

Vascular Plants of Williamson County

Verbena neomexicana var. *hirtella* – HILLSIDE VERVAIN [Verbenaceae]

Verbena neomexicana (A. Gray) Small var. *hirtella* L. M. Perry, HILLSIDE VERVAIN.

Annual, taprooted, not-rosetted, 1–several-stemmed at base, in range to 70 cm tall; shoots with only cauline leaves, axes and foliage with stiff hirsute and short-hirsute hairs and glandular hairs. **Stems:** mostly 6-ridged, to 5 mm diameter at ground level, with 3 prominent ridges descending from each leaf (6 per node) per internode, with a pair of deeper furrows from a node above leaves, with nonglandular and glandular hairs along ridges. **Leaves:** opposite decussate, serrate, simple, and sessile, without stipules; blade oblanceolate, < 25–40 × 6–12 mm, base totally fused to stem at node, serrate with alternating long and shorter teeth on margins, the margins often inrolled to lower side, acute-ovate at tip, pinnately veined with principal veins sunken on upper surface and conspicuously raised on lower surface, densely hirsute and glandular hairs inconspicuous on mature leaves. **Inflorescence:** spike, terminal or later with a pair of shorter lateral spikes ascending at base of central spike, 100–200+ mm long, 40+-flowered, flowers alternate, 3–4/10 mm, in fruit 5 mm diameter, bracteate, hirsute and short-hirsute and with stalked glandular hairs with colorless heads; bracts subtending terminal spike or 3-branched inflorescence 2 and opposite, leaflike; rachis ridged with 1 ridge descending from each bractlet, stemlike, tough; bractlet appressed to calyx of flower, acute-ovate, mostly 3 × 1.5 mm (to 4 mm long at the lowest nodes), green or with red-purple tip, short-ciliate on margins and along raised midvein, with some stalked glandular hairs, hidden surface glossy green lacking hairs. **Flower:** bisexual, ± bilateral, ca. 5 mm across (corolla); **calyx** short 4-lobed, ca. 3.5 mm long, > bractlet, flattened front-to-back; tube with 4 green panels alternating with membranous panels later expanding, 3 × 1 × 0.6 mm, membranous tissue light purple on and approaching margin and short-ciliate; teeth (lobes) ca. 0.25 mm long, red-purple; **corolla** equally 5-lobed; cylindric, 1.5 × 0.8 mm, colorless but with upper portion with a pair of opposite, light rose-purple panels, glabrous; throat lower portion ± 4-sided, ca. 2.5 mm long, light rose-purple, outer surface short-hirsute, inner surface with short white hairs and defined at top with a ring of stiff, white, inward-leaning short-hirsute hairs concealing anthers and style, upper portion fully exerted from calyx, funnel-shaped, ca. 3 × 3 mm, light to dark lavender (pink-purple); lobes spreading, ca. 1.5 × 1.3 mm, dark lavender (pink-purple), shallowly notched to 0.4 mm long, glabrous; **stamens** 4 in 2 pairs, subsessile attached to corolla at 2 slightly different levels, lower pair at top of corolla tube and upper pair on lower portion of throat ca. 0.5 mm above lower pair, with minute hairs on corolla throat next to filaments and left 2 stamens separated with a beard of short white hairs from right 2 stamens; anthers dorsifixed, dithecal, 0.25 mm long, light yellow, longitudinally dehiscent; pollen light yellow; **nectary disc** inconspicuous beneath pistil, 0.1 mm long, green, producing thin nectary filling corolla tube; **pistil** 1, 2 mm at anthesis; ovary deeply 4-lobed 0.6 × 0.4 mm, lobes cylinderlike, pale green, glabrous, 2-chambered, each chamber with 1 ovule in each lobe; style arising from small depression at top of ovary, included in corolla hidden by ring of hairs, erect, ca. 1.3 mm long, greenish aging white, flattened and flared approaching 2-forked tip, terminal fork triangular and 0.25 mm long with colorless hemispheroid stigma on inner side (aging green), triangular lower fork 0.1 mm long. **Fruits:** schizocarp (microbasarium), of 4 dry, 1-seeded mericarps (nutlets), nutlets 3-sided, oblong, ca. 2 × 0.5 mm, dark brown, with fine, pale brown to white warty

growth (muricate) or papillate on inner faces, outer faces with approximately 6 vertical rows of pits, attachment scar at abase of inner faces white.

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