

*Asclepias* L. MILKWEED

*Asclepias californica* Greene, CALIFORNIA MILKWEED, ROUND-HOODED MILKWEED.

Perennial herb, rhizomatous, several-many-stemmed at base, decumbent, to 40 cm tall; shoots with only cauline leaves, densely white-tomentose to woolly; latex white, copious. **Stems:** cylindric, to 8 mm diameter, tough, yellow-green beneath woolly mat of hairs. **Leaves:** opposite decussate, simple, petiolate, without stipules; petiole slightly channeled or flattened on upper side, 2–16 mm long; blade ovate to heart-shaped, 35–140 × 25–75 mm, cordate to subcordate at base, entire and sometimes wavy on margins, acute to acuminate at tip, initially gray-green with whitish mat of hairs turning yellowish before hairs abscise, conspicuously pinnately veined with principal veins ± raised on both surfaces. **Inflorescence:** umbel-like cyme, terminal and axillary with only 1 cyme per node, hemispheric, ca. 40 mm across, 5–9-flowered, bracteate, densely white-tomentose; peduncle short, stout; bractlets subtending outer pedicels involucrelike, each bractlet linear, 2–8 × 0.2–0.4 mm, the largest subtending the outermost pedicel, green, abscising after pollination; pedicel 10–12 mm long increasing 3× in fruit, initially flexuous becoming rigid in fruit. **Flower:** bisexual, radial, 11–18 mm across; in bud densely white-tomentose (calyx + corolla); **calyx** deeply 5-lobed, at anthesis strongly reflexed, ascending or with reflexed lobes in fruit, yellow-green; tube ± 1 mm long, narrowly triangular, 5–6 × 1.3–1.5 mm increasing 2× in fruit, upper surface mostly sparsely pubescent to glabrous but tomentose near tip, lower surface densely tomentose; **corolla** deeply 5-lobed; tube moundlike, rose-purple, continuous with filament column above; lobes reflexed at anthesis, ovate, 8.5–9.5 × 4.5–5 mm, ± rose-purple to purplish red entirely or grading to green-yellow approaching tip, 2-toothed at tip with a crescent-shaped and inwardly curved tooth and a straight tooth, upper surface glabrous, lower surface tomentose; **stamens** 5, fused into staminal column with filaments surrounding but free from lower pistils and anthers fused to the enlarged stigmatic head (stigma + anthers = gynostegium), with a whorl of elaborate appendages (corona) below anthers; filament column 1.2–3 mm long, deep purple, 5-ribbed, fused to and continuous with corolla tube; corona of 5 hoods, the hoods alternate with corolla lobes, thickly ear-shaped to ± ellipsoid, 3.8–4.3 mm long, fleshy, pithy at base and hollow above, with basal part touching corolla tube, split lengthwise in upper 2/3, filled with nectar, without a horn; anthers dithecal, dehiscent along tip, flat and fused to sides stigma except for a horny, projecting, lateral wing and a terminal appendage; anther sacs and connective forming a purplish, W-shaped marking on each face of gynostegium; lateral wings triangular, 2.2–2.5 mm long, the widest at base, ± light yellow, sideways (laterally) appressed to adjacent wing of neighboring anther and forming a slit with gland (corpusculum) joining the pollinia positioned at top of slit; terminal appendages depressed-ovate to ± widely depressed trowel-shaped, 1.2–1.6 × 1.7–1.9 mm, translucent-white, the appendages together forming a star-shaped aperture on top gynostegium and exposing yellowish stigma; pollen united into pollinia, each pollinium flattened and narrowly teardrop-shaped, ± 1.6 mm long, golden yellow, 2 pollinia from adjacent anthers united by orangey translator arms to a deep purple gland (corpusculum); **pistils** 2, together appearing 2-stemmed and chalice-shaped, 6.5–7 mm long; ovaries superior, barely fused at base or free and united by receptacle, ovoid but flattened on common side, ± 1.2–1.3 mm long, green, 1-chambered with many ovules attached on inner side; styles 2, somewhat crooked, green at base becoming yellowish and fused at stigma; stigma capitate (includes

some styler tissue), 1.6–1.8 × 3–3.4 mm, the top flat, 5-cornered, yellowish with green on sides but with purple from anther. **Fruit:** follicle (typically only 1 ovary matures), ± spreading to somewhat ascending sharply from recurved pedicel, ovoid, ca. 90 × 35 mm, narrowly tapered to tip, densely tomentose, lower portion bulging from seeds, filled with long silky hairs above midpoint. **Seed:** lenticular-ovate, 8–10 × 7–9 mm, brown, rounded at base, somewhat wavy on margins, acute to abruptly acuminate at tip, with hundreds of hairs attached to tip, the hairs spreading, 25–35 mm long, silvery white, very fine and silky, silvery white. Late March–late June.

Native. Perennial herb known from only a few localities in SMM growing in openings in coastal sage scrub, e.g., at the M.A.S.H. film site in Malibu Creek State Park. *Asclepias californica* is densely white-tomentose and easy to identify in vegetative condition because the leaves are nearly always opposite and the plants are decumbent with spreading shoots. The hemispheric inflorescence does not exceed forty millimeters in diameter, and has less than ten flowers, while the flower of this species is purple-red, with a deep purple staminal column, and the hoods do not form horns.

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