

Vascular Plants of Williamson County
Amphiachyris amoena – TEXAS BROOMWEED [Asteraceae]

Amphiachyris amoena (Shinn.) Solbr. (syn. *Gutierrezia amoena*), TEXAS BROOMWEED. Annual, taprooted, not rosetted, 1-stemmed at base, in range 14–55 cm tall; monoecious; shoots with only widely spaced cauline leaves and slender young stems, on old shoot lacking leaves, green tissues glabrous with sessile glandular hairs, strongly aromatic when crushed and becoming resinous (excessively resinous when placed into plastic bags). **Stems:** initially several-angled (low-ridged) and < 1 mm diameter, in range to 4 mm diameter and cylindric at base, with ridge descending from each leaf, green stems with sunken glandular hairs, old lower stem with light brown periderm. **Leaves:** helically alternate, simple and sessile, without stipules; blade linear, of canopy 3.5–26 × 0.5–0.85 mm, entire, acute with tiny point at tip, 1-veined, glabrous, surfaces irregular with abundant sessile glandular hairs sunken in pits. **Inflorescence:** heads, in open, terminal, “leafy” cymelike arrays of 1–3 heads but indistinct from canopy branches, head radiate, 12–15 mm across, in range mostly having 7–9 pistillate ray flowers and 25–32 functionally staminate flowers, bracteate, green tissues with sessile glandular hairs; peduncle indistinct from stem, to 35 mm long, with several alternate, linear leaves < 5 mm long along axis, having 2–3 leaflike bracts at top (± calyculus; alternatively interpreted as outer phyllaries) ca. 2 mm long slightly flared at base and appressed to involucre; **involucre** bell-shaped aging more bulbous, 5–6 × 3–3.5 mm, often resin-coated, with 13–15 phyllaries in 2 series, lower portions colorless and 1-veined and upper portion acute, green and gland-dotted, of the lower series not subtending flowers, ovate, 2.5–3.5 × 1.5 mm, the lower portion with jagged margins and the upper portion acute, the upper series (inner phyllaries) subtending and = ray flowers, obovate, 4.5–5.5 × 1.8–2.1 mm, persistent and often sealed by sticky resin; receptacle convex aging flattish, lacking bractlets (paleae), shallowly pitted for each disc ovary, having minute, 1-celled, hooked hairs with enlarged base (difficult to observe when resinous). **Ray flower:** bilateral, 1.6–2.5 mm across; **calyx (pappus)** a short crown of several alternate, scarious scales, to 0.3 mm long, greenish, jagged on margins; **corolla** unlobed, in range 6.5–7.5 mm long, lacking hairs; tube slightly compressed front-to-back, 1 mm long, white; limb elliptic, 5–6.5 × 2–2.5 mm, bright yellow (both surfaces), rounded at tip, aging coiled; **stamens** absent; **nectary disc** not observed; **pistil** 1, 3 mm long; ovary inferior, ± cylindric, 1 × 0.45 mm, whitish, with several low, winglike ribs, short-hairy, 1-chambered with 1 ovule; style ca. 2 mm long, white at base to yellow above, 2-branched, the branches stigmatic, exerted, ascending, 0.7 mm long, yellow, conspicuously papillate. **Disc flower:** radial, ca. 1.5 mm across; **calyx (pappus)** of 4–8 scarious scales fused to 0.7 mm at base projecting above flower buds, scales linear, 2.5–3 mm long, flat to threadlike, if flat somewhat wider approaching tip, not barbed, persistent; **corolla** 5-lobed, ca. 3 mm long; tube somewhat angled, ca. 0.5 mm long, colorless, with 5 raised veins; throat bell-shaped, colorless, with 5 raised veins to sinuses, glabrous; lobes widely spreading, equal to unequal (1 lobe with deeper sinuses), curved-spreading, triangular, 0.4–0.7 mm long, yellowish; **stamens** 5, attached near base of corolla, exerted; filaments ca. 1.5 mm long, white; anthers dorsifixed, dithecal, 1.5 mm long included narrow appendages, bright yellow, longitudinally dehiscent; pollen bright yellow; **nectary disc** absent; **pistil** vestigial, sterile, appearing like a short stalk < 0.2 mm long; style 3 mm long, white at base to yellow

above, 2-branched from midpoint, the branches exserted, stigmatic, appressed, papillate.

Fruits: cypselae (achenes), ellipsoid-obovoid aging barrel-shaped, in range ca. 2×1.5 mm, dark brown to blackish, with low ribs hidden by dense vertical rows of short hairs in furrows (setulose).

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