

35. **BUNIAS** Linnaeus, Sp. Pl. 2: 669. 1753.

匙荠属 *chi qi shu*

Herbs annual, biennial, or perennial with a caudex. Trichomes stalked forked and/or simple; glandular multicellular papillae present or absent. Basal leaves petiolate, often not rosulate, simple, entire, pinnatifid, or lyrate. Cauline leaves sessile or subsessile above, cuneate, attenuate, or auriculate, entire or dentate. Racemes ebracteate, elongated in fruit. Fruiting pedicels divaricate. Sepals oblong, ascending or spreading, base of lateral pair not saccate, margin membranous. Petals yellow or white, ascending, longer than sepals; blade obovate, apex obtuse; claw distinct. Stamens 6, tetradynamous; filaments dilated or not at base; anthers ovate or oblong, obtuse at apex. Nectar glands confluent and subtending bases of all stamens; median glands present. Ovules 2–4 per ovary. Fruit indehiscent, woody, nutletlike silicles, oblong, ovoid, or subglobose, terete, 4-angled, or with 4 cristate wings, sessile, readily detached from pedicel, 1–4-loculed; replum not distinct; septum subwoody or absent; style obsolete or slender and to 6 mm, filiform or subconical; stigma capitate, entire. Seeds wingless, oblong, suborbicular, or ovoid, plump or flattened; seed coat smooth; cotyledons spirolobal.

Three species: N Africa, E and SW Asia, Europe; two species in China.

- 1a. Plants with stalked forked trichomes; glandular papillae present; cauline leaves not auriculate; petals yellow, 5–8 × (2–)3–5 mm; seeds plump 1. *B. orientalis*
- 1b. Plants glabrous or with simple trichomes; glandular papillae absent; cauline leaves auriculate; petals white, 3–4 × 1.5–2 mm; seeds flattened 2. *B. cochlearioides*

1. **Bunias orientalis** Linnaeus, Sp. Pl. 2: 670. 1753.

疣果匙荠 *you guo chi qi*

Herbs biennial or perennial, (25–)40–100(–150) cm tall, sparsely to densely pilose with simple and stalked forked trichomes; multicellular glandular tubercles present throughout except for flowers. Stems branched above or rarely basally. Basal leaves with petioles (1–)2–10(–15) cm; leaf blade lanceolate, to 40 × 14 cm, coarsely dentate or pinnatifid; lateral lobes oblong or lanceolate, smaller than deltoid or lanceolate terminal lobe. Uppermost leaves subsessile, lanceolate or sublinear, dentate or entire. Fruiting pedicels 1–2(–2.3) cm, slender, divaricate, straight. Sepals yellowish, oblong, 2.5–3 × 1–1.5 mm, spreading, glabrous. Petals yellow, obovate, (5–)6–7(–8) × (2–) 3–5 mm; claw slender, 1–2 mm. Filaments yellowish, 1.5–3.5 mm, strongly tetradynamous, not dilated at base; anthers oblong, 0.8–1 mm. Fruit ovoid, rarely suboblong and slightly constricted at middle, terete, (5–)6–8 × 3–4(–5) mm, glabrous, woody, gradually tapering to apex, tuberculate, 1- or 2-loculed; valves not distinct; style obsolete or rarely to 0.5 mm; stigma entire. Seeds 2 per fruit, subglobose, plump, 2–2.5 mm in diam. Fl. and fr. May–Jul. $2n = 14$.

Fields. Heilongjiang, Liaoning [Kazakstan, Mongolia, Russia; SW Asia, Europe; introduced elsewhere].

2.5 cm. Cauline leaves oblong or lanceolate, 0.7–3.5 cm × 2–15 mm, sessile, auriculate, margin dentate, repand, or subentire, apex obtuse to subacute. Fruiting pedicels 4–8(–10) mm, slender, divaricate or slightly recurved, straight. Sepals pale green, oblong, 1.4–1.7 × 0.7–1 mm, spreading, glabrous. Petals white, obovate, 3–4 × 1.5–2 mm; claw slender, 0.5–1 mm. Filaments white, 1.2–1.6 mm, dilated at base; anthers ovate, 0.3–0.5 mm. Fruit ovoid or subglobose, usually quadrangular, 3–5 × 1.7–3 mm, glabrous, woody, tapering to apex; valves flat, smooth; style obsolete or rarely to 0.3 mm; stigma entire. Seeds 2, oblong or suborbicular, flattened, 1.2–1.5 × 1–1.2 mm. Fl. and fr. May–Jul.

Sandy deserts, grasslands, steppe, meadows. Hebei, Heilongjiang, Liaoning [Kazakstan, Mongolia, Russia].

2. **Bunias cochlearioides** Murray, Comment. Goetting. 8: 42. 1777.

匙荠 *chi qi*

Bunias tcheliensis Debeaux.

Herbs annual or perhaps biennial, 9–40 cm tall, glabrous throughout or rarely sparsely pilose, multicellular glandular tubercles absent. Stems branched near base and above. Basal leaves withered by fruiting; petiole 0.5–2.5 cm, expanded at base; leaf blade pinnatifid, lyrate, or coarsely dentate, 2–10 × 0.5–

