong,  $0.8-1.1 \times 0.5-0.6$  mm, plump, strongly reticulate, wingless. Fl. and fr. Aug-Sep.

• Slopes with *Picea likiangensis* forest, among shrubs and under trees, disturbed alpine meadows, slopes and riparian areas along river bottoms; 3400–4100 m. Qinghai, Xizang.

**2. Sinosophiopsis heishuiensis** (W. T. Wang) Al-Shehbaz, Novon 10: 341. 2000.

黑水华羽芥 hei shui hua yu jie *Cardamine heishuiensis* W. T. Wang, Acta Bot. Yunnan. 9: 15. 1987.

Herbs annual, 15–45 cm tall, sparsely pilose with a mixture of simple and short-stalked, 1-forked trichomes to 1 mm. Stems erect, several branched along lower half, longitudinally striate, pilose. Basal leaves withered by flowering. Middle cauline leaves pinnatisect, 1.2–4.5  $\times$  1–2.5 cm; petiole 3–15 mm, not auriculate at base; terminal lobe lanceolate, elliptic, or oblong, 0.3–2 cm × 2-12 mm, base decurrent with distal pair of lateral lobes or shortly petiolulate, margin dentate or subentire, apex acute or obtuse; lateral lobes 2-4 on each side of midvein, similar to terminal lobe but smaller. Uppermost cauline leaves much smaller and less divided than middle leaves. Racemes ebracteate. Fruiting pedicels divaricate or reflexed, (0.5–)0.7–1.5 cm, straight, slender, glabrous or sparsely pilose. Sepals oblong,  $1.5-2.3 \times 0.8-1$  mm, glabrous or sparsely pilose, not saccate. Petals white, spatulate,  $4-5 \times 1.5-2$ mm, base attenuate, apex obtuse; claw shorter than sepals. Median filament pairs 2–3 mm, dilated; lateral pair 1-1.5 mm; anthers ovate, 0.4-0.5 mm. Ovules 24-40 per ovary. Fruit linear, 1.5-3 cm  $\times$  0.7-1 mm; valves glabrous; style 0.4-1 mm. Seeds brown, oblong, 1.2- $1.4 \times 0.6 - 0.8$  mm, plump, strongly reticulate, apically winged. Fl. and fr. Jun-Aug.

• Rock crevices; 2100-2500 m. Sichuan.

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