

Vascular Plants of Williamson County

Heliotropium procumbens – FOURSPIKE HELIOTROPE [Boraginaceae]

Heliotropium procumbens Miller, FOURSPIKE HELIOTROPE. Annual, taprooted, in range (1–)several–many-stemmed at base, prostrate or decumbent to ascending, 10–30 cm tall, to 40 cm long; shoots with only cauline leaves, strigose of hairs with swollen bases, not glaucous. **Stems:** cylindric, to 3 mm diameter, tough, green; **Leaves:** helically alternate, simple, petiolate, without stipules; petiole hemi-cylindric, to 5 mm long; blade elliptic to narrowly oblanceolate or broadly lanceolate, $< 10\text{--}23\text{--}(40) \times 3\text{--}8\text{--}(20)$ mm, green, tapered at base, entire, acute at tip and somewhat curved downward, inconspicuously pinnately veined with only midrib visible, midrib sunken on upper surface and raised on lower surface. **Inflorescence:** panicle of spikelike cymes, scorpioid, terminal, typically with 2–3 spikes commonly paired at end of peduncle and appearing 3-forked, spike typically > 40 -flowered, 1-sided with ascending to erect flowers in 2 alternating rows on upper side having flowers 3 mm apart per row, in fruit V-shaped or widely forked, flowers and fruits subsessile, lacking bracts, conspicuously hispid-strigose; pedicel ascending, at anthesis ca. 0.5 mm long increasing $2\times$ in fruit, hairs often $>$ pedicel. **Flower:** bisexual, radial, ca. 2.5 mm across; **calyx** 5-lobed, lobes fused at base, dark green or with reddish tinge, hispid-strigose on outer (lower) surface and sparsely short-strigose or nearly glabrous on inner surface; tube < 0.3 mm long, with swollen bases of lobes; lobes erect, unequal, the widest on the out-facing side of each row, ovate, $1.2\text{--}1.3 \times 0.6\text{--}0.7$ mm flanked by narrowly triangular lobes (between flowers in a row) $1.2\text{--}1.3 \times 0.35$ mm, those flanked by narrowly oblong lobes $1.4\text{--}1.5 \times 0.3$ mm, especially the largest increasing to $2\times$ in fruit; **corolla** 5-lobed, bell-shaped, ± 2.2 mm long, abscising during fruit development; tube + throat 1.5 mm long, yellowish, strigose on outer surface except at base, throat widening above ovary and with ring of short hairs just below lobes, orifice at top of calyx tube; lobes equal, spreading to ascending, lanceolate, ca. 0.7×0.25 mm, white, glabrous; **stamens** 5, fused at top of corolla tube, included, \pm sessile; anthers dithecal, ovate in outline, 0.45 mm long, pale yellow, the tip sterile, white, pointed, minutely bumpy-papillate, longitudinally and inward dehiscent; pollen whitish; **pistil** 1, snowman-shaped, 0.6 mm long, green; ovary superior, spheroid and slightly 4-lobed, 0.4×0.35 mm, at anthesis glabrous, with 1 ovule per lobe; style short and stout; stigma hemispheric, ca. 1 mm wide, narrower than style. **Fruits:** 4 nutlets, \pm ovate in outline and 3-sided, $0.9\text{--}1 \times 0.7$ mm, brown, rounded and conspicuously short-strigose on outer surface, flat sides often with 1–several blisters, with a broad, lateral scar; without persistent corolla and calyx widely spreading.

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