

49. SISYMBRIOPSIS Botschantzev & Tzvelev, Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 21: 143. 1961.

假蒜芥属 *jia suan jie shu*

Herbs annual, biennial, or perennial. Trichomes simple and stalked, 1- or 2-forked or dendritic. Stems erect or ascending, sometimes decumbent. Basal leaves petiolate, not rosulate, simple, pinnately lobed or coarsely dentate, rarely subentire. Cauline leaves petiolate or sessile not auriculate, entire, dentate, or pinnatifid. Racemes several flowered, bracteate or ebracteate. Fruiting pedicels erect, ascending, divaricate, or rarely recurved. Sepals oblong, erect, glabrous or pubescent, base of lateral pair not saccate. Petals white or pink, longer than sepals; blade obovate, spatulate, or oblanceolate, apex obtuse; claw obscurely distinct. Stamens 6, slightly tetradynamous; filaments dilated or not dilated at base; anthers ovate or oblong, apex obtuse or apiculate. Nectar glands confluent and subtending bases of all stamens. Ovules 15–50 per ovary. Fruit dehiscent siliques, linear, latiseptate, ± rectangular in cross section, sessile; valves with a prominent midvein and 2 marginal veins and less prominent, reticulate lateral veins, pubescent or rarely glabrescent, torulose; replum rounded; septum complete; style obsolete or to 1 mm; stigma capitate, entire or 2-lobed. Seeds uniseriate, wingless or distally margined, oblong, slightly flattened; seed coat minutely reticulate, not mucilaginous when wetted; cotyledons obliquely accumbent.

Five species: China, Kyrgyzstan, Tajikistan; four species (three endemic) in China.

1a. Trichomes simple, flattened; petals 6–10 × 3–5 mm; fruiting pedicels 7–18(–25) mm 4. *S. yechengica*

1b. At least some trichomes branched, not flattened; petals 2–4 × 0.6–1.5 mm; fruiting pedicels 0.5–5(–6) mm.

2a. Plants perennial; inflorescence bracteate; anthers apex obtuse 3. *S. shuanghuica*

2b. Plants annual; inflorescence ebracteate; anthers apex apiculate.

3a. Fruit glabrescent or sparsely pubescent with crisped forked trichomes to 0.4 mm; stigma subentire or

slightly 2-lobed; fruiting pedicels stout; sepals sparsely pubescent with crisped forked trichomes 1. *S. mollipila*

3b. Fruit densely villous with straight forked trichomes to 1 mm; stigma deeply 2-lobed; fruiting pedicels

slender; sepals densely villous with straight simple trichomes 2. *S. pamirica*

1. *Sisymbriopsis mollipila* (Maximowicz) Botschantzev, Novosti Sist. Vyssh. Rast. 3: 122. 1966.

绒毛假蒜芥 *rong mao jia suan jie*

Sisymbrium mollipilum Maximowicz, Fl. Tangut. 1: 62. 1889; *Arabidopsis qiranica* Z. X. An; *Microsisymbrium taxkorganicum* Z. X. An; *Neotorularia mollipila* (Maximowicz) Z. X. An; *Stenophragma mollipilum* (Maximowicz) B. Fedtschenko; *Torularia mollipila* (Maximowicz) O. E. Schulz.

Herbs annual or rarely biennial, (3–)18–45(–60) cm tall, pubescent basally with a mixture of simple and 1- or 2-forked, short-stalked trichomes, pubescent apically with crisped forked trichomes or rarely glabrescent. Stems erect, simple or sometimes branched at base. Basal leaves withered by fruiting; petiole (0.5–)1–1.7(–3) cm, strongly flattened at base, ciliate with simple trichomes to 1.5 mm; leaf blade narrowly oblong or linear-lanceolate, (1–)2–4(–7) cm × 2–8(–12) mm, base cuneate, margin coarsely dentate or pinnatifid, apex acuminate. Middle cauline leaves sessile or shortly petiolate, linear to linear-lanceolate, 1.5–5(–8) cm × 1–5(–10) mm, progressively reduced in size upward, margin entire or dentate, apex acuminate. Racemes ebracteate, elongated considerably in fruit. Fruiting pedicels erect, appressed to rachis, straight, stout, (0.5–)1–3(–4) mm. Sepals oblong, (1.5–)2–2.5 × 0.8–1 mm, scarious at margin, sparsely pubescent with crisped trichomes. Petals white or pink, oblanceolate, (2–)2.5–4 × (0.6–)0.9–1.2(–1.5) mm, clawlike base to 1.5 mm,

apex obtuse. Filaments white or pink, (1.5–)2–3 mm; anthers oblong or subovate, (0.3–)0.4–0.6 mm, apiculate. Fruit (1.5–)3–5(–7) cm × 1–1.2 mm, erect, appressed to rachis; valves sparsely pubescent with finely branched, crisped, forked trichomes to 0.4 mm, rarely glabrescent; style obsolete or to 0.6 mm; stigma subentire or slightly 2-lobed. Seeds yellowish brown, oblong, 0.9–1.4 × 0.6–1 mm, slightly compressed, distal margin sometimes with a minute wing. Fl. Jun–Aug, fr. Jul–Sep.

Exposed banks, gravelly steep slopes, flood lands, alluvial plains, sandy or gravelly beaches, mountain valleys, grassy slopes. *Juniperus* woods; 2800–4500 m. Gansu, Qinghai, Xinjiang, Xizang [Kyrgyzstan, Tajikistan].

2. *Sisymbriopsis pamirica* (Y. C. Lan & Z. X. An) Al-Shehbaz et al., Novon 9: 311. 1999.

