

## Vascular Plants of Williamson County

*Symphotrichum lanceolatum* var. *hesperium* – LANCE-LEAVED ASTER, WHITE-PANICLED ASTER [Asteraceae]

*Symphotrichum lanceolatum* (Willd.) G. L. Nesom var. *hesperium* (A. Gray) G. L. Nesom, LANCE-LEAVED ASTER, WHITE-PANICLED ASTER. Perennial herb, clumped, rhizomatous, fibrous-rooted, 1-stemmed at base, with ascending to decumbent shoots, in range 20–90+ cm tall; gynomonocious; shoots with basal leaves and cauline leaves, mostly appearing glabrous but sparsely short-hairy, having minute and inconspicuous glandular hairs on foliage. **Stems:** low-ridged aging cylindric, to 3.5 mm diameter, with 3 ridges descending from each leaf, from each leaf with a decurrent fine line of puberulent hairs and often a patch of short hairs above each node, aging glabrescent having hairs mostly persisting in grooves. **Leaves:** helically alternate, simple, petiolate (basal leaves) and sessile (cauline leaves), without stipules; petiole tapered, winged and indistinct from blade, parallel-veined; blade of basal leaves nearly fully sheathing stem, oblanceolate, 50–100 × 8–15 mm, 1-veined at base, entire and ciliate on margins, acute and minutely prowl-like at tip with a subterminal point on lower surface, pinnately veined with midrib raised on lower surface, glabrous; blade of upper cauline leaves elliptic or linear to linear-lanceolate, 15–90 × 1–11 mm, tapered at base, minutely serrate on margins often inconspicuously scabrous along teeth margins, acute at tip, pinnately veined, upper surface sparsely puberulent-strigose with upward-pointing hairs, lower surface glabrous but having evenly spaced minute glandular hairs, with conspicuous minor vein network.

**Inflorescence:** heads, in terminal, racemelike or paniclelike arrays, head radiate, 20–34 mm across, in range with 17–25 ray flowers and 17–40+ disc flowers, bracteate; peduncle ascending, slender, low-ridged, with several bracts, the bracts along axis leaflike and linear-oblanceolate to linear, decreasing upward with those near head 5–7.5 × 0.7–1.2 mm and indistinct from and transitional to involucre phyllaries, subentire with minute teeth on margins and often puberulent-ciliate below midblade; **involucre** bell-shaped, ca. 6 × 4 mm, in range phyllaries ca. 30 in 4 series, subequal, oblong-linear, in range 4–5.5 mm long increasing upward, with several minute teeth on margins and minute glandular hairs on green tissue, outer phyllaries most green, middle phyllaries whitish with greenish midvein to midblade and green above, inner phyllaries mostly white with green midline and a fusiform green patch on exposed upper portion, short-ciliate on margins, having scarios margins, acute at tip; receptacle ± flat, without bractlets (paleae), honeycombed, with scarios crown surrounding each ovary of disc flowers. **Ray flower:** pistillate, bilateral, 1–2 mm across; **calyx (pappus)** of capillary bristles, the bristles ca. 30 in 1 whorl, equal, in range ca. 4 mm long, white; **corolla** unlobed or minutely 2–3-toothed; tube cylindric, ca. 3.5 × 0.2 mm, < pappus, colorless, with scatted short hairs above midpoint; limb widely spreading, narrowly oblong to linear-oblanceolate, 6–9 × 1.3–1.6 mm, solid white, lacking hairs, aging coiled; **stamens** absent; **pistil** 1; ovary inferior, compressed-obovoid with flat outer face, 1–2 mm long, whitish, inconspicuously 5-ribbed, short-strigose, 1-chambered with 1 ovule; **nectary disc** swelling at base of corolla tube forming a small ring around base of style, 0.1 mm long, light green; style exerted to 2 mm from corolla tube, 5–6 mm long, 2-branched, the branches divergent, slender, 1.5–2 mm long, pale yellow, rounded at tip, minutely papillate-hairy entire length. **Disc flower:** bisexual, radial, 2 mm across, ca.

7.5 mm long; **calyx (pappus)** of capillary bristles, the bristles ca. 30 in 1 whorl, equal, in range ca. 4 mm long, white; **corolla** (4–)5-lobed, glabrous; tube (4–)5-ribbed, ca.  $2 \times 0.2$  mm, colorless; throat bell-shaped,  $1.5 \times 1$  mm, colorless, having (4–)5 veins (ribs) to sinuses; lobes ascending to spreading-ascending, acute-triangular, 1–1.3 mm long, center colorless with pale yellow margins; **stamens** (4–)5, fused to corolla at base of throat; filaments ca. 1 mm long, colorless; anthers mostly exerted, basifixed, dithecal, 2 mm long including threadlike tails and acuminate appendages at tip, golden yellow, tails ca. 0.2 mm long and golden yellow, appendages ca. 0.4 mm long and crimson, longitudinally and inwardly dehiscent; pollen golden yellow; **pistil** 1, ca. 5.5 mm long; ovary inferior, compressed-obovoid with flat outer face, 1–2 mm long, whitish, inconspicuously 5-ribbed, short-strigose, 1-chambered with 1 ovule; **nectary disc** swelling at base of corolla tube forming a small ring around base of style, 0.1 mm long, light green; style ca. 5.5 mm long, 2-branched, mostly colorless with 4 yellowish ridges approaching tip, the branches slightly tapered, 1.5 mm long, yellow, narrowly acute at tip, papillate-hairy from midpoint, flat on inner face. **Fruits:** cypselae, monomorphic, compressed-obovoid,  $\pm 2 \times 0.7$  mm, grayish tan, 4–5-ribbed, densely short-strigose with upward-pointing hairs, with a tannish callus at base; pappus of ca. 30 capillary bristles fused at base, ascending, mostly ca. 4 mm long, whitish, persistent.

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