

## Vascular Plants of Williamson County

*Froelichia gracilis*— SLENDER SNAKE-COTTON, SLENDER COTTONWEED [Amaranthaceae]

*Froelichia gracilis* (Hooker) Moquin-Tandon, SLENDER SNAKE-COTTON, SLENDER COTTONWEED. Annual, taprooted, not rosetted, several–many-stemmed at base, 2-forked at successive vegetative nodes or also having a terminal inflorescence at the center, in range mostly procumbent vegetative plant with decumbent, widely spreading inflorescences to 35 cm tall; shoots with only paired cauline leaves, leaves at each node equal to subequal (somewhat anisophyllous), axes and foliage cobwebby-woolly with hairs not hiding green surface, the hairs white but appearing grayish white from a distance. **Stems:** appearing cylindrical but inconspicuously low-ridged, with pulvinus at base of each internode, pulvinus to 6 mm wide and pinkish, midpoint of internode to 3 mm diameter and green, cobwebby hairs mostly oriented along axis. **Leaves:** opposite decussate, simple, petiolate fused as a pairs of ledges across node, without stipules; petiole flat and flared at node, to 4 mm long, pinkish to rose, 3-veined, hairy; blade elliptic to oblong-oblancheolate or lanceolate, in range 20–40 × 4–10 mm, tapered at base, entire and often wavy on margins, acute at tip, pinnately veined with midrib sunken on upper surface and raised on lower surface, surfaces with loose hairs and appearing dull green or tinged reddish. **Inflorescence:** spikes, highly condensed on terminal panicles, the panicle axes to 500 mm long, with long, stemlike internodes to 200 mm long decreasing upward, mostly lacking green leaves, each spike with 15+ flowers, flowers helically alternate and tightly crowded (in range with flowers arranged along 5 contact parastichies), axillary spikes ± hemispheroid in outline, the terminal spike solitary and with minor spikes at base, the principal spike somewhat cylindrical in outline, in range mostly 10–20 × 7–8 mm, with maturing fruits at base, with matted woolly hairs; rachis hidden by flowers and developing fruits, bracteate, woolly; bract subtending spike acuminate-triangular to awl-shaped cupped around the first-formed flower, ca. 2 mm long; bractlet subtending and appressed to flower, cupped acute-ovate, ca. 1.5 × 1.3 mm, with new flower buds at tip purplish and scarious aging and dark straw-colored as pigment fades, with 1 vein raised on lower surface, lower surface with scattered woolly hairs, persistent on spike after fruits abscise, bractlet also subtending 2 membranous, opposite bracteoles, the bracteoles oriented on and appressed to sides of flower, broadly ovate and cupping, 2–2.5 mm wide, 1-veined, thin-scarious drying somewhat papery and dark straw-colored, cordate at base and rounded to notched at tip, glabrous, persistent on developing fruit. **Flower:** bisexual, initially radial, ca. 1.5 mm across compressed slightly side-to-side, at anthesis flower ovoid and about 2.5–3 mm long (calyx); **calyx** 5-lobed; tube somewhat conic, ca. 1.5 mm long, green, not thickened, covered with matted woolly hairs; lobes suberect, triangular, ca. 1 mm long, green to midpoint then colorless in center and purplish margins, with woolly hairs on outer (lower) surface; **corolla** absent; **stamens** 5, fused into column with erect lobes at top, 2 mm long, inserted and not visible on outside of flower; column teepeelike, somewhat greenish below midpoint and colorless above, at narrow orifice with 5 colorless lobes, the lobes rounded to truncate, 0.4 × 0.25 mm; anthers sessile at sinuses of lobes, dorsifixed, monotheal, 0.5 mm long, light yellow, longitudinally dehiscent; pollen light yellow; **nectary** absent; **pistil** 1, enclosed within staminal column, initially 0.8 mm long expanding after pollination to conic (stretching staminal column); ovary superior, ovoid, green, glabrous; style short elongating in fruit, whitish, with terminal, capitate, white stigma. **Fruit:** utricle, enclosed

by a persistent outer, spinescent, indehiscent wall (= calyx tube); outer wall flat-bottomed flask-shaped, in range ca.  $3.5 \times 3$  mm, wall thick, hard (indurate), with (3)5 vertical ribs armed with hard spines to 1 mm long, outer wall initially green and densely covered with matted woolly hairs; utricle indehiscent, 1-seeded, papery, flask-shaped, ca.  $2 \times 1.5 \times 1.2$  mm, aging brown, glabrous, with persistent style. **Seed:** subspheroid, ca. 1.1 mm, aging yellowish.

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