

Vascular Plants of Williamson County

Gaillardia suavis – FRAGRANT GAILLARDIA, PERFUME-BALL, RAYLESS GAILLARDIA
[Asteraceae]

Gaillardia suavis (A. Gray & Engelm.) Britt. & Rusby, FRAGRANT GAILLARDIA, PERFUME-BALL, RAYLESS GAILLARDIA. Perennial herb, taprooted, rosetted, 1-stemmed at base, scapose, in range 17–55 cm tall; shoots with only basal leaves in a conspicuous rosette or with to 1 diminutive cauline leaf close to rosette, in range foliage sparsely pubescent with beadlike nonglandular hairs (sparsely “villous”) and lacking glandular hairs. **Stems:** to 2 mm diameter, concealed by bases of basal leaves. **Leaves:** helically alternate, simple with shallow teeth or lobes mostly above midblade, petiolate, without stipules; petiole cupped upward, to 15 mm long, indistinct from blade; blade horizontal, oblanceolate to spatulate (basal leaves) and linear to oblanceolate (cauline leaves), 60–105 × < 10–23(–39) mm (basal leaves) with to 9 lobes and 18–70 mm long (cauline leaves), long-tapered at base, sinus of lobes < 1/2 to midrib, with teeth mostly broadly acute or entire on margins, sparsely short-ciliate on margins with weak hairs, obtuse to rounded at tip, pinnately veined and 3-veined above base with principal veins raised on lower surface, upper surface glabrous, lower surface with sparse, beadlike hairs aging with collapsed cells. **Inflorescence:** head, solitary, terminal on long peduncle (scape), head radiate (discoid if ray corollas absent), 25–40 mm across, with (0)3–8 neuter ray flowers and 60+ bisexual disc flowers, disc 13–20 mm across, bracteate; peduncle low-ridged (subcylindric), 150–500 × 3 mm, green, tough, mostly with weak, appressed, upward-pointing hairs, lacking bracts (calyculus) at top; **involucre** somewhat platelike but outer phyllaries often recurved, to 15 mm across, phyllaries ± 22 in 4–5 series, outer series of 5 phyllaries broadly elliptic to ovate, 4–5 × 2.5–3 mm, fleshy to midpoint and ± soft-hairy, green with narrow, colorless margins, in next series tonguelike, 6–6.5 × 2.5–3 mm, green but darker at tip, in intermediate 2 series acute-lanceolate, to 9.5 × 2.5 mm, with red tips, the innermost phyllaries acuminate, ca. 9 × 1.5 mm, green with membranous margins and ± red at tip, glabrous or sparsely short-ciliate; receptacle convex to domed, lacking bractlets (paleae) subtending flowers, with hairs (setae) between ovaries, in range to 1 mm long, colorless aging white. **Ray flower:** bilateral, 4.5–11 mm, to 15 mm long; **calyx (pappus)** of 8–10 scales in 2 series, having a scarios blade to midpoint and a bristlelike tip (aristate), scarios portion obovate to elliptic, ca. 2.5 × 1.5 mm, colorless aging 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 3-lobed; tube flared at top, 2–2.5 × 0.7 mm, green; limb fan-shaped, to 6 mm long, light orange with 3 crimson principal veins converging below tips (rose tissue near tube), lobes oblong to elliptic-lanceolate, 1.5–2.7 mm wide, obtuse at tip; **stamens** absent; **pistil** 1; ovary inferior, wedge-shaped, 1 × 0.7 mm, greenish, pubescent, having bristlelike hairs (setae) to 2 mm long at base, covered with straight hairs, 1-chambered with 1 white ovule; **nectary disc** surrounding base of style, 0.2 mm long, green; style exerted, 5–8.8 mm long, 2-branched, green at bulbous base to branches, the branches crimson above. **Disc flower:** bisexual, ± radial, 2 mm across (4 mm across = spreading style branches); **calyx (pappus)** of 8–10 scales in 2 series 6.5–8.5 mm long, having a scarios blade to midpoint and a bristlelike tip (aristate), scarios portion obovate to somewhat rhombate, in range mostly 3–4 × 1.3–1.8

mm, colorless aging with yellowish midvein raised on outer (lower) surface, minutely scabrous on outer surface, minutely jagged on margins, tip awnlike with short, upward-ascending projections; **corolla** (4–)5-lobed, 5.5–6 mm long; tube cylindrical, 1.2–1.5 × 0.7 mm, colorless; throat bell-shaped to urn-shaped, 3.3–4 mm long, colorless with 8 or 10 yellow-orange veins, ± ribbed, veins to sinuses most prominent, with minute glands; lobes erect, triangular to deltate, ca. 1.5 × 0.7–1.2 mm, yellow-orange at base above purple-red, with ± appressed hairs; **stamens** (4–)5, attached to top of corolla tube; filaments 2 mm long, yellow-orange; anthers fused into cylinder surrounding style, exerted, basifixed, dithecal, 3.5–4 mm long including appendages ca. 1.2 mm long, yellow-orange at base to red-purple above, the appendages acuminate and cupped toward outside, longitudinally dehiscent; pollen light orange; **pistil** 1; ovary inferior, wedge-shaped ± 4–5-sided, 1 × 0.7 mm, greenish, pubescent, with long hairs along edges becoming collapsed hairs, having bristlelike hairs to 0.5 mm long at base, 1-chambered with 1 ovule; **nectary disc** surrounding base of style; style exerted, 2-branches, the branches widely spreading, ca. 2.5 mm long, crimson, with subterminal ring of short stiff hairs ca. 0.25 mm long. **Fruits:** cypselae (achenes), often few per head, with persistent aristate pappus scales, monomorphic, inversely pyramidal, ca. 3 × 3 mm, brown, densely covered with stiff, ascending, straight white hairs 0.5–2 mm long, many hairs minutely 2-forked at tips, attached at base and along 5 raised veins leading to outer series of pappus scales; pappus scales 8–10 in 2 series, with ascending, white, awned bristles.

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