

## Vascular Plants of Williamson County

*Gaillardia aestivalis* var. *aestivalis* – LANCELEAF GAILLARDIA, YELLOW INDIAN BLANKET  
[Asteraceae]

*Gaillardia aestivalis* (Walter) H. Rock var. *aestivalis*, LANCELEAF GAILLARDIA, YELLOW INDIAN BLANKET. Annual (appearing annual in range), taprooted, not rosetted, in range 1-stemmed at base, unbranched to branched below mid-canopy with branches arises downward at successive nodes, in range to 35 cm tall; shoots with short-lived basal leaves and numerous cauline leaves (to 12) along principal axis into canopy, foliage and axes short-hairy with strongly bent, upward-pointing nonglandular hairs and short-stalked glandular hairs with colorless heads, lacking beadlike hairs on shoots. **Stems:** ridged aging cylindric, to 3 mm diameter, with 3 ridges descending from each leaf, green aging brownish. **Leaves:** helically alternate, simple, petiolate and sessile to clasping (upper cauline leaves), without stipules; blade oblanceolate to oblong,  $< 20\text{--}105 \times 2.5\text{--}34$  mm, long-tapered at base (lower leaves) and clasping with rounded basal lobes (upper cauline leaves), remotely dentate above midblade, obtuse to acute at tip, pinnately veined with midrib raised on either both surfaces or lower surface, short-hairy and with sessile glandular hairs having colorless heads. **Inflorescence:** head, solitary, terminal on long peduncle, head radiate, 25–40 mm across, with mostly 5–9 neuter ray flowers and many bisexual disc flowers, disc hemispheroid to 19 mm across, bracteate; peduncle low-ridged, to  $120 \times 1.4$  mm, green, tough, short-hairy, each hair with red basal cell, lacking bracts (calyculus) at top; **involucre** of mostly 15–22 phyllaries in 3–4(–5) series, outer series of 5 phyllaries recurved, acute-narrowly ovate,  $9\text{--}10.5 \times 3.5\text{--}4$  mm, green, with upward-pointing short hairs with reddish basal cells, of next series of 5 phyllaries spreading to somewhat recurved, acute-lanceolate,  $7\text{--}9 \times 2.5\text{--}3$  mm, green with purple-red above midpoint with membranous margins near base, inner series ascending (next to disc flowers), acuminate-lanceolate,  $6\text{--}6.5 \times 1.2\text{--}1.8$  mm, green with purple-red above midpoint with membranous margins to above midpoint, upper surface glabrous; receptacle domed, lacking bractlets (paleae) subtending flowers, apparently in range lacking hairs (setae) between ovaries. **Ray flower:** bilateral, 7–11 mm, 16–23 mm long; **calyx (pappus)** of 7–8 scales in 2 series, 4–5.5 mm long, having a scarious blade to midpoint and a bristlelike tip (aristate), scarious portion narrowly lanceolate to linear-lanceolate, colorless with midvein raised on outer (lower) surface, minutely scabrous on outer surface, minutely jagged on margins, tip awnlike with short, upward-ascending projections; **corolla** deeply (2–)3-lobed; tube flattened front-to-back,  $2\text{--}5.5 \times 0.7\text{--}0.8$  mm, rose-red, with beadlike hairs and sessile glandular hairs; limb fan-shaped, 12–22 mm long, light yellow with orange-red to crimson principal veins converging at tips, lobes oblong to elliptic-lanceolate obtuse at tips, mostly 5–7 mm long, veins (5)8 at base becoming 3 per lobe, veins raised on lower surface with beadlike, reddish nonglandular hairs along veins and sessile glandular hairs between the veins, upper surface glabrous; **stamens** absent; **pistil** 1, sterile; ovary inferior, narrowly wedge-shaped, ca.  $1.2 \times 0.35$  mm, light green, with some hairs at base and along 1 side but mostly glabrous; **nectary disc** at top of ovary small; style absent. **Disc flower:** bisexual, radial, ca. 5 mm across (spreading lobes of corolla); **calyx (pappus)** of 8–10 scales in 2 series (3.3–)4.3–8 mm long, having a scarious blade to midpoint and a bristlelike tip (aristate), scarious portion narrowly lanceolate to elliptic, in

range mostly 2–4.2 × 0.3–0.8 mm, colorless with midvein raised on outer (lower) surface, minutely scabrous on outer surface, minutely jagged on margins, tip awnlike with short, upward-ascending projections; **corolla** 5-lobed, ca. 8.5 mm long; tube 0.8–1 × 0.5 mm, white, glabrous; throat narrowly bell-shaped, 5–5.5 × 1.5 mm, at anthesis colorless (veins pale reddish) aging pale rose at base to rose above with intense purple-red at top to lobes, not ribbed, 5-veined to sinuses, the veins aging slightly darker rose, at lobes having darkly pigmented beadlike hairs; lobes widely spreading, at base triangular with inrolled margins but from below midpoint cylindrical, intense purple-red with appressed, beadlike hairs; **stamens** 5, attached to top of corolla tube; filaments 1.5 mm long, yellowish; anthers fused into cylinder surrounding style, included, basifixed, dithecal, 3–3.4 mm long including appendages, light yellow, the appendages acuminate and glossy purple red, longitudinally dehiscent; pollen light yellow-orange; **pistil** 1; ovary inferior, wedge-shaped ± 4–5-sided, 1.5 × 1 mm, greenish, pubescent, with long hairs along edges and faces becoming collapsed hairs, having bristlelike hairs to 0.5 mm long at base, 1-chambered with 1 ovule; **nectary disc** surrounding base of style, ca. 0.25 mm long, white; style 8–9 mm long, exerted, 2-branched, the lower portion to 1.5 mm above anther, colorless, the stigmatic branches widely spreading aging ascending, ca. 3 mm long, colorless aging dark purple-red, papillate, with a ring of longer papillate hairs at the base of each stigmatic lobe. **Fruits:** cypselae (achenes), with persistent aristate pappus scales, monomorphic, inversely conic to inversely pyramidal, ca. 2 × 1.3 mm (fully formed), brown, densely covered with stiff, ascending, straight white hairs 0.5–1.1 mm long, many hairs minutely 2-forked at tips, attached at base and along 5 raised veins leading to outer series of pappus scales and faces; pappus scales 8–10 in 2 series, with ascending, white, awned bristles.

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