

Vascular Plants of Williamson County

Heterotheca stenophylla – NARROWLEAF GOLDENASTER, STIFFLEAF GOLDENASTER
[Asteraceae]

Heterotheca stenophylla (A. Gray) Shinn. (if recognized, var. *stenophylla*), NARROWLEAF GOLDENASTER, STIFFLEAF GOLDENASTER. Perennial herb, taprooted, not rosetted, 1-stemmed at base, unbranched or with a few ascending branches from midplant, erect, in range 30–80 cm tall; gynomonoecious; shoots leafy with cauline leaves but lower leaves withered by anthesis, light green with silvery whitish hairs, moderately to densely villous and hirsute often with expanded bases (pustulate) and also in inflorescences having stalked glandular hairs with colorless heads, somewhat aromatic. **Stems:** cylindric, to 2.5 mm diameter, tough. **Leaves:** helically alternate, simple and sessile, lower leaves clasping, without stipules; blade oblanceolate to lanceolate, 15–35 × 3–8 mm tapered at base, entire but not wavy on margins, acute often with short point at tip, pinnately veined with principal veins raised on lower surface, short-hairy and with longer hairs having persistent, enlarged bases. **Inflorescence:** head, solitary and terminal on peduncle, head radiate, 20–25 mm across (widely spreading rays), with ca. 20 pistillate ray flowers and 50+ bisexual disc flowers, bracteate, pubescent and densely glandular-hairy; peduncle erect, ridged, with pustulate nonglandular hairs and glandular hairs, having leaflike bracts along axis, head elevated above bracts, bracts < 8 mm long, entire; **involucre** bell-shaped, ca. 10 × 7.5 mm, phyllaries ca. 50 in 4–6 series, 4–7.5 × 1–1.6 mm, grading from outer phyllaries short and lanceolate to inner phyllaries longer and oblanceolate, colorless on margins and fringed-ciliate at acute tip, exposed surfaces arrow-shaped red-purple mostly above midpoint, central axis thickened and densely glandular-hairy with large, translucent heads; receptacle flat aging slightly convex in fruit, without bractlets (paleae), pitted with a whitish toothed crown to 0.5 mm long surrounding each ovary, glabrous. **Ray flower:** pistillate, bilateral, 2–2.5 mm across; **calyx (pappus)** in 2 series, outer series of ca. 13 short, whitish, linear scales 0.7–0.9 mm long, inner series of to 20 whitish capillary bristles ca. 5 mm long; **corolla** with 2–3 minute teeth; tube cylindric, 4 × 0.5 mm, white, above midpoint with ascending short hairs < 0.25 mm long (also on lower limb) on outer side; limb elliptic, 9–10 × 2.1–2.5 mm, golden yellow aging with 4 fine purplish parallel veins and red at base, acute at tip; **stamens** absent; **pistil** 1, to 4.5 mm long; ovary inferior, obovoid somewhat 3-sided, ca. 2 mm long, white, with 10 ribs and ascending short hairs, 1-chambered with 1 ovule; style included, yellowish, 2-branched, the stigmatic branches subequal, slender, ± 0.7 mm long. **Disc flower:** bisexual, radial, 1 mm across; **calyx (pappus)** in 2 series, outer series of ca. 13 short, whitish, linear scales 0.9–1.2 mm long, inner series of to 20 whitish capillary bristles, 6–6.5 mm long; **corolla** 5-lobed, ± 6.5 mm long, glossy; tube cylindric, 2.5 × 0.4 mm long, colorless, glabrous; throat cylindric, 3.5 × 0.7 mm, colorless with 5 yellowish veins; lobes suberect, acute-triangular, 0.45–0.55 mm long, yellowish, with glandular hairs on outer (lower) surface; **stamens** 5, fused to top of corolla tube; filaments ± 1.2 mm long, yellowish; anthers fused into cylindric surrounding style, included, basifixed, dithecal, ± 2.5 mm long, light orangish yellow, with appendages at tips, the appendages narrowly triangular and translucent, longitudinally dehiscent; pollen orangish yellow; **pistil** 1; ovary inferior, obovoid compressed side-to-side, ± 1.5 mm long, white, with 6–10 ribs and ascending short hairs, 1-chambered with 1 ovule; style ± 4.5 mm

long, 2-branched, yellowish at base to yellow above midpoint, the stigmatic branches often fully exerted, flattened, ca. 1.7 mm long, appressed or spreading, papillate-hairy. **Fruits:** cypselae, \pm monomorphic, obovoid compressed side-to-side, in range ca. 2 mm long, silvery short-hirsute with ascending hairs, 6–10 ribbed; pappus outer series in range of ca. 13 narrowly awl-shaped scales, 0.7–0.9 mm (ray flowers) and 0.9–1.2 mm long (disc flowers), fringed on margins at tip, inner series of 16–20 spreading, straight bristles, ca. 5 mm long (ray flowers) and ca. 6–6.5 mm long (disc flowers), rusty brown.

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