

Vascular Plants of Williamson County

Galium tinctorium – DYE BEDSTRAW, STIFF MARSH BEDSTRAW, SOUTHERN THREE-LOBED BEDSTRAW [Rubiaceae]

Galium tinctorium L., SOUTHERN THREE-LOBED BEDSTRAW, DYE BEDSTRAW, STIFF MARSH BEDSTRAW. Perennial herb, 1–several-stemmed at base, spreading to ascending and sprawling over low plants, to 25 cm tall; shoots weak-stemmed, only leaves somewhat scabrous, essentially glabrous. **Stems:** 4-sided and 4-ridged, to 0.8 mm diameter, never woody, ridges colorless, internodes 7–50 mm long, the lowermost internodes often rose-red to purplish red, sometimes inconspicuously papillate-hairy at node. **Leaves:** whorled, 4–5(–6) per whorl (4 on the short-leaf forms), simple and sessile fused across node, without obvious stipules; stipules 2, indistinguishable from leaves (treated here as leaves); blade oblong-linear to narrowly oblanceolate, (2.5–)6–15 × 1–2.4 mm, bright green, broadly tapered at base, entire with margins not inrolled under or wavy, obtuse at tip, midrib only conspicuous and raised on lower surface, upper surface smooth, lower surface margins and midrib with some small, backward-pointing teeth. **Inflorescence:** cymelike on short lateral shoots, axillary generally not paired at nodes, shoot with 1–2 internodes at top with a stalked terminal flower, a stalk with 1–2 flowers, and a leafy shoot which having future fertile nodes, bracteate, glabrous like shoot; bractlets at fertile node 2(–3) and opposite, subtending a pedicel of a terminal flower and the 2-flowered peduncle, spreading, leaflike, oblanceolate, ca. 5 × 1 mm or 1 smaller (3); pedicel and peduncle cylindric, at anthesis < 3 mm long sometimes > developing leaf increasing 2× in fruit, glabrous. **Flower:** bisexual, radial, 1–2 mm across; **perianth (corolla)** 3-lobed and 4-lobed on the same plant, of 1 whorl, cymbal-shaped (rotate), ca. 1.2 mm long, white, in bud rounded (4-merous) and 3-sided (3-merous); tube saucerlike, ± 0.4 mm long; lobes spreading, ovate, 0.7–0.9 × 0.6–0.7 mm, inconspicuously 3-veined, lower surface minutely beaded; **stamens** 4, fused to corolla tube decurrent from near base and free slightly below sinuses between lobes; filaments erect, cylindric, 0.25–0.35 mm long, white; anthers dorsifixed, dithecal, ca. 0.25 mm long, light yellow, longitudinally dehiscent; pollen pale yellow to light yellow; **nectary disc** on top of ovary as low, green rim surrounding base of style, nectar present; **pistil** 1; ovary inferior, conspicuously 2-lobed, 0.5–0.6 × 1 × 0.5 mm, light yellow-green, smooth, glabrous, 2-chambered, each chamber with 1 ovule; styles 2 (fused) erect, 0.4–0.5 mm long, colorless, 2-branched to near base, the branches ascending; stigmas exerted just below level of anthers, capitate, ca. 0.15 mm. **Fruit:** schizocarp, 2-chambered forming 2 dry, 1-seeded nutlets (mericarps) with fruit wall ± fused to seed coat, sometimes only 1 developing; mericarp, subspheroid, 1.5–2.1 mm, length > width, brownish, lacking prickles and hairs, with wall ca. 0.35 mm thick.

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