

Vascular Plants of Williamson County

Dysodiopsis tagetoides – MARIGOLD DOGFENNEL, MARIGOLD DOGWEEED [Asteraceae]

Dysodiopsis tagetoides (Torrey & A. Gray) Rydb., MARIGOLD DOGFENNEL, MARIGOLD DOGWEEED. Annual (short-lived perennial), taprooted, initially rosetted, 1-stemmed at base, in canopy forming ascending flowering branches at successive nodes downward to midplant, in range 30–75 cm tall; gynomonoeious; shoots with several nodes of basal leaves and many cauline leaves, foliage slender and feathery, with orange, blisterlike glands along leaf axis aging purple-red basal to each leaf lobe, strongly odorous when crushed (*Tagetes*), lacking nonglandular hairs but having many minute glandular hairs. **Stems:** ridged, to 5 mm diameter, with 3 ridges descending from each leaf, tough, lower stems striped green and rose-red, lacking blisterlike glands. **Leaves:** opposite decussate to subopposite (only basal leaves) and helically alternate, pinnately divided with widely spaced in pairs or solitary, to 35 lobes, ascending to spreading narrow lobes along a slender blade axis, short-petiolate (basal leaves) to sessile, without stipules; petiole flared at base, flat, to 4 mm long and fused across node (basal leaves), 3-veined at base, on most leaves having only flared base (touching the lowest pinnate lobe); blade axis in range to 80 mm long and lobes toothlike to 7 mm long with minute white point (mucron) at tip, flexible, axis channeled on upper surface and raised on lower surface, upper surface with a circular gland 0.4 mm at base of each lobe, the blisterlike gland initially convex and light orange aging flat and purple-red, minute glandular hairs persisting on lower surface. **Inflorescence:** heads, several, in terminal cymelike array on each ascending shoot, head radiate, 18–23 mm across, of 7–12 pistillate ray flowers and mostly 30–45 bisexual disc flowers, bracteate; bract subtending peduncle leaflike, linear, to 25 mm long; bract subtending peduncle leaflike, to 25 × 1.5 mm; peduncle ridged, 30–50 mm long, having several unlobed linear bracts spaced along axis, the bracts acuminate, to 10 × 1 mm, at top with 5–10 bracts subtending involucre (calyculus) finely pinnately lobed with to 5 acuminate lobes \perp axis, the widest at midblade with blisterlike gland; **involucre** bell-shaped, 6–7 × 5.5–6 mm, phyllaries ca. 18, the outer 10–12 in series fused \pm 3/4, green with triangular lobe 1.3–1.4 × 1–1.4 mm long purple-red at acute tip (notched) with short, tips densely short-hairy and with white mucron, each outer phyllary with 1(–2) vertical rows of 2–3 vertically elliptic, liquid-filled, blisterlike glands, 1–1.5 × 0.6–0.7 mm, light orange; receptacle hemispheroid, ca. 2.5 mm across, lacking bracts (paleae), each ovary surrounded by a crownlike rim, to 0.3 mm tall but unequal, the rim at anthesis orangish, higher on the upper side of ovary and conspicuous for central disc flowers. **Ray flower:** bilateral, ca. 3 mm across; **calyx (pappus)** scarious scales 10–12 in 2 series, many with short points at tips (somewhat aristate), 1–2.2 × 0.1–0.25 mm, outer scales > inner scales, colorless, minutely serrate on margins and minutely scabrous on outer (lower) surface, persistent; **corolla** minutely notched (broadly acute); tube flattened front-to-back, 2.5–3.5 × 0.3–0.4 mm, pale green; limb bent outward at tube orifice, in bud inrolled to upper side becoming spreading and limb later recurved, oblong to oblong-lanceolate or lanceolate, 8.5–10 × 1.2–3 mm, bright yellow but greenish yellow at base, veins inconspicuous, lacking hairs; **stamens** absent; **nectary disc** vestigial, minute around base of style; **pistil** 1; ovary inferior, rounded on back and flat on inner side later forming midridge, ca. 3 × 0.6 mm, white soon aging black, with short ascending hairs along 2 edges, 1-chambered with 1

ovule; style 3.5–3.9 mm long, bulbous and pale green at base, mostly light green, 2-branched, the stigmatic branches partially exserted, 0.5 mm long, the exserted tip spreading and reddish. **Disc flower:** radial, 1 mm across, 8–9 mm long; **calyx (pappus)** scarios scales 10–12 in 2 series, many with short points at tips (somewhat aristate, sometimes forked), $1\text{--}2.2 \times 0.1\text{--}0.3$ mm, outer scales > inner scales, colorless, minutely serrate on margins and minutely scabrous on outer (lower) surface, persistent; **corolla** 5-lobed; tube cylindric, $1.5 \times 0.6\text{--}0.65$ mm, pale green, smooth, 5-veined, lacking hairs; throat narrowly funnel-shaped, 2 mm long, 1 mm wide at orifice, mostly transparent with 5 conspicuous yellow veins aging green-yellow; lobes triangular, 0.85–0.95 mm long, transparent with yellow margins aging green-yellow; **stamens** 5, attached at top of corolla tube; filaments 1–1.5 mm long, pale green; anthers fused into cylinder surrounding style, basifixed, dithecal, 2 mm long including lanceolate appendages 0.5 mm long; sacs golden and appendages paler, longitudinally dehiscent in bud; pollen golden; **nectary disc** vestigial, minute around base of style; **pistil** 1; ovary inferior, columnar 4-sided (squarish in \times section), $2.6\text{--}2.7 \times 0.65\text{--}0.7$ mm, white soon aging black, with short ascending hairs along edges, 1-chambered with 1 ovule; style ca. 4.5 mm long, bulbous at base, mostly pale green, 2-branched, the stigmatic branches 1 mm long, light yellow-green, and conspicuously papillate above midpoint. **Fruits:** cypselae (achenes), monomorphic, \pm columnar 3-sided (of ray flowers) and 4-sided (of disc flowers) and straight to slightly curved, $2.8\text{--}3.3 \times 0.55\text{--}0.7$ mm, black, with oblique scar at base, having short ascending hairs along edges.

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