

Vascular Plants of Williamson County

Sonchus asper– PRICKLY SOWTHISTLE [Asteraceae]

Sonchus asper (L.) Hill, PRICKLY SOWTHISTLE. Annual (biennial herb), spinescent, taprooted, in range rosetted, 1-stemmed at base, often unbranched below flowering canopy, erect, in range 15–60 cm tall; shoots with basal leaves and cauline leaves, in range basal leaves present at flowering, often somewhat glaucous with waxy exudate, appearing glabrous, axes sometimes 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, in range to 10 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 to shallowly lobed, and unlobed, sessile with appressed basal lobes (auricles), without stipules; blade of basal and large cauline leaves obovate, oblanceolate, 60–180+ × 15–60+ mm, with rounded, coarsely basal lobed with lobes often curved, densely prickly-dentate and ± wavy on margins base-to-tip, each tooth with a spine, some teeth pointed up alternating with others pointed down, thicker and slightly inrolled on margins, rounded to acute 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 sometimes white to red-purple; blade of cauline leaves oblong to lanceolate, clasping-lobed at base, acute to acuminate with spine at tip, pinnately veined, sometimes with sparse, clusters of inconspicuous, colorless, glandular hairs. **Inflorescence:** heads, in terminal, cymelike arrays of 5 or more heads, head ligulate, 17–20 mm across, many-flowered, bracteate; bract subtending principal axis and lateral branches leaflike but lanceolate, decreasing upward, ± prickly-dentate, possibly 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, with or without teeth, sometimes with inrolled margins, generally not glaucous (with white-woolly wax on upper surface near base); peduncle at anthesis 3–7 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, 6–10 mm diameter, soon becoming swollen at base with developing fruits, sometime 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 sometimes with 1–4 soft prickles compressed side-to-side or 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, 8–12.5 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, phyllaries glabrous or puberulent on outer (lower) surface; receptacle concave, without bractlets (paleae), hollow beneath. **Ligulate flower:** bisexual, bilateral, to 1.4 mm across, extending 1.5–4 mm above involucre; **calyx (pappus)** of many soft capillary bristles in several series somewhat fused at base,

dimorphic, the coarser bristles unbranched and minutely barbed, the other bristles very fine, branched, and without barbs, 6.5–9 mm long, silvery white; **corolla** minutely 5-toothed at truncate tip, to 13.5 mm long; tube narrowly cylindrical and tapered to base, 8.5–9 mm long, mostly white becoming yellowish and soft-hairy approaching limb, 0.2 mm diameter at base, finely 5-veined; limb somewhat elliptic, 3.5–5 × 0.9–1.3 mm, bright yellow, of outer flowers often with rose midstripe on lower surface and 3 rose-colored teeth; **stamens** 5, fused to corolla near top of tube; filaments ± 1.5 mm long, yellowish, glabrous; anthers fused into cylinder surrounding style, exerted, basifixed, dithecal, ca. 1.3 mm long including appendages at tip, yellow with reddish, semi-elliptic appendages, sacs with yellowish tails at base ca. 0.5 mm long, 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; nectary disc surrounding base of style, minute, producing thin nectar; style slender, 8.5–11 mm long, 2-branched, whitish at base becoming yellowish above midpoint, the stigmatic branches exerted to 3 mm from corolla and branches exerted above anthers, the branches ca. 1 mm long, yellow or reddish brownish on outer portion (yellowish on inner portion), with minute, ascending barbs. **Fruits:** cypselae, lacking beak, ellipsoid to obovoid compressed side-to-side, (2.5–)2.8–3 × 1.1–1.5 mm, brown, narrowly 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, branched (comose) and with coarser, minutely barbed unbranched bristles, 6.5–9 mm long, soft, white.

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