

Lepidium L. PEPPERGRASS

Lepidium latifolium L., PERENNIAL PEPPERGRASS, BROAD-LEAVED PEPPERGRASS, PERENNIAL PEPPERWEED. Perennial herb, thick-taprooted, rosetted, several–many-stemmed at base, branching throughout but especially within canopy from every node, ascending to erect, 60–120(–200) cm tall; shoot with basal leaves and cauline leaves, villous to ± glabrous in canopy, the hairs unbranched; taproot deep-seated, in perennial the top often > 100 mm belowground, 10–30+ mm thick, giving rise to vertical shoots from upper 1/3, bark tight, orange-brown, core (wood) firm like carrot, whitish. **Stems:** slightly ridged, to 12 mm diameter, with 2 ridges descending from each leaf, light green, ± glossy, glabrous or sometimes strigose-pubescent at base; bark forming at base, tannish, with inconspicuous vertical stripes. **Leaves:** helically alternate, simple, petiolate (basal and lower cauline leaves) to sessile (upper cauline leaves), without stipules; petiole of basal leaves groove-channeled, 90–130 mm long, pubescent, of cauline leaves ± hemi-cylindric to broadly U-shaped, 0–10 mm long; blade of basal leaves elliptic to oblong or broadly lanceolate, 60–240 × 35–120 mm, broadly tapered or truncate at base, serrate to dentate or crenate on margins, acute at tip, pinnately veined with midrib raised on lower surface (typically not on upper surface), lateral veins raised slightly on both surfaces, sparsely pubescent to villous; blade of cauline leaves narrowly ovate to lanceolate or elliptic, 25–175 × 10–80 mm, long-tapered to broadly-tapered at base, serrate to crenate on margins, acute at tip, pinnately veined, glabrous to short-villous. **Inflorescence:** panicle of racemes, terminal, ± densely flowered at tips of branches, ± flat-topped with open flowers overtopping buds, many-flowered; bract subtending panicle and each branch and raceme leaflike, sessile, ovate to lanceolate and reduced upward, typically glabrous; rachis glabrous to sparsely puberulent; pedicel ascending, at anthesis 3–4 mm long increasing slightly in fruit. **Flower:** bisexual, radial, 3 mm across, mildly honey-scented; **sepals** 4, monomorphic, obovate, 0.9–1.4 × 0.6–1.3 mm, green at center, rose-purple outwardly, white and petal-like on margins, with unbranched hairs at center and base; **petals** 4, narrowly clawed, round above claw, 1.3–2(–2.3) × 1–1.2 mm long, white; **stamens** 6, slightly dimorphic with outer 2 short and partially cupped by sepals and inner 4 slightly longer; filaments 1–1.7 mm long, white; anthers dorsifixed, dithecal, oblong, 0.4–0.5 mm long, light yellow, longitudinally dehiscent; pollen yellow; **nectaries** 6, alternating with bases of stamens, nipplelike, 0.1 mm long, greenish yellow; **pistil** 1; ovary superior, circular to broadly ovoid, at anthesis ca. 1 mm diameter, rose to reddish, flattened ⊥ to septum but slightly inflated, with scattered villous hairs, 2-chambered, each chamber with 1 ovule; style ± 0.1 mm long; stigma capitate, ± 0.3 mm diameter, densely papillate. **Fruit:** siliqua (silicle), dehiscent by 2 valves, 1–2-seeded, round, 2.2–2.4 × 2–2.3 mm, slightly inflated, notch at tip absent, sparsely villous. **Seed:** compressed ovoid, 1–1.2 × 0.7 mm, orange-brown. Early May–mid-October.

Naturalized. Perennial herb now widely established and invasive especially near the coastline in disturbed habitats, and elsewhere at scattered localities. In *Lepidium latifolium*, the thick taproots break off when pulled, and they recover by forming new shoots from deeper buds, so an herbicide may be sprayed to kill the plants. After forming a basal rosette, each plant produces abundant foliage; on the upper half of the plant each

leafy, cauline branch forms a panicle, and each raceme forms dozens of flowers. The two segments of the fruit separate from the septum, but frequently only one contains a seed.
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