

Vascular Plants of Williamson County
Solidago nemoralis – GRAY GOLDENROD [Asteraceae]

Solidago nemoralis Aiton (if recognized, includes var. *decemiflora* and var. *longipetiolata*), GRAY GOLDENROD. Perennial herb, with caudex, not rosetted, several-stemmed at base, branches ascending, in range to 45 cm tall; shoots with only cauline leaves, along principal axis with unexpanded axillary shoots having smaller leaves. **Stems:** inconspicuously ridged, to 6 mm diameter, with 3 low ridges descending from each leaf, tough, striped green and red, short-hairy with mostly upward-pointing hairs. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole flared and sheathing at base, flat, to 5 mm long, indistinct from blade; blade linear-oblongate to linear-lanceolate or narrowly elliptic, 11–105 × 2–10 mm, long-tapered at base, entire or with remote callus-tipped teeth above midblade, acute at tip, several-veined at base pinnately veined with midrib raised on lower surface, short-strigose with upward-pointing hairs, lower surface with minor veins darker and glossy (often sunken). **Inflorescence:** heads, in terminal, paniclelike array with racemelike axillary, lateral branches, the lower branches to 100 mm long with leaves from base sometime to above midpoint and upper branches mostly lacking leaves, flowering portion < 30–60 mm long, heads along axis arching outward with heads on upper side, head ca. 3 mm across, bract subtending lateral branch half-sheathing, oblongate, to 15–2.5 mm, 3-veined at base (purplish), when young with conspicuous purple-red midvein, with exaggerated bump near base, entire, blunt-acute, short-hairy; lateral axes arching, several-ridged, with 3 ridges descending from each bract; peduncle ± cylindrical, 2.5–5 mm long, densely short-hairy, the bracts along peduncle awl-shaped, 1–1.4 mm long, greenish grading to yellow at top, short-ciliate on margins; **involucre** bell-shaped, 3 mm across, phyllaries ca. 27 in several series, yellow, short-ciliate on exposed margins; outer phyllaries ovate rounded at tip, 2 × 0.8–1 mm, yellowish with colorless, short-ciliate margins; middle phyllaries ovate to elliptic, 2.6–4 × 1–1.2 mm, obtuse at tip; inner phyllaries narrowly oblongate, ca. 5 × 0.7 mm, blunt-acute at tip; receptacle lacking bractlets (paleae), with colorless, crownlike teeth surrounding each ovary, glabrous. **Disc flower:** radial, < 1 mm across; **calyx (pappus)** of 25–30 capillary bristles, bristles 4–5 mm long, soft; **corolla** 5-lobed, 5 mm long; tube cylindrical, 1 × 0.45 mm, whitish, glabrous; throat narrowly funnel-shaped, yellowish; lobes ± adherent, triangular, 1–1.2 mm long, yellow; **stamens** 5, attached at top of corolla tube; filaments 1.5 mm long, yellow; anthers fused into cylinder surrounding style, basifixed, dithecal, 1.5 mm long including triangular appendages 0.5 mm long, golden yellow, longitudinally dehiscent; pollen golden-yellow; **pistil** 1; ovary inferior, wedge-shaped, 1 mm long, whitish, densely short-hairy, 1-chambered with 1 ovule; **nectary disc** surrounding base of style, to 0.1 mm long (diminutive), greenish; style 4 mm long, 2-branched, white at base and yellowish above midpoint, the stigmatic branches 1 mm long, yellow, papillate. **Fruits:** cypselae (achenes) top-shaped, 0.8–1 mm long, brown, densely covered by appressed, straight hirsute hairs; persistent corolla having throat with 5 ribs; pappus capillary bristles ascending, ca. 4 mm long, somewhat wavy.

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