

**66. MATTHIOLA R.** Brown in W. T. Aiton, *Hortus Kew.* 4: 119. 1812, nom. cons.

紫罗兰属 *zi luo lan shu*

Herbs annual or perennial. Trichomes eglandular, stalked or sessile, stellate or dendritic, rarely forked or simple, sometimes mixed with glandular, multicellular, multiseriate ones. Basal leaves petiolate, rosulate or not, simple, entire, dentate, or pinnatisect. Cauline leaves petiolate or sessile and not auriculate, entire, dentate, or pinnatisect. Racemes ebracteate, elongated in fruit. Fruiting pedicels erect or divaricate. Sepals oblong or linear, connivent, erect, base of lateral pair strongly saccate. Petals yellowish green, white, pink, purple, or brown, much longer than sepals, clawed; blade broadly obovate, spatulate, oblong, or linear, flat or involute, crisped or not, apex obtuse or emarginate. Stamens 6, strongly tetradynamous; filaments not dilated at base; anthers oblong or linear, obtuse at apex. Nectar glands lateral, 4, when 1 on each side of lateral stamen, or 2, when semiannular and intrastaminal; median glands absent. Ovules (5–)15–60 per ovary. Fruit dehiscent siliques, linear, terete or latiseptate, sessile; valves with a prominent midvein, often torulose; replum rounded; septum complete, often opaque, veinless; style obsolete or up to 3 mm; stigma conical, 2-lobed, lobes prominent, connivent, free or connate, decurrent, unappendaged or with 2 or 3 hornlike appendages. Seeds uniseriate, narrowly winged or wingless, oblong, ovate, or orbicular, flattened; seed coat minutely reticulate, not mucilaginous when wetted; cotyledons accumbent.

About 50 species: E and N Africa, Asia, Europe; one species in China.

*Matthiola incana* (Linnaeus) R. Brown is widely cultivated as an ornamental in China, but it is not known to have become naturalized.

**1. *Matthiola chorassanica*** Bunge ex Boissier, *Fl. Orient.* 1: 151. 1867.

伊朗紫罗兰 *yi lang zi luo lan*

*Matthiola flavida* Boissier var. *integrifolia* (Komarov) O. E. Schulz; *M. integrifolia* Komarov; *M. tenera* K. H. Rechinger.

Herbs perennial, (10–)15–45(–53) cm tall, eglandular, tomentose throughout, with finely branched dendritic trichomes; caudex simple or branched. Stems erect, branched from caudex, sometimes also above. Basal leaves subrosulate; petiole (0.5–) 1–3(–5) cm; leaf blade ovate, narrowly oblong, or elliptic, (1–) 2–4.5(–6) × (0.3–)0.5–1.8(–2.4) cm, base cuneate, margin entire, repand, or coarsely dentate, rarely sinuate or pinnatifid, apex acute or obtuse. Cauline leaves few to many, similar to basal, uppermost much narrower and subsessile. Fruiting pedicels (1–)2–6(–10) mm, stout or slender, divaricate or ascending. Sepals linear, 8–12 × 1–1.5, tomentose. Petals greenish, brown, or purplish; limb linear, circinate involute, crisped, 0.9–1.4 cm × 1.2–1.5 mm, apex obtuse; claw flattened, 0.8–1.2 cm. Median filament pairs 6–8 mm, lateral pair 3–4 mm; anthers linear, ca. 2.5 mm. Fruit narrowly linear, (6–)7–11 cm × (1.5–)1.8–2.7 mm, flattened, torulose; valves tomentose, with a prominent midvein; style obsolete or to 1 mm; stigma conical, lobes broad. Seeds 2–2.5 × 1.7–2 mm; wing ca. 0.5 mm. Fl. Jun–Jul, fr. Jul–Aug.  $2n = 12$ .

Rocky slopes; 900–3900 m. Xinjiang, Xizang [Afghanistan, Pakistan, Tajikistan, Uzbekistan; SW Asia].

The above first record from China is based on *Schlagintweit 1375* (P), *Schlagintweit 1485* (GH), *Winterbottom 712* (K), *Falconer 138* (GH, P), and *Thomson s.n.* (E, K, P), all of which are from Xizang, as well as *Team P-041* (PE) from Xinjiang. The alleged differences between *M. chorassanica* and the synonyms listed above are based entirely on whether the cauline leaves are borne along the entire stem or are nearly basal, and whether they are entire, repand, or dentate. All of

these characters show continuous variation, and there are no other differences that separate the taxa. Jafri (*Fl. West Pakistan* 55: 202. 1973) wrongly cited one of the above specimens, *Winterbottom 712*, as *M. flavida* Boissier, but that species has flat petals instead of the circinate involute ones that are characteristic of *M. chorassanica*.

The record from Xinjiang (*Fl. Xinjiang.* (2)(2): 164. 1995) of *Matthiola odoratissima* (Pallas ex Marschall von Bieberstein) R. Brown, which is endemic to the Caucasus and neighboring areas, is based on misidentified plants of *M. chorassanica*.

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