

Vascular Plants of Milam County

Liatris squarrosa var. *squarrosa* – LOOSESCALE GAYFEATHER, COLICROOT [Asteraceae]

Liatris squarrosa (L.) Michx. var. *squarrosa* (incl. *L. squarrosa* var. *alabamensis*), LOOSESCALE GAYFEATHER, COLICROOT. Perennial herb, corm-bearing, fibrous-rooted, 1(–2)-stemmed arising from top of belowground corm, principal stems suberect to erect and unbranched base to tip, in flower 25–70 cm tall; shoots with several basal leaves from top of corm absent at flowers, and many cauline leaves present at flowering; corm spheroid to subspheroid, old corm mostly 20–30 mm, covered with weathered, fibrous brown leaf bases, pith whitish outer region speckled brown and especially cortex with scattered oil cells. **Stems:** ± cylindric aging somewhat ridged, to 4 mm diameter, internodes < 6–25 mm long, green and whitish striped (decurent from leaf midrib), in range pubescent with weakly strigose and shorter hirsute hairs arching upward, in canopy hirsute mostly not strigose. **Leaves:** helically alternate, simple and sessile, without stipules; blade linear, < 30–130(–230) × 1.5–4(–7) mm, entire, of the widest lower leaves short-ciliate on margins and of upper cauline leaves never ciliate, obtuse to blunt-acute at colorless tip, parallel-veined at base mostly with 5(–9) principal veins, the midrib somewhat raised on both surfaces with ribbed edges, with scattered hirsute hairs along midrib on both surfaces, surfaces gland-dotted with scattered, slightly sunken oil cells, edges minutely scabrous. **Inflorescence:** heads, each head terminal on a short axillary shoot from successive nodes above midplant on shoot axis, racemelike array of several to many, heads, the oldest at tip of shoot initiated downward, axillary shoot ascending, having a stalk (peduncle) with several bracts (leaves) approaching head, head discoid, 15–20 mm across (+ spreading style branches), in range with ca. 20 bisexual flowers, bracteate, leaflike tissues gland-dotted; peduncle ascending, in range 2–10(–40) mm long (long peduncles on very robust individuals), short-hirsute, bracts along peduncle leaflike, spreading to ascending, oblong-linear, mostly 6–8 × 1–1.4 mm, entire and short-ciliate on part of each margin, acute at tip, finely parallel-veined with several veins at base; **involucre** roughly cylindrical, at maturity 17–20 × 10–17 mm, exposed green surfaces gland-dotted, phyllaries ca. 30 in 5–7 series, unequal; the outermost (lowermost) 4–5 phyllaries resembling peduncle bracts, spreading, narrowly triangular-lanceolate, 7–10 × 1.5–2 mm, white at base above green with white veins, short-ciliate on margins, sometimes surfaces short-hirsute; middle phyllaries ca. 16 in graded series, ascending, the lowermost ca. 9 × 4–4.5 mm increasing upward to 13 mm long, lower portion cupped-rectangular and whitish, ca. 3 mm long increasing upward, parallel-veined, upper portion triangular or deltate to ovate often acuminate, ca. 6 mm long, green with whitish midvein or later blushed purplish or with purplish margins, the margins often wide-membranous, sometimes short-ciliate on margins, surfaces glabrous; upper (inner) phyllaries ca. 10 in 2+ series, erect, strap-shaped with diminutive upper portion, 10–11 × 1–1.5 mm, parallel-veined; receptacle flat, without bractlets (paleae), each ovary in a shallow pit surrounded by an angular rim, essentially glabrous; pedicel beneath ovary tough, short, white. **Flower:** bisexual, radial, ca. 10 mm across (+ spreading style branches); **calyx (pappus)** feathery capillary bristles (short-plumose), in range 34–44 fused at base, subequal, at anthesis 6.5–8+ mm long, axis initially white from base and rose-red approaching tip, branches (barbels) fine, appressed at anthesis, < 0.5–1.2 mm long increasing upward; **corolla** 5-lobed, 12–16 mm long; tube cylindric or somewhat

compressed, $\pm 6 \times 0.9$ mm, not expanded around nectary disc, white, 5-veined, glabrous and without glandular hairs; throat narrowly funnel-shaped, tube + throat often < pappus, light pink-purple, 5-veined to sinuses, outer surface with scattered, sessile glandular hairs, inner surface with 10 lines of appressed short-pilose hairs; lobes narrow-triangular, ca. 4.5×0.8 mm, light pink-purple, outer (lower) surface with dense sessile glandular hairs, upper surface dense short-pilose hairs; **stamens** 5, attached to top of corolla tube; filaments < 1 mm long, colorless; anthers fused into cylinder surrounding style, included ca. 3.5 mm long including appendages and tails, sacs and tails rose-red, longitudinally dehiscent; pollen white aging off-white; **pistil** 1; ovary inferior, narrowly inversely pyramidal angled and ca. 10-ribbed, at anthesis ca. 4×1 mm, whitish but dark green to brown at top, with ascending short hairs especially along raised ribs and denser hairs at top, 1-chambered with 1 ovule; **nectary disc** surrounding style base, cylindric, 0.6–0.7 mm long, white; style long-exserted, 12–16 mm long, 2-branched, lower portion 5–6 mm long (below midpoint) white to fork, the branches long-exserted from corolla, 9–11 mm long, light pink-purple, with scattered sessile glandular hairs, flattish and dark pink approaching tip. **Fruits:** cypselae (achenes), having pappus of feathery bristles; fruit body angled prismatic tapered from top to base and ± 10 -ribbed, in range $4.8\text{--}5.3 \times 1\text{--}1.3$ mm, brown faces with ribs sometimes black, ribs short-hirsute with ascending hairs, faces especially above midpoint textured with fine, parallel crossridges between ribs, faces with or without short-hirsute hairs and sometimes having minute glandular hairs, top of fruit next to pappus densely short-hirsute; pappus capillary bristles in range ca. 34–44 fused by ring at base, initially erect on dry fruit later spreading, conspicuously feathery (short-plumose), 9–11.5 mm long subequal, axes rose-red, fine branches (barbels) ascending-spreading, < 0.5–1.2 mm long and often red-pigmented at least at tips.

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