

Lepidium strictum (S. Watson) Rattan, UPRIGHT PEPPERGRASS, PROSTRATE PEPPERGRASS. Annual, taprooted, rosetted, several-stemmed at base, prostrate with ascending to spreading inflorescences, 1.5–12 cm tall, height < width; shoots with basal leaves and cauline leaves (not clasping), rosette to 55 mm across, basal leaves mostly absent at flowering, leaves essentially glabrous, axes short-hirsute with straight, stout, unbranched hairs. **Stems:** cylindric, < 2 mm diameter, tough. **Leaves:** helically alternate, 1–2-pinnately lobed and petiolate with 2–4 pairs of lateral lobes + terminal lobe (basal leaves) and ± unlobed and petiolate or sessile (cauline leaves), without stipules; petiole flattened top-to-bottom, short-20 mm long × to 1.3 mm; blade of basal leaves oblong in outline, to 30 × 15 mm, with flattened axis like petiole, paired lateral lobes subequal and ± mirror images, asymmetric and unlobed or 2–3-lobed, terminal lobe of blade oblanceolate to obovate and often mittenlike with 1 small sublobe above midpoint, blunt acute to obtuse or rounded with a minute, white, hairlike point at tips, pinnately veined, with occasional short hairs mostly on margins; blades of cauline leaves mostly linear and unlobed or with 3 teeth at tip, 2–15 × 0.4–0.8 mm. **Inflorescence:** raceme, terminal, to 2 mm diameter at tip and inconspicuously flat-topped with open flowers slightly overtopping buds, usually with 25+ closely spaced flowers, lacking bracts; rachis conspicuously short-hirsute; pedicel ascending to suberect at anthesis, flat on upper surface, 0.7 mm long increasing slightly and ascending in fruit appearing hemi-cylindric with flat upper surface but not appearing winged, short-hairy. **Flower:** bisexual, radial, ca. 0.5 mm across; **sepals** 4, in 2 sets, pair opposite edges of ovary oblong boat-shaped and slightly hooded, 0.45–0.8 × 0.3–0.4 mm and pair opposite flat faces of ovary oblong to ovate or ± elliptic and slightly hooded, 0.6–0.8 × 0.4–0.5 mm, green with narrow membranous margins often reddish or purplish red above midpoint, 3-veined from base and veins reddish, outer pair with several short, stout hairs at least in bud, inner pair with midridge; **petals** absent or 4, alternate with sepals, narrowly oblanceolate to awl-shaped or lanceolate, 0.25–0.4 × 0.05–0.1 mm, whitish, persistent and appressed to developing fruit; **stamens** 2 (fertile) and in range 4 filaments with aborted anthers, with sterile stamens flanking fertile stamen, concealed by sepals opposite flat face of ovary; filaments 0.5–0.6 mm long, white; anthers basifixed, dithecal, oblong to compressed-spheroid, 0.15–0.2 × 0.1–0.15 mm, yellowish, longitudinally dehiscent; pollen light yellow; **nectaries** absent; **pistil** 1; ovary superior, roundish with short notch, 0.65–0.75 × 0.65–0.85 mm, green, notch 0.15–0.2 mm deep, surfaces smooth and glabrous, 2-chambered, each chamber with 1 ovule; style 0.05–0.13 mm long; stigma included in notched, 0.05–0.1 × 0.13–0.2 mm, whitish, papillate. **Fruit:** silicle, dehiscent with 2 1-seeded D-shaped valves separating from septum (plenum), valves roundish, 2.1–2.7 × 2–2.4 mm (aborted fruits smaller), with notch 0.3–0.4 mm deep, green and smooth (immature) becoming tan to light grayish yellow, thin-papery, and net-veined when abscised and dry; plenum persistent on pedicel with persistent short style; sepals persistent until valves abscise. Seed: compressed-ellipsoid to compressed-obovoid or D-shaped (edge next to septum straight), in range 1.4–1.5 × 0.9–1 × 0.4–0.6 mm, golden buff to bronze-yellow, with outline of curved embryo clearly visible; mucilaginous when wetted. April–early June.

Native. Annual occurring in several waste areas notably on unpaved paths and clearings

near residents, often in dense local patches. *Lepidium strictum* has pinnately divided basal leaves that initially form a basal rosette, but these basal leaves are usually not present after flowering commences, and the fruiting plant has mainly entire leaves, which are essentially glabrous. Axes are short-hirsute. The tiny flower has sepals with narrow, purplish margins, one pair on the ovary edges and the other pair on the ovary faces. Peeling back each sepal on an ovary face reveals one fertile stamen flanked by a pair of filaments (sterile stamens) flanked usually by a pair of shorter, rudimentary petals. Sepals generally are persistent until the valves separate from the septum. Fruits appear smooth until the valves dry, when an elaborate network of veins is revealed on the surface of the valve.

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