

*Artemisia* L. SAGEBRUSH

*Artemisia dracunculus* L., WILD TARRAGON. Perennial herb, drought-dormant, taprooted and fibrous-rooted, several-stemmed at base,  $\pm$  unbranched, the lowermost stem horizontal, bark-covered, and with adventitious roots, above erect to ascending, 50–150+ cm tall; shoots formed during spring, with narrow cauline leaves and short to unexpanded axillary shoots having tufted leaves, glabrous, gland-dotted with tack-shaped, resin-producing hairs sunken in surface (resin obscuring structure), strongly scented = tarragon. **Stems:** low-ridged, to 6.5 mm diameter, with 3 ridges descending from each leaf, straight, aging purple-red; lower woody stem hollow. **Leaves:** helically alternate, simple and lower leaves occasionally with 1 or 2 ascending linear lobes to 30 mm long,  $\pm$  sessile, lacking stipules; petiole when present very short, = flaring base; blade linear to narrowly lanceolate, 10–65  $\times$  1.5–7 mm, broadly tapered to tapered at base, entire (shallowly lobed) on margins, narrowly acute at tip, 3-veined at base with only midrib conspicuous and raised on lower surface, glabrous but with numerous resin glands, the resin colorless aging orange-brown to red and then blackish. **Inflorescence:** heads, terminal and axillary, the entire canopy leafy in paniclelike arrays, array in range 130–600  $\times$  (35–)60–150(–300) mm, racemelike branchlets short and ascending to arching and having 1–16 heads, head disciform, ca. 2 mm across, nodding to pendent, < 35-flowered with 16–18 pistillate outer flowers and 4–16 staminate + 0–8 sterile flowers (central flowers), bracteate, gland-dotted; bracts subtending branchlet leaflike, 1.5–9 mm long; axis several-ridged, sometimes with 1 or 2 smaller bracts (< 1.5 mm long) near midpoint; peduncle subtending head < 1 mm long; **involucre** bell-shaped, 2.3–3  $\times$  1.6–2 mm increasing in width and appearing  $\pm$  spheroidal in fruit, phyllaries to 15 in several series, overlapping and tightly appressed,  $\pm$  oblong to ovate or elliptic, 2.9–4.5  $\times$  1.5–2.5 mm, green with membranous margins and tip, glabrous, inner phyllaries more membranous and the innermost phyllaries elliptic; receptacle conic, without bractlets (paleae). **Staminate flower:** radial, 0.5 mm across, 1.2–1.5 mm long; **calyx (pappus)** absent or = vestigial rim; **corolla** typically 5-toothed; tube 0.5–0.6 mm long, greenish; throat 0.5–0.7 mm long; teeth acute,  $\pm$  0.2 mm long, pale yellow; **stamens** 5, fused to corolla at base of throat, included; filaments short; anthers fused into cylinder surrounding style, basifixed, dithecal,  $\pm$  0.4 mm long, pale yellow, rounded at base, acute at tip, longitudinally dehiscent, pollen pale yellow to light yellow; **pistil** 1, sterile; ovary inferior, < 0.2 mm long; style included,  $\pm$  0.7 mm long, 2-branched; the branches short, truncate and papillate at tip, thick on margins. **Pistillate flower:** radial, 0.5 mm across,  $\pm$  1.5 mm long; **calyx (pappus)** absent or = vestigial rim; **corolla** typically 2-lobed, narrowly cylindrical,  $\pm$  0.7 mm long, with scattered, sessile, spheric glandular hairs; lobes = acute teeth, unequally cleft, sometime 3-toothed with small tooth at base of deeper cleft; **stamens** absent; **pistil** 1; ovary inferior, 0.6–0.7 mm long, 1-chambered with 1 ovule; style exerted,  $\pm$  2 mm long, 2-branched; the branches ascending, equal or unequal, flat, to  $\pm$  0.3 mm long, papillate-hairy on stigma, longitudinally grooved on inner face. **Fruits:** cypselae, oblanceoloid to obovoid, 0.7–1 mm long, brown but white at attachment scar, glabrous, glossy but surface irregular in  $\pm$  longitudinal pattern. Early June–mid-August.

Naturalized. Perennial herb found occasionally in disturbed, open scrubland throughout the range. *Artemisia dracunculus* is the strongly aromatic, culinary herb tarragon, and its terpenes are produced by glandular hairs sunken in surfaces of the shoot; secreted liquid terpenes fill in the cavity around the hairs, where the liquid solidify as resin, obscuring the hairs.

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