

Rafinesquia californica Nutt, CALIFORNIA CHICORY. Annual, taprooted, rosetted, 1-stemmed at base, unbranched or large individuals with ascending to spreading lateral branches from each canopy node, erect, 20–150 cm tall; shoots with basal leaves and cauline leaves, glabrous, glaucous, when crushed scented like wild lettuce (*Lactuca*); latex copious and milky; taproot tan-brown, white-fleshed. **Stems:** cylindrical to low-ridged, to 20 mm diameter, striped, aging beige or reddish; hollow. **Leaves:** helically alternate, coarsely pinnately lobed with deep and often wide sinuses (basal and principal cauline leaves and lower bracts) to unlobed (the uppermost leaves and bracts), indistinctly petiolate with bladelike margins (basal leaves) to sessile and mostly clasping (cauline leaves), without stipules; blade of large leaves elliptic to oblong or oblanceolate, to 180 × 120 mm, reduced in a graded series to lanceolate or narrowly ovate approaching inflorescence, lobes of the largest leaves 1–6 per side, to 50 mm long, the basal lobes typically broad and fused to stem, above midplant basal lobes (auricles) clasping, decreasing upward in length and number with lobes replaced by irregular teeth or becoming short-dentate, pinnately veined with midrib conspicuously raised and fleshy on lower surface, glaucous and aging rose-tinged. **Inflorescence:** heads, in terminal, open, somewhat flat-topped, cymelike arrays, with (1–)3–7 heads, head ligulate, 13–24 mm across, 50–75-flowered, withering midday or when stressed, bracteate, glaucous; bracts along main axis and subtending peduncle spreading to recurved, lanceolate to oblong in outline and irregularly toothed or sometimes narrowly pinnately lobed below midblade, to 20 × 10 mm, with clasping and earlike auricles, often with teeth and wavy to crisped on margins, acuminate at tip, with midrib raised on lower surface; peduncle cylindrical, 10–80 mm long, lacking obvious venation or ridges, initially with minute hairs (especially below involucre), hollow, with several bracts along axis (= bracts of future peduncles), the uppermost lanceolate, several mm long, green and grayish, entire; bracts subtending involucre 8–14 in graded series (calyculus), at anthesis ascending becoming spreading to recurved in fruit, unequal, narrowly ovate or awl-shaped to lanceolate and sword-shaped, (2–)3.5–10 × 1–1.5 mm, glaucous green with a dark purplish red midvein and translucent margins, with inconspicuous short hairs on margins, reddish at tip; **involucre** cylindrical, 12–20 × 4–6 mm becoming ovoid and to 12 mm diameter in fruit, phyllaries 7–21, subequal, linear to lanceolate-linear, to 20 mm long, acuminate at tip, exposed phyllaries ± with raised midvein, deep rose-purple or axis rose-purple and green with membranous margins, concealed phyllaries ± flat, green with wide-membranous margins; receptacle somewhat concave, whitish, without bractlets (paleae), with a slight hexagonal rim surrounding each ovary, glabrous (= no red hairs between ovaries). **Ligulate flower:** bisexual, bilateral, 1.5–2.5 mm across, 16.5–22 mm long with outer flowers 3.5–7 mm > involucre; **calyx (pappus)** of (6–)10–15 feathery (plumose) bristles, 6–8 mm long, straw-colored aging brownish, the fine hairs ascending and typically 1–1.5 mm long present nearly to base; **corolla** minutely 5-toothed, 11–13 mm long; tube cylindrical, ± 6 × 0.2–0.3 mm, white and most of length pubescent with ascending hairs; throat narrowly inversely conic, ± 1.3 mm long, yellow with dense, long hairs (also at base of limb); limb strap-shaped, 5–6.5 × 1.7–2.5 mm, whitish except yellow at base, outer 13 each with 3 purplish red stripes on lower (outer) surface ending in the middle 3 teeth, the teeth acute, ± 0.5 mm long, and minutely papillate; **stamens** 5, fused to corolla at top of tube; filaments 0.5–0.9 mm long, yellow; anthers fused into cylinder surrounding style, exerted, basifixed,

dithecal, 1.7–2 mm long, yellowish, with whitish, slender tails at bases and sterile, rounded to obtuse appendages at tip, longitudinally and inwardly dehiscent; pollen yellow; **pistil** 1; ovary inferior, short-beaked and bottlelike, (1.3–)2–2.5 mm long including beak 0.4–0.6 mm long, light green at base and darker green on neck and thick rim at tip, 5-sided, of the outer flowers minutely puberulent especially above midpoint grading to glabrate on inner flowers, 1-chambered with 1 ovule; style exerted 1–1.5 mm above anthers, cylindric, 7.2–10.5 mm long, whitish, with ascending, short, colorless hairs above midpoint, 2-branched, the branches spreading becoming recurved, 0.5–0.6 mm long; stigmas obtuse. **Fruits:** cypselae, in tawny, hemispheric array ca. 30 mm wide having plumose bristles, somewhat dimorphic, beaked; fruit bodies 5-sided and 5-ribbed, of outer flowers lanceoloid and somewhat curved, 4.5–5 × 0.8–1 mm, dark brown or light brown with purplish dashes, conspicuously puberulent with upward-pointing hairs from fruit base to near beak tip, of inner flowers narrowly lanceoloid-fusiform, 4–4.5 × 0.5–0.6 mm, light brown with pale midline on each side, the beak 4.5–7.5 mm long and < outer cypselae, fruit body nearly glabrous and beak sparsely puberulent; pappus bristles 6–8 mm long. Early March–late July.

Native. Annual common in wet years and infrequently observed in dry years at the same sites. *Rafinesquia californica*, somewhat reddish in appearance and with a single main axis, is often not known by most hikers because it resembles the widespread and variable *Malacothrix saxatilis*, but they are easy to identify correctly when in flower. In California chicory, the oldest head of a cluster is terminal, and in profile the bractlets of the calyculus (= outer phyllaries of many authors) are conspicuously recurved. Its fruits have tawny pappus.

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