

## Vascular Plants of Williamson County

*Viguiera dentata* – PLATEAU GOLDENEYE, SUNFLOWER GOLDENEYE [Asteraceae]

*Viguiera dentata* (Cav.) Spreng., PLATEAU GOLDENEYE, SUNFLOWER GOLDENEYE, TOOTHLEAF. Perennial herb, several-stemmed at base, eventually forming ascending lateral branches, mostly to 200 cm tall; gynomonoeocious; shoots with only cauline leaves, somewhat scabrous and stiff-hairy, hairs strigose to strongly arched, < 0.5–1 mm long with conspicuous swollen bases (pustulate), not aromatic when crushed. **Stems:** ridged, with 3 ridges descending from each leaf, when young appearing grayish from strigose hairs. **Leaves:** opposite decussate (lower plant) and helically alternate (upper canopy and inflorescences), simple, petiolate having opposite leaves connected with ledges across node, without stipules; petiole crescent-shaped and flared at base to channeled above, 4–15+ mm long; blade ovate to somewhat rhombic or broadly lanceolate, < 40–80+ × < 25–50+ mm, truncate at base but narrowly tapered at petiole, serrate (short-serrate) on margins, acute to acuminate at tip, commonly 3-veined near base with principal veins slightly sunken on upper surface and raised on lower surface, with hairs upward-arching to appressed, mostly along veins and longer along principal veins. **Inflorescence:** heads, in open, cymelike arrays in range often with 2 heads, terminal on each shoot and axillary, head radiate, 30–40 mm across, with 10–14 ray flowers and many disc flowers, bracteate, stiff-hairy with upward-pointing hairs; bract subtending peduncle leaflike and petiolate, lanceolate to narrowly lanceolate and < foliage leaf, < 10 mm wide; peduncle ridged, to 45 mm long, with arched-ascending and short-strigose hairs; bract along peduncle leaflike but smaller = bract subtending future peduncle; **involucre** hemispheric, 7–12 mm wide, phyllaries 15–20 in several series, lanceolate to narrowly ovate, 5.5–7 × 1.6–2 mm, outer phyllaries somewhat abruptly narrowed above midpoint, basal portion with 3 raised veins, tough, and persistent (becoming indurate), upper portion herbaceous, ascending later spreading, entire, acuminate at tip, short-hairy, inner phyllaries subtending ray flowers, with shorter herbaceous portion and less hairy on exposed surface; receptacle flat to slightly convex, with conspicuous bractlets (paleae) subtending disc flowers, each palea folded and enclosing ovary, membranous, obovate but strongly keeled, ca. 5.5 × 2.5 mm + hard tip 0.5 mm long, colorless at base to yellowish above midpoint with 9–11 parallel veins converging at yellow tip. margins sometimes sparsely short-ciliate. **Ray flower:** sterile, bilateral, 6–8 mm across; **calyx (pappus)** absent; **corolla** typically notched, 14–16 mm long, bright yellow; tube short-cylindric, ca. 1 mm long, short-hairy; limb elliptic, 13–15 mm long, parallel-veined having veins sunken on upper surface and raised and orangish on lower surface; **stamens** absent; **pistil** vestigial, ± linear and compressed, ca. 2.5 × 0.4 mm, white, glabrate. **Disc flower:** bisexual, radial, ca. 2 mm across; **calyx (pappus)** dimorphic, of 2–3 bristle-tipped scales and 2–5 shorter scales, bristle-tipped scales 1.8–2.9 mm long with cupped and jagged basal portion ca. 1 × 0.4–0.6 mm, jagged bristleless scales 0.5–0.7 mm long, colorless or teeth and bristles purple and sometimes scales purple-streaked, bristle with short, ascending hairs (antrorse); **corolla** (4–)5-lobed, ca. 4 mm long; tube chimney-shaped with thick basal rim, pale green, with scattered spreading short hairs; throat abruptly expanded at base, basal portion to midpoint, bell-shaped and 4–5-lobed, 1.2–1.3 mm diameter, green, with short ascending hairs, upper portion ± cylindric and 4–5-ribbed, ca. 0.7 mm diameter, green at base to yellowish at orifice, short-hairy along ribs;

lobes 4–5, spreading to somewhat recurved, triangular-ovate,  $\pm 1$  mm long, yellow, short-strigose on lower (outer) surface; **stamens** (4–)5, fused to corolla at base of throat; filaments 1.5–1.8 mm long, pale yellow, conspicuously pubescent; anthers fused into cylinder surrounding style, exserted, basifixed, dithecal, ca. 2.5 mm long, reddish brown with yellow-orange deltate appendages 0.4 mm long at top, longitudinally dehiscent; pollen golden yellow; **pistil** 1; ovary inferior, wedge-shaped, strongly compressed, and 3-sided, ca.  $3 \times 1$  mm, whitish, with ascending short hairs, 1-chambered with 1 ovule; style included (never exposed), ca. 5 mm long, 2-branched, bulbous and white at base changing to golden yellow above midpoint, the branches ascending within column of anthers, 1 mm long, conspicuously papillate. **Fruits:** cypselae (disc flowers), inversely triangular in outline (obpyramidal) and compressed front-to-back,  $2.3\text{--}2.9 \times 1.1\text{--}1.4$  mm, purple-black mottled brown (blistered patches), ridged on lateral edges with raised backbone on 1 or both faces, with asymmetric, hard callus at base, truncate at tip, in range conspicuously strigose and short-strigose on faces; pappus bristle-tipped scales 1.8–2.9 mm long and shorter bristleless scales easily dislodged.

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