帕米尔假蒜芥 *pa mi er jia suan jie*

Arabis pamirica Y. C. Lan & Z. X. An, Fl. Xinjiang. 2(2): 375. 1995.

Herbs annual or ?perennial, ca. 30 cm tall, densely villous throughout with straight, 1-forked, stalked and simple trichomes. Stems erect, branched at base and above. Basal leaves unknown; lower and middle cauline leaves shortly petiolate, lanceolate to oblong-lanceolate, 1–3 cm × 4–10 mm, base cuneate, margin coarsely dentate or pinnatifid, apex acuminate. Racemes ebracteate, elongated considerably in fruit. Fruiting pedicels erect, appressed to rachis, straight, slender, 2–4

mm, densely covered with simple and branched trichomes. Sepals oblong, 1.5–2 × ca. 0.5 mm, scarious at margin, densely pubescent with straight simple trichomes. Petals pink, oblanceolate, 2–2.5 × ca. 0.7 mm, attenuate to base, apex obtuse. Filaments pink, 1.2–2 mm; anthers suboblong, ca. 0.5 mm, minutely apiculate. Fruit 3–4.7 cm × 1–1.1 mm, erect, appressed to rachis; valves densely villous with straight, stalked, forked trichomes to 1 mm; style obsolete; stigma deeply 2-lobed. Seeds yellowish brown, oblong, 0.8–1 × 0.6–0.7 mm, slightly compressed. Fl. and fr. Jul.

• About 3700 m. Xinjiang.

3. *Sisymbriopsis shuanghuica* (K. C. Kuan & Z. X. An) Al-Shehbaz et al., *Novon* 9: 311. 1999.

双湖假蒜芥 *shuang hu jia suan jie*

Torularia shuanghuica K. C. Kuan & Z. X. An, *Fl. Xizang*. 2: 404. 1985; *Neotorularia shuanghuica* (K. C. Kuan & Z. X. An) Z. X. An.

Herbs perennial with a slender, simple or branched caudex, (5–)18–45(–60) cm tall, canescent, densely tomentose throughout with short-stalked, dendritic trichomes and fewer 2-forked ones. Stems erect or subdecumbent, branched basally and above. Basal leaves not rosulate; petiole 5–10 mm, not flattened at base, ciliate; leaf blade spatulate or oblanceolate, 0.5–2 cm × 1.5–5 mm, base cuneate, margin coarsely dentate, repand, or entire, apex obtuse or subacute. Middle cauline leaves sessile or shortly petiolate, similar to basal ones but progressively smaller upward. Racemes bracteate at least along proximal half, elongated slightly in fruit. Fruiting pedicels erect, appressed to rachis, straight, slender, 3–5(–6) mm, densely tomentose. Sepals oblong 2–2.5 × ca. 1 mm, scarious at margin, densely pubescent. Petals white or pink, spatulate, 2.5–3.5 × 0.9–1.5 mm, clawlike base to 1 mm, apex obtuse. Filaments pink, 2–3 mm; anthers subovate, 0.4–0.5 mm, apex obtuse. Fruit 1.5–3 cm × 1–1.3 mm, erect, appressed to rachis; valves densely pubescent with finely branched, short-stalked, dendritic trichomes to 0.5 mm; style to 0.5 mm; stigma subentire or slightly 2-lobed. Seeds yellowish brown, oblong, 0.8–1 × 0.5–0.7 mm, slightly compressed. Fl. and fr. Jul.

• Mountain slopes; 4800–4900 m. Xizang.

4. *Sisymbriopsis yechengica* (Z. X. An) Al-Shehbaz et al., *Novon* 9: 312. 1999.

叶城假蒜芥 *ye cheng jia suan jie*

Microsisymbrium yechengicum Z. X. An, *Bull. Bot. Res.*, Harbin 1(1–2): 99. 1981.

Herbs annual or perennial, 15–50 cm tall, glabrescent or sparsely pubescent with flattened, crisped, simple trichomes to 0.7 mm. Stems erect or subdecumbent, simple or many branched at base. Basal leaves withered by fruiting, not rosulate; petiole 0.5–3 cm, not flattened

at base; leaf blade narrowly oblong or linear-lanceolate, 2–4 cm × 1–5 mm, base cuneate, margin coarsely dentate or pinnatifid and lobes to 5 × 1 mm, rarely subentire, apex acuminate. Middle cauline leaves sessile to petiolate, similar to basal leaves but progressively reduced in size upward, 3–7 cm × 2–6 mm, margin entire or dentate, apex acuminate.

Racemes ebracteate, elongated considerably in fruit. Fruiting pedicels divaricate or ascending, recurved or straight, slender, 0.7–1.8(–2.5) cm, glabrescent or sparsely with crisped, simple trichomes. Sepals oblong, 3–4 × 1.5–2 mm, scarious at margin, glabrous. Petals white or pink, obovate, 6–10 × 3–5 mm, apex obtuse; claw 1–2 mm. Filaments white, 2.5–3.5 mm; anthers narrowly oblong, 0.9–1.1 mm, apex obtuse. Fruit (1.5–) 2.5–4 cm × 1–1.2 mm, widely spreading; valves glabrescent, rarely sparsely with crisped simple trichomes to 0.5 mm; style 0.4–0.6(–0.9) mm; stigma entire. Seeds yellowish brown, oblong, 1.2–1.7 × 0.8–1 mm, slightly compressed, distal margin with a minute wing. Fl. Jun–Jul, fr. Jul–Aug.

• Grasslands, mountain slopes, steep rocky river banks; 2500–3000 m. Xinjiang.

The single paratype cited in the protologue of *Microsisymbrium yechengicum* is a specimen of *Chorispora sibirica*.

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