

*Solidago velutina* DC. subsp. *californica* (Nutt.) Semple, CALIFORNIA GOLDENROD.

Perennial herb, clonal, rhizomatous, fibrous-rooted, ± rosetted, 1–several-stemmed at base and arising from rhizome, clump-forming, typically unbranched above ground level, ascending to erect, 20–120(–150) cm tall; shoots with basal leaves and cauline leaves, densely canescent to short-tomentose; rhizomes horizontal, to 3 mm diameter, with brown bark, having purple buds in leaf litter. **Stems:** cylindrical, to 4 mm diameter, striped or not, easily snapped. **Leaves:** helically alternate, simple, short-petiolate (basal leaves) and sessile (cauline leaves), without stipules; petiole winged, indistinct from tapered blade; blade elliptic to obovate or oblanceolate, 30–140 × 10–25 mm (lower leaves) decreasing markedly at midstem, of upper leaves 8–30 × 3–8 mm, long-tapered at base, entire to serrate above midpoint and ciliate on margins, acute to acuminate at tip, with conspicuous midrib and 2 lateral veins diverging from lower 1/3, canescent, lower surface with conspicuous netlike venation. **Inflorescence:** heads, in terminal, simple or compound arrays, the simple ones erect and narrowly conic or arching and 1-sided with lateral cymelike clusters restricted to 1 side of main axis (thyrselike), the compound ones with several 1-sided branches and many-headed, head radiate, (3–)5–6(–7) mm wide, with 11–15 ray flowers and 7–10 disc flowers, bracteate, pubescent like shoot; bract subtending peduncle leaflike, 6–7 mm long; peduncle slender, 2.5–6 mm long, pubescent, with 1–4 bracts along axis, the bracts awl-shaped, < 2 mm long; **involucre** ± cylindrical, 3.4–4 × 2.2–2.5 mm becoming bell-shaped and wider in fruit, phyllaries 25–28(–30) in several series, unequal, ± narrowly elliptic to narrowly oblanceolate or linear, 1–4 × 0.6–0.9 mm, inner phyllaries > outer phyllaries, green, with serrate, wide-scarious margins below greenish tip, acute and fringed to jagged at tip, 1-veined, outer phyllaries with scattered soft hairs, inner phyllaries ± glabrous; receptacle slightly convex, without bractlets (paleae), pitted. **Ray flower:** pistillate, bilateral, 1 mm across; **calyx (pappus)** of ca. 30 slender bristles in 1 whorl, 2.5–3 mm long, with ascending short projections; **corolla** strap-shaped, 3–5 mm long, yellow; tube ± 1.8 mm long; limb ± 2.5 mm long, ± truncate and without conspicuous teeth at tip or minutely 2-toothed, prone to coiling; **stamens** absent; **pistil** 1; ovary inferior, vase-shaped, ± 0.7 mm long, colorless and covered with appressed colorless hairs, 1-chambered with 1 ovule; style exerted, ± 3.2 mm long, yellow, 2-branched, the branches linear, 0.7 mm long, acute at tip. **Disc flower:** bisexual, radial, 1 mm across; **calyx (pappus)** of 30–40 slender bristles in 1 whorl, 3–3.8 mm long, with ascending short projections; **corolla** 5-lobed, yellow; tube ± 2.5 mm long; lobes triangular, ± 1 mm long; **stamens** 5, filaments fused to corolla tube; anthers fused into cylinder surrounding style, basifixed, dithecal, 1–1.5 mm long, yellow, cordate at base, at tip with acuminate, pale yellow appendage, pale yellow, longitudinally dehiscent; pollen yellow; **pistil** 1; ovary inferior, vase-shaped, ± 0.7 mm long, colorless and covered with appressed colorless hairs, 1-chambered with 1 ovule; style exerted, 3.2–3.5 mm long, yellow, 2-branched, the branches linear, ± 1 mm long, acute at tip, densely papillate-hairy on outer face, glabrous and flat on inner face. **Fruit:** cypselae, monomorphic, narrowly inversely conic, ca. 1 mm long, brownish, low-ribbed, sparsely short-hairy; pappus of 30 spreading capillary bristles, 2.5–3.5 mm long, yellowish; corolla ± persistent. Early June–mid-October.

Native. Perennial herb occurring in small colonies, most commonly in shade of southern oak woodland. *Solidago velutina* subsp. *californica*, formerly called *S. californica*, has

leaves with three veins close to the blade base. This is the common goldenrod in the mountains, and like most of its relatives throughout North America, its yellow heads appear during summer and early fall months.

B. A. Prigge & A. C. Gibson