

Tragopogon L. GOAT'S BEARD

Tragopogon porrifolius L., SALSIFY, OYSTER PLANT, VEGETABLE OYSTER. Biennial herb, taprooted, rosetted (year 1) and producing a tall flowering shoot (year 2), year 2 with several ascending principal branches first near midplant but on a robust individual branching potentially at any node having a cauline leaf, erect, 40–120 cm tall; shoots with basal leaves or basal and cauline leaves, leaves with grasslike blades having parallel veins, glabrous, glaucous; latex white, copious; tap root vertical, to 25 mm diameter, whitish quickly turning reddish after cut. **Stems:** ± cylindric, to 14 mm diameter, striped with alternating strips of whitish fibers and green tissue, swollen at nodes, glabrous, glaucous; hollow. **Leaves:** helically alternate, simple, sessile, without stipules; blade linear to narrowly lanceolate or linear-lanceolate, 200–400 mm long (basal and lower cauline leaves) and often cupped around stem and folded upward from midrib approaching tip, 60–550 × 7–27 mm (middle and upper cauline leaves), decreasing upward, attached at least halfway around node at base, subentire to inconspicuously toothed and white on margins, sometimes with occasional, inconspicuous weak hairs on margins, long-tapered to fine tip, parallel-veined with midrib conspicuously raised and often angular on lower surface, surface wax easily rubbed off. **Inflorescence:** heads, solitary and terminal on each shoot, head ligulate, in range typically < phyllaries, 60–70 mm across (= spreading phyllaries) and 50–55 mm across (= spreading ligulate flowers), > 50-flowered, bracteate, glabrous, glaucous; peduncle stemlike, 55–110 mm long increasing to 240 mm long in fruit, tough, broadly expanded and inflated (hollow) approaching involucre, with copious white latex (having a diminutive bract below inflated portion); bracts subtending involucre (calculus) absent; **involucre** of bracts subtending head, in bud lanceoloid opening somewhat bell-shaped with widely spreading phyllaries, near base at anthesis to 10 mm diameter increasing 2× in fruit, phyllaries (5–)7–8(–11) in (1)± 2 series, ± equal, narrowly triangular and long-tapered, at anthesis 25–36 mm long increasing 2× in fruit, light green and glaucous, outer phyllaries 3–5, touching at bases, somewhat keeled becoming more so in fruit, glabrous or with some loosely appressed, weak, purplish red hairs near margin at base, inner phyllaries with conspicuously raised midvein and a dense cover of loosely appressed, intertwined weak, purplish red hairs except along midvein, with membranous margins and 1 margin sometimes purple; receptacle slightly concave aging convex in fruit, without bractlets (paleae), scarcely pitted, glabrous. **Ligulate flower:** bisexual, bilateral, ca. 4 mm across; **calyx (pappus)** of 30–35 awns entangled by lateral hairs, most awns 24–28 mm long and white with shaggy, white lateral hairs, including typically 5 longer, purplish awns 30–37 mm long + thinner, helical or wavy bristles between some of thick bristles, wavy or helical bristles < the shorter thick bristles; **corolla** minutely 5-toothed on truncate tip, tube 5.9–7.2 mm long, 0.3 mm diameter at base expanding to 0.7 mm at orifice, whitish to pale purple at base grading to purple at orifice, with an oblique ring of scalelike, colorless to purplish hairs just below orifice; limb strap-shaped, 9.5–23 × 2.2–4 mm, purple, 5-veined; **stamens** 5, fused to corolla tube just below orifice; filaments ± 1.2 mm long, white; anthers fused into cylinder surrounding style, exerted, basifixed, dithecal, 4–7.5 mm long, purplish brown, tailed at base, with rounded sterile appendage at tip, longitudinally dehiscent; pollen yellow-orange; **pistil** 1, 15–25 mm long; ovary inferior, ± carafe-shaped, 2.3–2.8 × 0.6–0.8 mm, light green, 5-angled, 10-ribbed, 1-

chambered with 1 ovule; style exserted, 2-branched, the branches ca. 5 mm long, purplish and with short teeth on outer face and flat and pinkish on inner face. **Fruits:** cypselae, somewhat dimorphic, long-beaked, for head pappus = a brownish spheric array 80–100 mm, of each fruit bristles having a cup-shaped arrangement; of outer flowers fruit body curved-fusiform, 11–13 × 1.8–2.7 mm, brown to dark brown, oblique at base, with 10 poorly defined ribs covered with frosty, ascending and projecting scales, the awns 15–20 mm long, with 10 conspicuous ribs but only with scattered scales and teeth close to the fruit body, slightly expanded beneath hairy node of pappus bristles; of other flowers fruit body ± straight, 13–14 ± 1.3–1.8 mm, paler brown, oblique at base, often 5-angled, the outer cypselae with 10 ribs and regularly spaced scales, the inner cypselae often without ribs and having only remote scales or smooth angles, the awns 15–20 mm long, with 10 conspicuous ribs but mostly lacking scales and teeth, slightly expanded beneath hairy node of pappus bristles; pappus of 35–40 arching bristles in 1 whorl, fused at base, 21–25 mm long, reddish brown, entangled with fine hairs (plumose), 3–5 bristles somewhat thicker and to 7 mm longer than the other bristles and awned. Late April–late June.

Naturalized. Biennial herb best known from Tapia State Park but occurring sporadically in several grassland and oak woodland habitats elsewhere in the central SMM, or where grown in gardens. *Tragopogon porrifolius* is a tall herb with grasslike leaves (parallel veins), heads with attractive purple flowers, and a fascinating spheric display of fruits resembling a dandelion but brown and to one hundred millimeters in diameter. Look closely at the fruit bodies on a head to observe that the outer curved fruits have dense scales grading to the central straight ones that often totally lack scales.
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