Vascular Plants of Williamson County

*Liatris punctata* var. *mucronata* – DOTTED GAYFEATHER, PLAINS GAYFEATHER, BLAZING STAR [Asteraceae]

*Liatris punctata* Hooker var. *mucronata* (DC.) B. L. Turner, DOTTED GAYFEATHER, PLAINS GAYFEATHER, BLAZING STAR. Perennial herb, corm-bearing, fibrous-rooted, (several–)many-stemmed at base, principal stems spreading and ascending to suberect and unbranched below canopy, in flower 25–60 cm tall; shoots with basal leaves and closely spaced cauline leaves but longer basal leaves absent at flowering, cauline leaves ± stiff and closely spaced, lower cauline leaves spreading to upper cauline leaves ascending, foliage gland-dotted on lower surfaces and young leaves with some fine hairs including on margins; corm oblate-spheroid to subspheroid, old corm ± 40 × 55 mm, covered with weathered, fibrous leaf bases dull gray (exposed) and brown (covered). **Stems:** ± cylindric, to 4 mm diameter, with 2 weak ridges decurrent from each leaf, internodes short–13 mm long, aging orange-red to purplish, glabrous or sometimes with fine, long hairs and inconspicuously gland-dotted with sunken glands. **Leaves:** helically alternate (subopposite), simple and ± sessile, without stipules; petiole < 1 mm long, indistinct from blade; blade linear, < 30–85 × 1.5–2 mm, slightly lobed at base, entire, acute at tip, 3-veined at base but laterals not visible at midblade with conspicuous double midrib (channeled) raised on both surfaces, gland-dotted with sessile heads sunken on both surface, young leaves sometimes with some fine hairs near base. Inflorescence: heads, in unbranched, terminal, spikelike array of many ascending, sessile heads, 70–320 × 30–40 mm, 1 axillary head per leaflike bract, head discoid, 10–15 mm across (+ spreading style branches), in range 3–5-flowered, bracteate, exposed green tissues gland-dotted, sometimes with fine hairs near the bases of heads; axis visible or hidden, stemlike with short internodes, weakly ridged, with short-stalked glandular hairs and sometime with fine, soft hairs; bract subtending head leaflike, ascending, of lower array ≥ head and approaching tip ≤ head, to 2.5 mm wide, 1-veined, acute at tip, gland-dotted; **involucre** cylindric, 9–12 × 3 mm, exposed surfaces green and gland-dotted, phyllaries 14–18 in 4–5 series, unequal, basal phyllary cupped and ± keeled with raised midvein, acuminate-ovate, ca. 2.5 mm long, green with colorless margins, outer 5 phyllaries acuminate-ovate and cupped, 3–4 mm long increasing upward, finely parallel-veined from base, middle phyllaries broadly oblong with folded acuminate tip, 5 × 3 mm increasing upward, inner 5 phyllaries obovate-oblong, to 12 × 3–4.3 mm, short-ciliate on membranous margins, margins of inner phyllaries pale purple, tip narrowly conic and purplish, midvein sometimes purplish to pinkish; receptacle extremely narrow, without bractlets (paleae), each ovary in pit surrounded by a fleshy rim ca. 0.25 mm long, glabrous; pedicel beneath ovary tough, short, white. **Flower:** bisexual, radial, ca. 4 mm across (+ spreading style branches); **calyx (pappus)** feathery capillary bristles (short-plumose), in range ca. 40 in 2 series, subequal, 4.2–8 mm long, axis often purple-red and somewhat wavy to midpoint and firmly attached, branches (barbels) fine, < 0.5–1.2 mm long; **corolla** 5-lobed; tube barrel-shaped, 1.5–2 mm long, white, not gland-dotted; throat narrowly funnel-shaped, 5–6 mm long, white to pale purple, 1.5 mm wide at orifice, 5-veined in sinuses, gland-dotted, inner surface short-pilose; lobes ascending to spreading, narrowly triangular, 3.2–5 × 1 mm, light to bright purple, lower surface gland-dotted; **stamens** 5, attached to top of
corolla tube; filaments 2–4 mm long, short-hairy base-to-tip; anthers fused into cylinder surrounding style, included to half-enserted, 4–4.5 mm long including appendages and tails, sacs and tails red, tails slender, 1 mm long, appendages ovate, 0.6–0.7 mm long, pinkish, longitudinally dehiscent; pollen white to pinkish; pistil 1; ovary inferior, narrowly inversely pyramidal and 3-sided, 4.5–7 × ca. 1 mm, greenish, 9–11-ribbed, with ascending short hairs along raised ribs and denser hairs at top, furrows gland-dotted, 1-chambered with 1 ovule; nectary disc surrounding style base, ca. 0.3 mm long, reddish; style long-exserted, 2-branched, ca. 6 mm long and white to fork, the branches straplike, 10+ mm long, lower portion pale pink and red-purple with glands on upper side, upper portion crooked and purple. Fruits: cypselae (achenes), in set of 3–5 per head but often seedless, with persistent, firmly attached pappuls; fruit body inversely narrowly prismatic (obpyramidal) and ± 3-sided, in range 4.5–7.2 × ± 1.5 mm (fertile), 9–11-ribbed, brown with paler ribs but dark green with purplish red ribs when immature, ribs short-hirsute with ascending hairs, faces especially above midpoint with minute stalked glandular hairs having yellowish heads before drying; pappus capillary bristles in range ca. 40 in 2 series, ascending to spreading, conspicuously feathery (short-plumose), 5.5–8.8 mm long, white to tawny (main axis purplish when immature), fine branches (barbells) ascending-spreading, < 0.5–1.2 mm long.
A. C. Gibson