

## Vascular Plants of Williamson County

*Vernonia baldwinii* – WESTERN IRONWEED, BALDWIN IRONWEED [Asteraceae]

*Vernonia baldwinii* Torrey, WESTERN IRONWEED, BALDWIN IRONWEED. Perennial herb, robust, rhizomatous, rosetted, 1-stemmed at base, in range to 180 cm tall; shoots with only cauline leaves, foliage not aromatic when crushed. **Stems:** cylindrical, to 9 mm diameter, internodes < 35 mm long, puberulent and short-hairy, not gland-dotted. **Leaves:** helically alternate, simple, short-petiolate, without stipules; petiole indistinct from blade, hemicylindric, to 5 mm long; blade ovate to lanceolate, 50–165 × 19–75 mm, tapered at base, serrate and minutely serrate on margins, acute to acuminate at tip, pinnately veined with principal veins raised on lower surface, upper surface dull green, puberulent and short-hirsute, lower surface minutely strigose and gland-dotted with sessile heads in shallow pits, midrib (principal veins) with stalked, 2-armed hairs. **Inflorescence:** heads, in terminal and axillary, ± flat-topped, cymelike array of several–many heads, head discoid, 12–19 mm across, with 25–30 showy, bisexual flowers, outer flowers spreading, bracteate, pubescent with short unbranched and 2-armed hairs; bract subtending array leaflike, narrowly elliptic, < 15 mm long, sometimes 3-toothed; bract subtending lateral branch and peduncle awl-shaped, ca. 2 mm long, decreasing upward; peduncle ridged, < 20 mm long, resin gland-dotted, short-hairy; **involucre** bell-shaped, 6–6.5 × 4–5 mm, phyllaries 45–65 in several series, unequal, the outermost phyllaries awl-shaped, 1 mm long increasing to middle phyllaries ovate, ± 4 mm long and inner phyllaries oblong, ca. 6 mm long, green with deep purple on exposed tip, raised midvein above midpoint, and edges, short-ciliate on margins, exposed tissue resin gland-dotted; receptacle flat and narrow, lacking bractlets (paleae), having crownlike teeth to 0.5 mm long surrounding each ovary, the ridges white and puberulent. **Disc flower:** radial, 6–7 mm across, 13–15 mm long; **calyx (pappus)** of 20+ free, colorless, narrow scales in whorl (outer series) and ca. 50 bristles in whorl (inner series), the scales, stiff, 0.2– < 1 × 0.1–0.2 mm, the bristle ring fused to scales, 4.6–7 mm long and exserted from involucre, purplish red; **corolla** 5-lobed, ± trumpet-shaped (salverform); tube + throat narrowly funnel-shaped, with scattered resin glands, tube 5-sided, ca. 4 × 0.6 mm, white to pale purple, throat 2.5–3 mm long, 1 mm wide at orifice, light violet changing to violet above midpoint; lobes strap-shaped, ca. 3 × 0.5 mm, violet, acute at tip; **stamens** 5, attached to top of corolla tube; filaments ± 2.2 mm long, lavender white; anthers fused into cylinder surrounding style, basifixed, dithecal, ± fully exserted, arrow-shaped (sagittate), ca. 4 mm long with appendages and tails, sacs and linear tails white, appendages erect, lanceolate, ± 0.8 mm long, densely covered with resin-producing glandular hairs, longitudinally dehiscent; pollen colorless; **pistil** 1; ovary inferior, narrowly wedge-shaped to columnar and ca. 7–8 ribs and angled, 1.2–1.4 mm long, white, having resin glands and cobwebby-hairy along ribs; **nectary disc** surrounding base of style, 0.3 mm long, white, producing copious thin nectar; style exserted to 5 mm, 12–13 mm long, 2-branched, white at base to below fork, light violet above and violet branches, the stigmatic branches fully exposed, ascending later strongly recurved, 3.5–4 mm long, conspicuously short-hairy. **Fruits:** cypselae (achenes) columnar, conspicuously 10-ribbed, 3–3.2 × 0.6–0.75 mm, brownish with purple dots in furrows, having white callous at base; pappus of 20+ narrow scales in whorl (outer series) and ca. 50 bristles in

whorl (inner series), the scales, stiff, light brown,  $0.2- < 1 \times 0.1-0.2$  mm, the bristle ring fused to scales, 4.6-7 mm long, light brown.

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