

5. **ERUCA** Miller, Gard. Dict., Abr. ed. 4, 1: [472]. 1754.

芝麻菜属 zhi ma cai shu

Herbs annual or perennial. Trichomes absent or simple. Stems erect or ascending, leafy or leafless. Basal leaves petiolate, rosulate or not, simple, often lyrate-pinnatifid, rarely bipinnatisect or dentate. Cauline leaves petiolate or sessile, not auriculate, entire, dentate, or lyrate-pinnatifid, sometimes absent. Racemes ebracteate, elongated considerably in fruit. Fruiting pedicels erect or ascending and subappressed to rachis, rarely divaricate. Sepals oblong or linear, deciduous or rarely persistent, erect, base of lateral pair saccate. Petals cream or yellow with dark brown or purple veins, or entire blade purple; blade broadly obovate or oblanceolate, rounded or emarginate; claw subequaling or longer than sepals. Stamens 6, strongly tetradynamous; anthers oblong or linear, obtuse at apex. Nectar glands 4 or 2; lateral pair prismatic; median pair ovoid or oblong, or absent. Ovules 10–50 per ovary. Fruit siliques or silicles, linear, oblong, or ellipsoid, terete or 4-angled, sessile, segmented; valvular segment dehiscent, many seeded; valves smooth, leathery, with a prominent midvein; terminal segment indehiscent, seedless, flattened and ensiform, or 4-angled, shorter or longer than valves; replum rounded; septum complete, membranous; style obsolete; stigma conical, 2-lobed, lobes connivent, decurrent. Seeds biseriata, wingless, globose or ovoid, plump; seed coat minutely reticulate, mucilaginous when wetted; cotyledons conduplicate.

One species: NW Africa, Asia, Europe, naturalized elsewhere.

1. ***Eruca vesicaria*** (Linnaeus) Cavanilles subsp. ***sativa*** (Miller) Thellung in Hegi, Ill. Fl. Mitt.-Eur. 4(1): 201. 1918.

芝麻菜 zhi ma cai

Eruca sativa Miller, Gard. Dict., ed. 8, *Eruca* no. 1. 1768; *Brassica eruca* Linnaeus; *E. cappadocica* Reuter var. *eriocarpa* Boissier; *E. lativalvis* Boissier; *E. sativa* var. *eriocarpa* (Boissier) Post.

Herbs annual, (10–)20–80(–100) cm tall, glabrous or retrorsely hirsute or hispid. Stems erect, usually branched above. Basal leaves not rosulate, often withered by fruiting time; petiole (1–)2–5(–7) cm; leaf blade dentate, lyrate, pinnatifid, pinnatisect, or bipinnatisect, (2–)4–15(–20) × (1–)2–4(–6) cm; terminal lobe suborbicular or broadly ovate, margin dentate or entire; lateral lobes (2 or)3–9 on each side of midvein, oblong or oblong-ovate, margin pinnatifid, pinnatisect, dentate, or entire. Upper cauline leaves subsessile; leaf blade lobed or not. Fruiting pedicels 2–7(–10) mm, slightly thickened, erect or ascending, appressed or subappressed to rachis. Sepals often purplish, oblong, (6–)7–10(–12) × 1.5–2.2 mm, glabrous or hairy, deciduous, weakly cucullate or not. Petals yellow turning white, with dark brown or purplish veins, broadly obovate or spatulate, (1.2–)1.5–2(–2.6) cm × (4–)5–7(–9) mm, apex rounded; claw as long as sepals or slightly longer. Lateral filaments (5–)7–11 mm; median filaments (8–)10–13(–15) mm; anthers narrowly oblong, 2–3 mm. Fruit linear, oblong, or ellipsoid, (1.1–)1.5–3.5(–4) cm × (2.5–)3–5 mm, glabrous or retrorsely hispid or hirsute; valves (0.7–)1–2.5(–3.2) mm, with a prominent midvein; terminal segment ensiform, (4–)5–10(–11) mm, 5-veined, as long as or slightly shorter than valves. Seeds brown, globose or ovoid, 1.5–2.5 mm in diam. Fl. May–Jul, fr. Jun–Aug. $2n = 22^*$.

Waste areas, fields, roadsides, slopes; near sea level to 3800 m. Gansu, Guangdong, Hebei, Heilongjiang, Jiangsu, Liaoning, Nei Mongol, Qinghai, Shaanxi, Shanxi, Sichuan, Xinjiang [Afghanistan, India, Kazakstan, Kyrgyzstan, Mongolia, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan; NW Africa, SW Asia, Europe; naturalized elsewhere].

Eruca vesicaria subsp. *vesicaria* is endemic to Spain and NW Africa and is distinguished by having persistent, strongly cucullate sepals. Forms with retrorsely hirsute fruit were recognized in FRPS and some other provincial floras as *Eruca sativa* var. *eriocarpa*, but these always occur with glabrous forms in the same population and throughout the naturalized or native ranges of the species. Therefore, no infraspecific taxa merit recognition.

Widely cultivated in Asia for seed oil which is used as an illuminant, lubricant, and for pickling. The seed oil is one of the richest sources of erucic acid, which is important in industry. The young plants are medicinal and used as a stimulant, antiscorbutic, stomachic, and diuretic. The species is a naturalized weed worldwide, but it is extensively cultivated in Europe and North America as a salad plant.

