

Vascular Plants of Williamson County
Justicia pilosella – HAIRY TUBETONGUE [Acanthaceae]

Justicia pilosella (Nees) Torrey (= *Siphonoglossa pilosella*), HAIRY TUBETONGUE. Perennial herb (suffrutescent), not rosetted, several-stemmed at base, many-branched, in range decumbent forming low mound to 10 cm tall; shoots with only cauline leaves, pubescent, foliage conspicuously ciliate with white short-hirsute and hirsute hairs to 1 mm long; not rooting at aerial nodes. **Stems:** 2-ridged, mostly < 1.5 mm diameter and light yellow-green but to 3 mm on old basal stems, on each internode with an opposite pair of broad ridges descending from leaves at node and each ridge defined by a pair of narrow furrows, ridges alternating with a line of radiating to backward-leaning hirsute and short-hirsute hairs; pith solid, slender, and white. **Leaves:** opposite decussate, simple, subsessile with pair connected by ledgelike thickenings across nodes, without stipules; petiole hemi-cylindrical, appearing to 2 mm long but shorter having some narrow blade tissue often to midpoint with a thickened edge, whitish, ciliate on edges with to 5 \perp hairs per edge, having several short-hirsute hairs on lower side; blade elliptic (oval, elsewhere ovate), in range to 20(–40) \times 9(–15) mm, pinnately veined with principal veins slightly raised on both surfaces, tapered at base + narrow extension along petiole, entire and conspicuously ciliate on margins, rounded (obtuse) at tip, surfaces lacking hairs and at least midrib somewhat whitish. **Inflorescence:** in range of paired axillary flowers (opposite decussate) and leafy (leafy spikelike raceme on a short peduncle); peduncle and rachis in range not observed; bractlets (bracteoles) 2, opposite, suberect, leaflike, obtuse-oblongate, 8–9.5 \times 2.5–3 mm, pinnately veined, conspicuously ciliate in margin. **Flower:** bisexual, bilateral, in range ca. 12 mm across; **calyx** 4–5-lobed, ca. 7 mm long, light green; tube 1–1.5 mm long; lobes linear-lanceolate, 5.5–6 \times 0.8–1 mm, light green, 3–5-veined at base, short-ciliate on entire margins; **corolla** 2-lipped, appearing 4-lobed, 23–28 mm long; tube + throat slender, 16–20 mm ca. 1.5 mm diameter, white, throat indistinct from tube, lower portion glabrous but mostly short-hairy, ribbed and with indentation on lower side approaching top approaching central lobe of lower lip; upper lobe short-notched with rounded margins (emarginated), projecting forward and \pm oblong, in range 8.5–9 \times 2 mm, margins somewhat inrolled below midpoint; lower lip 3-lobed, lobes in bud overlapping, fan-shaped and deflected downward, lateral lobes obtuse-obovate, ca. 7 \times 4 mm (central lobes and 6.5–7 \times 3.5 mm (lateral lobes), upper surface light pink-purple minutely papillate and glabrous, on throat with white design, lower surface white with pale purple approaching margins and with raised veins and short-hairy; **stamens** 2, fused to corolla tube + throat decumbent downward; filaments free portion ca. 5 mm long, white, fleshy, arising beneath lip sinus, glabrous, twisted with anthers display to center; anthers dorsifixed, dithecal, oblique with unequal sacs, ca. 1.4 mm long, light green and light yellow, the longer sac with an acute basal lobe tinged red, transversely dehiscent; pollen pale yellow aging white; **nectary disc** below ovary, rim scalloped, 0.35–0.4 mm long, yellowish to whitish; **pistil** 1, 16–22 mm long; ovary superior, torso-shaped with base truncate, 1.3 \times 1 \times 0.6 mm, lower portion elongating in fruit and upper portion containing ovules expanding, green, glabrous, 2-chambered, each chamber with 2 ovules; style cylindrical, 14–20.5 mm long, light green only at base and white above, lower portion with several short hairs; stigma capitate, minutely 2-lobed, to 0.35 mm long, at same level as anther sacs. **Fruit:** capsule, loculicidal, 2-valved, to 4-seeded, club-shaped

with seed chambers above midpoint, 8–9.5 × 3–3.5 mm, brown, with seeds vertically erect and parallel to septum, having persistent style but lacking a beaklike point at top. **Seed:** waferlike and ± inversely heart-shaped, 2.8–3 × 2.8–3 × 0.8 mm, mostly brown with beige, faces flattish to somewhat convex, small-notched where attached to funiculus and hilum white, faces bumpy (tuberculate).

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