

Vascular Plants of Williamson County

Helenium elegans var. *elegans* – CREEK SNEEZEWEED [Asteraceae]

Helenium elegans DC. var. *elegans*, CREEK SNEEZEWEED. Annual, taprooted, 1-stemmed at base, not rosetted, of ascending lateral branches at successive nodes and with many terminal inflorescences, in range to 50 cm tall; gynomonoeious; shoots with only cauline leaves, each leaf associated with a pair of decurrent, leaflike (photosynthetic) wings along the stem internode descending to the next node, leaves and leafy tissue along stem with scattered puberulent hairs and conspicuously gland-dotted having many sessile, regularly spaced glandular heads sunken in pits. **Stems:** ridged and winged aging cylindrical at base, axis to 6 mm diameter, internodes to 65 mm long, the vertical wings to 4.5 mm wide, the ridges on opposite sides of stem; basal stem forming pale brown periderm. **Leaves:** helically alternate, simple and sessile, without stipules; blade acuminate-narrowly lanceolate to narrowly triangular or lanceolate-linear, 30–90 × 3–9 mm, flat, entire (not forming either lobes or teeth), acuminate at tip, with midrib slightly sunken on upper surface and raised on lower surface. **Inflorescence:** heads, in open, terminal cymelike arrays of several heads for each principal branch, head radiate, 13–15 mm across, with 10–14 pistillate ray flowers and a ball-like disc of 200+ bisexual disc flowers, the limbs of ray flowers initially widely spreading later recurved, the spheroidal disc mostly 8–9 mm, bracteate; bract subtending peduncle of head leaflike, acuminate-narrowly triangular, 18–30 × 1.1–3 mm, gland-dotted, associated with a pair of narrow decurrent wings along stem internode; peduncle ridged, in range 30–70 × 0.6–0.7 mm but enlarged and hollow approaching head, the ridges descending from phyllaries of involucre, short-strigose with upward-pointing hairs along ridges and short-stalked glandular hairs with colorless heads in furrows, lacking bracts (calyculus) at top; **involucre** partially obscured by enlargement of spheroidal disc, phyllaries ca. 21, outer phyllaries of ca. 11 in 1 series fused into a reflexed ring ca. 0.7 mm long, the blades spreading and somewhat crooked, narrowly triangular-linear, 5–6 mm long, green, 1-veined, exposed surfaces short-strigose and with short-stalked glandular hairs, inner phyllaries acute oblanceolate-linear, < 2 mm long; receptacle conic, ca. 2 mm tall, lacking bractlets (paleae), glabrous. **Ray flower:** bilateral, in range ca. 2.3–3.5 mm across (corolla limb); **calyx (pappus)** of 6(–7) scarious scales, scales ascending-spreading, ± semicircular, 0.1–0.25 × 0.1–0.3 mm, lacking vein and without awn (not aristate), persistent; **corolla** 3-lobed, in range 5.5–7 mm long; tube vestigial, < 0.3 mm long; limb sometimes twisted, fan-shaped with semi-circular lobes, in range 2.5–3.3 wide, lower portion ca. 1 mm long orangish, next portion ca. 1 mm long and crimson (“red-brown”), upper portion bright yellow, lobes 0.5–0.8 × 0.5–1.1 mm and central lobes narrower than lateral lobes, 2-veined at base then each vein 2-forked (crimson portion) and the center 2 veins 2-forked (bright yellow portion) forming 6 veins (2 per lobe), the largest veins slightly sunken on upper surface and raised on lower surface, upper surface lacking hairs, lower surface with colorless, beadlike short hairs and scattered short-stalked glandular hairs; **stamens** absent; **pistil** 1; ovary inferior, narrowly wedge-shaped, 0.6–0.7 × 0.3 mm, white, 8–10-ribbed, short-hairy with ascending hairs on faces and ribs and with several short-stalked glandular hairs between ribs, 1-chambered with 1 ovule; **nectary disc** surrounding style at base not observed; style mostly exerted, slightly enlarged at base, 2-branched, ca. 1.7 mm long and orangish below fork, the stigmatic branches spreading, ca. 0.5 mm long and light orange. **Disc flower:** radial, < 1 mm across

(spreading stigmatic branches of style), 3 mm long; **calyx (pappus)** of 6(–7) scarios scales, scales ascending-spreading, \pm semicircular, $0.1\text{--}0.25 \times 0.1\text{--}0.3$ mm, lacking vein and without awned point (not aristate), persistent; **corolla** (4–)5-lobed; tube with wider rim at base, ca. 0.2×0.2 mm, transparent aging darker with several colorless glandular hairs; throat narrowly funnel-shaped, ca. $2 \times 0.65\text{--}0.7$ mm, yellowish transparent aging greenish, 5-veined, with scattered, short-stalked glandular hairs on outer surface; lobes triangular to deltate, suberect with tip curved somewhat toward center, greenish but outer (lower) surface covered by purple-red short, beadlike hairs; **stamens** 5, attached at top of corolla tube; filaments ca. 1.2 mm long, mostly colorless or yellowish; anthers fused into cylinder surrounding style, exerted ca. 0.5 mm, basifixed, dithecal, ca. 1 mm long including triangular appendages and short tail, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1; ovary inferior, narrowly wedge-shaped and sided, $0.6\text{--}0.7 \times 0.3$ mm, white, 8–10-ribbed, short-hairy with ascending hairs on faces and ribs and with several short-stalked glandular hairs between ribs, 1-chambered with 1 ovule; **nectary disc** surrounding style at base minute; style ca. 2 mm long, orangish at base to light orange above midpoint, 2-branched, the branches exerted, spreading, 0.8 mm long, expanded and papillate at tip. **Fruits:** cypselae (achenes), monomorphic, top-shaped (bowed outward), ca. 0.7×0.45 mm, dark brown, 8–10-ribbed, with ascending short hairs and several glandular hairs; pappus scales 6(–7), scarios, semicircular, to 0.25 mm long.

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