

Atriplex californica Moq., CALIFORNIA ORACH. Perennial herb to subshrub, evergreen, \pm halophytic, taprooted, not rooting at nodes, many-stemmed at base, prostrate to decumbent, in range 12–30 cm tall, width \gg height, to 80 cm across; in range monoecious; shoots with leaves ascending and crowded on branch ends where internodes $<$ leaves, covered with a dense, single layer of colorless, water-filled, balloonlike hairs (vesicular), the hairs collapsed when dry and white-scurfy; taproot fleshy, fusiform. **Stems:** subcylindric, green, covered with dense, white scurfy hairs, becoming reddish, aging glabrate with tannish periderm, the periderm fracturing and peeling on older, mostly leafless stems. **Leaves:** helically alternate but opposite at base, simple, short-petiolate to sessile, without stipules; petiole $<$ 1.5 mm long; blade narrowly lanceolate to narrowly oblanceolate or elliptic to ovate, in range 4–13 \times 2–4 mm, broadly tapered to narrowly tapered at base, entire, acute to acuminate at tip, venation obscure with only midrib evident, densely white-scurfy aging tannish. **Inflorescences:** congested cluster of unisexual flowers (glomes, sessile cymes), some plants appearing all pistillate because pistillate flowers greatly outnumber staminate flowers and staminate flowers abscise soon after flowering, glomes 2–10-flowered, spaced ca. 8 mm apart in a leafy array with spikelike branches, array 40–135 mm long with ascending branches 10–105 mm long, bracteate; bract subtending array leaflike, reduced upward to bract subtending upper branch linear awl-shaped, 2–10 \times 0.3–3 mm, with vesicular hairs aging scurfy; glomes of lower inflorescence 2–9 flowered and all pistillate, of middle inflorescence commonly 5–7(–10) flowered and all pistillate or sometimes with 1 or 2 staminate flowers, at ends of axes 3–5(–7) flowered and commonly with 1 staminate flower; bractlet subtending outer flowers of glomes to 1.2 \times 0.3 mm, colorless. **Staminate flower:** radial, 2–2.5 mm across; **perianth** calyxlike, 4-lobed, fused at base; lobes unequal, 1 opposing pair larger than other pair, broadly triangular-ovate, 0.9–1.3 \times 1.2–1.7 mm (large lobes), triangular-ovate, 0.8–1.3 \times 0.6–1.1 mm (smaller lobes), externally scurfy; **stamens** 4, fused for $<$ 0.1 mm at base; filaments 0.4–1 mm long, yellowish green; anthers dorsifixed, dithecal, 0.5–0.8 mm long, light yellow to yellowish green, the sacs ellipsoid to oblanceoloid, longitudinally dehiscent, joined \pm midway by a short connective; pollen light yellow; **pistil** absent. **Pistillate inflorescence:** pistillate flower enclosed by 2 bracteoles, bracteoles sessile, scarcely fused at base, ovate to broadly ovate, at anthesis 2.4–4.5 \times 1.2–3.5 mm, fleshy, green becoming reddish, acute to obtuse or rounded at tip, externally densely scurfy-vesicular but surface \pm visible, internally scurfy-vesicular above ovary. **Pistillate flower:** **perianth** absent; **stamens** absent; **pistil** 1, 2–2.5 mm long; ovary superior, vertical, \pm discoid to compressed-obovoid, 0.8–1 mm long, whitish to pale green, 1-chambered with 1 ovule attached at base; style 2-branched, the base thick, 0.1–0.6 mm long, whitish to light green or becoming light reddish brown, the branches equal or unequal, 0.4–1 mm long, light reddish brown, stigmatic most of length. **Fruit:** utricle, enclosed by 2 bracteoles; utricle loosely saclike, conforming to shape of seed but free or loosely adherent to seed, membranous and whitish transparent, \pm wrinkled; with persistent style; bracteoles free or fused $<$ 0.5 mm at base, sessile, rhombic-ovate or ovate to obovate or broadly elliptic, 2.5–3.8 \times 1.7–2.5 mm, becoming less succulent and smaller as seed matures, entire, acute to roundish at \pm thickish tip, lacking warts on surface, scurfy externally and internally above midpoint. **Seed:** vertical, \pm discoid, 1.1–1.5 mm diameter, 0.7–0.8 mm thick, shiny dark brown to black, with tip of radicle descending to base of ovary. Late May–late August.

Native. Perennial found on sea bluffs growing out of rock crevices and in sandy to clay soils as well as in an ecotone on the terrestrial edge of salt marsh. *Atriplex californica* has helically alternate narrow leaves. Although traditionally treated as a dioecious species, our plants always appear to have both staminate and pistillate flowers in the inflorescence, often being preponderantly female, so that staminate flowers can be overlooked. In range staminate flowers have four perianth lobes and four stamens. Bracteoles enclosing the fruit of California orach are nearly free and essentially have no warts on the outer surface.
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