## Vascular Plants of Williamson County

*Tetraneuris scaposa* var. *scaposa* – FOUR-NERVE DAISY, SLENDERSTEM BITTERWEED, YELLOW PAPER DAISY, PLAINS YELLOW DAISY, HYMENOXYS [Asteraceae]

Tetraneuris scaposa (DC.) E. Greene var. scaposa, FOUR-NERVE DAISY, SLENDERSTEM BITTERWEED, YELLOW PAPER DAISY, PLAINS YELLOW DAISY, HYMENOXYS. Perennial herb, taprooted with erect caudex, always rosetted, 1-several-stemmed at base, acaulous with  $\pm$ erect inflorescences, in range 14–33 cm tall; gynomonoecious; shoots with only basal leaves, with appressed soft hairs and gland-dotted having sessile glandular hairs with colorless heads sunken in pits on surfaces. Stems: only at base without internodes and hidden by basal leaves; axils with some long hairs from the internode between leaves. Leaves: helically alternate, simple, petiolate, without stipules; petiole flared and halfsheathing stem at base and winglike, < 5 mm long, whitish but indistinct from base, 3veined and raised on both surfaces at base; blade ascending, linear,  $15-55 \times 2-3.5$  mm, somewhat fleshy, long-tapered at base, entire, acute at tip, 1-veined sunken on upper surface and raised on lower surface, with glands sunken in pits, lower surface with fine short to long hairs (especially along midrib). Inflorescence: solitary head, axillary to basal leaf, on long, erect peduncle, head radiate, 21-36 mm across, with  $\pm \pm 12$  pistillate ray flowers and 30+ bisexual disc flowers, bracteate; peduncle 8-ridged,  $100-250+\times 1$ mm, tough, striped green and tannish below midpoint,  $\pm$  strigose with upward-pointing soft hairs and sericeous approaching involucre, lacking sessile glandular hairs; involucre cupshaped,  $4.5-5 \times 7-8$  mm, phyllaries ca. 20 in 2 series, subequal, outer phyllaries broadly lanceolate,  $4.5-5 \times 1.5$  mm, green but with narrow colorless margins, inner phyllaries oblanceolate with wide colorless margins, green tissue sericeous; receptacle domed, lacking bractlets (paleae), glabrous. Ray flower: bilateral, 4–5 mm across; calvx (pappus) of 5–7 scarious scales, visible above phyllaries, scales broadly oblong to obovate, 1.6–2.3 mm long with or without point at obtuse to rounded tip, minutely toothed and jagged on margins usually with fine point at tip (aristate), persistent; corolla (2-)3lobed, persistent aging with reflexed, papery limb; tube funnel-shaped, ca. 1 mm long, yellow-orange, with stalked glandular hairs; limb spreading, narrowly fan-shaped,  $7-9 \times$ 4–5 mm, light vellow conspicuously 4-veined with veins aging reddish orange, lobes obtuse to rounded and < 1 mm long, veined raised on lower surface and forked before each sinus, the branches fused at lobe tip, lower surface with scattered glands and short hairs lacking heads; stamens absent; pistil 1; ovary inferior, compressed wedge-shaped, ca. 2.3  $\times 0.7$  mm not increasing in fruit, pale green, appressed-hairy and gland-dotted; style 1.8–2 mm long, 2-branched, lower portion to 1.2 mm long, light orange, the branches exserted, stigmatic. **Disc flower:** radial, ca. 1.5 mm across; **calyx** (pappus) of 5–7 scarious scales, scales broadly oblong to obovate, 1.6–2.3 mm long with or without point at obtuse to rounded tip, minutely toothed and jagged on margins usually with fine point at tip (aristate); corolla (4–)5(–6)-lobed, tube + throat narrowly funnel-shaped, ca.  $2.5 \times 1$  mm (orifice) but central disc flowers with short corolla, orange-yellow; lobes cupped-deltate, 0.3 mm,  $\pm$  fleshy, papillate-hairy and bearded; stamens (4–)5, attached to top of corolla tube; filaments ca. 0.5 mm long, yellow-orange; anthers fused as cylinder surrounding style, basifixed, dithecal, with exserted appendages (sacs included),  $\pm 1.8$  mm long, orangish, appendages keeled-ovate, longitudinally dehiscent; pollen yellow-orange;

**nectary disc** not obvious, nectar absent; **pistil** 1; ovary inferior, compressed wedgeshaped, ca.  $1.8 \times 0.6$  mm not increasing in fruit, pale light green, appressed-hairy and gland-dotted; style included (within anthers), 2 mm long, yellow-orange, 2-branched at midpoint, the branches flattish with papillate stigmas. **Fruits:** cypselae (achenes) ± monomorphic, top-shaped, 1.6-2.3 mm long, of ray flowers longer and more plump with rounded outer face, 0.7-0.8 mm diameter, of disc flowers 0.6 mm diameter, pale brown, strigose with upward-pointing hairs and gland-dotted; pappus of 5–7 scarious scales, broadly oblong to obovate, 1.6-2.3 mm long, often with fine point at tip (aristate), persistent. A. C. Gibson