

*Sonchus asper* (L.) Hill, PRICKLY SOW THISTLE. Annual or biennial herb, spinescent, taprooted, initially with several basal leaves, 1-stemmed at base, often unbranched below flowering canopy, erect, in range 15–180 cm tall; shoots with mostly cauline leaves, basal leaves absent at flowering, glaucous with ± filamentous, waxy exudate, axes with stalked glands aging as prickles and spines on blade margins; latex milky, copious. **Stems:** 5–6-ridged most of length but with fewer ridges near branch ends, to 30 mm diameter, with ridge descending from each leaf, acutely angled to winged immediately below leaf becoming weakly angled farther from leaf, green and striped with pinkish or purplish red veins; internodes hollow; nodes solid with a thin diaphragm. **Leaves:** helically alternate, pinnately lobed (basal leaves) and unlobed (upper cauline leaves), sessile, without stipules; blade of basal and large cauline leaves obovate, oblanceolate, 60–250 × 15–125 mm, tapered at base, coarsely lobed, prickly dentate and ± wavy on margins, each tooth with a spine, some teeth pointed up alternating with others pointed down, thicker and slightly inrolled on margins, acute to acuminate at tip, pinnately veined with fleshy midrib, the midrib thick-triangular in ×-section on lower surface, glabrous, glaucous, upper surface midrib flat to slightly convex and white to pink, lower surface midrib white to red-purple; blade of cauline leaves oblong to lanceolate, 35–140 × 20–40 mm, clasping-lobed at base, acute to acuminate with spine at tip, pinnately veined. **Inflorescence:** heads, in terminal, cymelike arrays of 5 or more heads, head ligulate, 12–13 mm across, with 150–200 flowers, bracteate, glabrous; bract subtending principal axis and lateral branches leaflike, lanceolate, decreasing upward, dentate, conspicuously glaucous; principal axis and lateral branches cylindric, conspicuously striped with raised veins, having radiating glands with swollen bases, acuminate above middle and tipped with a reddish, inversely conic tip 0.7–1.3 mm long, aging as stiff prickles compressed side-to-side; bract subtending peduncle lanceolate to ovate, 4–12 mm long, clasping at base, mostly lacking teeth, sometimes with inrolled margins, glaucous with white-woolly wax on upper surface near base; peduncle at anthesis 3–4 mm long increasing 10–15× in fruit, glabrous or with some gland-tipped hairs and prickles, sometimes with a bract along axis; **involucre** bell-shaped to tubular urn-shaped, 6–7 mm diameter, soon becoming swollen at base with developing fruits, glaucous with hairlike or dendritic waxy exudates, phyllaries 40+ in 4 series, outer phyllaries the shortest, triangular, 3.3–6.5 × 2.3–2.7 mm, thick at base, weakly ridged on midvein with 1–4 soft prickles compressed side-to-side and each phyllary with a terminal tack-shaped gland, phyllaries of second series narrowly triangular, 7–9 mm long, inner phyllaries subequal, narrowly triangular to narrowly lanceolate, 8–10 mm long, phyllaries of third series slightly longer, ± transparent and membranous on margins, rounded and ciliate at tip, sometimes with gland-tipped prickles compressed side-to-side; receptacle concave, without bractlets (paleae), hollow beneath. **Ligulate flower:** bisexual, bilateral, < 1 mm across, extending 1.5–4 mm > above involucre; **calyx (pappus)** of many soft capillary bristles, silvery white; **corolla** minutely 5-toothed at tip, 4–5.5 mm long; tube narrowly cylindric and tapered to base, hairy; limb 2.5–3 × 0.5 mm, bright yellow, of outer flowers sometimes with deep rose stripe on back and 3 rose-colored teeth; **stamens** 5, fused to corolla near top of tube; filaments ± 0.6 mm long, yellow; anthers fused into cylinder surrounding style, exerted, basifixed, dithecal, 1 mm long, yellow fading to base, sacs with tails at base, appendaged at tip, the appendages semi-elliptic, dark purplish to dark brown, longitudinally dehiscent; pollen yellow; **pistil** 1; ovary inferior, round-oval

compressed side-to-side, 0.5–0.7 mm long, whitish to tannish, 1-chambered with 1 ovule; style 8.5–10 mm long, 2-branched, whitish at base, the stigmatic branches exerted, 0.5–0.7 mm long, yellow or brownish on portion exerted beyond anthers but yellow at tip, with minute, ascending barbs. **Fruits:** cypselae, lacking beak, ellipsoid to oblanceoid compressed side-to-side, (2.5–)2.8–3 × 1.1–1.5 mm, brown, winged on margins, 3-ribbed on each face and smooth between ribs, with minute backward-pointing teeth along wings and the bases of ribs; pappus ascending to spreading, fine-hairlike (comose), 6.5–9 mm long, soft white. Mid-January–early September.

Naturalized. Weedy, spinescent herb occasionally found in range in small patches along trails or in disturbed habitats. *Sonchus asper* is called prickly sow thistle because the shoot has stalked glands that soon shed the tips and enlarge as stiff armature, forming as teeth along leaf and bract margins (spinose) and prickles along axes. Materials in range seem to fit better *Sonchus asper* subsp. *glaucescens*, which has backward-pointing teeth on margins and ribs of fruits, but subsp. *asper* is the one accepted now for California; also subsp. *glaucescens* is suppose to be a biennial with a well-developed basal rosette. Clarification is needed on the subspecies.

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