

Euthamia (Nutt.) Cass. GRASS-LEAVED GOLDENROD, GOLDENTOP

Euthamia occidentalis Nutt., WESTERN GOLDENTOP, WESTERN GOLDENROD. Perennial herb, rhizomatous, thick fibrous-rooted, many-stemmed at base, branched above midplant with ascending principal shoots, erect, 60–200+ cm tall; shoots gland-dotted, ± glutinous (especially when in full sun), not aromatic; rhizome deep-seated, to 10 mm diameter. **Stems:** nearly cylindrical, to 10 mm diameter, shallowly ridged from decurrent leaves, green, glabrous. **Leaves:** helically alternate, simple, sessile, without stipules; blade typically linear, 15–110 × 1.5–7.5(–9) mm, the largest at midplant, minutely scabrous on margins, acuminate at tip, with parallel-like venation of 3–5 conspicuous veins, upper surface minutely puberulent near base. **Inflorescence:** heads, in terminal, ± flat-topped or elongate, paniclelike arrays, array many-headed, with heads on thin, ascending branches, head radiate, 3.5–4.5 mm across, with (10–)15–25(–28) ray flowers and 6–15(–18) disc flowers, bracteate, glutinous; bracts at base of paniclelike cluster, along axes, and subtending peduncle leaflike, linear to awl-shaped, 3.5–10 mm long; peduncle suberect, 4–25 mm long, with bracts 6–15 along axis, the bracts appressed to ascending, awl-shaped, 1.5–3 mm long, green, typically closely positioned and partially sheathing axis; **involucre** narrowly inversely conic to subcylindric, (3–)4.5–6 × 2–3 mm, phyllaries ± 25 in 4–5 series, overlapping, 1–4.5 mm long, firm, with conspicuous midvein pale aging brownish, outer phyllaries lanceolate, short, greenish, acute at tip, inner phyllaries linear, > outer phyllaries, scarious, acute to acuminate and greenish at tip; receptacle convex, lacking bractlets (paleae), with minute pits and having crownlike rims around ovaries. **Ray flower:** pistillate, < 1 mm across; **calyx (pappus)** of 20–25(–40) capillary bristles in 1 whorl, 3–3.5 mm long, white, minutely barbed; **corolla** minutely 3-toothed, yellow; tube 2–2.5 mm long; limb spreading, strap-shaped, 1.5–2(–2.5) × < 0.6 mm; **pistil** 1; ovary inferior, narrowly inversely conic, ± 0.8 mm long, densely strigose, 1-chambered with 1 ovule; style 2.5–3 mm long, 2-branched, the branches exserted, tapered, ca. 0.5 mm long, appearing smooth. **Disc flower:** bisexual, radial, 1 mm across; **calyx (pappus)** of 24–29 capillary bristles in 1 whorl, 3.5–4 mm long, white, minutely barbed; **corolla** 5-lobed, 3.5–4 mm long, yellow; tube 1.5 × 0.4 mm; throat ± 1 × 0.7 mm, narrowed (sometimes abruptly) into tube; lobes equal, 1.5 mm long, at anthesis arching outward, becoming orange on margins; **stamens** 5; filaments fused to corolla at base of throat; anthers fused into cylinder surrounding style, basifixed, dithecal, ca. 1.5 mm long, yellow, with terminal appendage, the appendages acuminate-deltate, < 0.5 mm long, longitudinally dehiscent; pollen dark yellow; **pistil** 1; ovary inferior, narrowly inversely conic, ± 0.8 mm long, densely strigose, 1-chambered with 1 ovule; style 4.5–5 mm long, 2-branched, the branches exserted, 0.9 mm long, densely papillate on outer surface of acute above midpoint. **Fruits:** cypselsae, narrowly inversely conic and slightly compressed, 3.7–4.6 mm long, 0.8–1 wide at top, light tan, finely strigose with hairs < 0.5 mm long; pappus of thickish capillary bristles, mostly 4–6 mm long (a few as short as 2.5 mm), very pale straw-colored to whitish, with minute ascending hairs. Late July–early November.

Native. A tall, narrow-leaved herbaceous perennial found in ever-wet places, especially in wet meadows and drainage ditches, and notably along creek banks in the western and central portions of the range, where it can form dense stands. Western goldenrod, formerly

treated as a species of *Solidago*, may seem like several other, narrow-leaved creekside plants until it flowers in late summer, with its clusters of small heads with yellow flowers. *Euthamia occidentalis* becomes excessively resinous after it is collected, especially when placed into a plastic bag or prepared for an herbarium specimen.

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