

Vascular Plants of Williamson County
Verbena brasiliensis – BRAZILIAN VERVAIN [Verbenaceae]

Verbena brasiliensis Vell., BRAZILIAN VERVAIN. Annual (short-lived perennial herb), taprooted, not rosetted, 1–several-stemmed at base, with paired, spreading to ascending lateral branches, ascending to erect, in range to 230 cm tall; shoots with paired cauline leaves along photosynthetic, green stems having long internodes, internodes > leaves, short-hairy with stiff hairs having enlarged bases (pustulate) and somewhat scabrous and having minute sessile glandular hairs with colorless heads. **Stems:** conspicuously 4-sided, to 5.5 mm diameter, tough, green throughout even woody longer stem, with 4 edges = ridges descending as 2 pairs from pair of ledges at node, faces 2 mostly flat and 2 (ledge side) deeply channeled, with minute, sessile glandular hairs and short hairs especially along ledges and ridges mostly pustulate and often short-strigose upward-pointing. **Leaves:** opposite decussate, simple and sessile (subsessile) nearly fused as ledges across node, without stipules; blade elliptic to oblanceolate, < 35–75(–135) × 9–20(–35) mm, long-tapered at base and not clasping, sharply serrate on margins at least above midblade, acute (acuminate) at tip, pinnately veined with principal veins sunken on upper surface and raised on lower surface, uniformly short-hirsute. **Inflorescence:** panicle of spikes, terminal, open, of 3–4 orders of opposite decussate branches and branchlets, spike many-flowered, to 50 × 5 mm, of opposite decussate flowers, bracteate, short-hirsute and often scabrous on green structures; bracts subtending inflorescence 2, opposite decussate and leaflike; axes 4-sided, stemlike with 2 faces flat (descending from bracts), 2 faces deeply channeled, and edges = ridges, hairs ascending to short-strigose, photosynthetic and green, with minute, sessile glandular hairs; bract subtending secondary branches acuminate-triangular, mostly 7–8 mm long, 1-veined with midvein raised on lower surface and swollen at base; axes of secondary branches slender 4-sided, 30+ × < 1 mm; bracts subtending 3-order branches ca. 4 mm long, subtending 4-order branchlets ca. 3 mm long, scabrous-ciliate; rachis densely short-hirsute concealing sessile glandular hairs; bractlet subtending flower triangular, ca. 3 × 0.8 mm, green, 1-veined. **Flower:** bisexual, ± radial, 2.5 mm across, ca. 5 mm long; **calyx** 5-lobed, with 3 lobes on upper side of flower and 2 lobes on lower side of flower, in range ± 3 mm long = bractlet; tube somewhat 5-angled, ca. 2.5 mm long, green alternating with membranous panels, outer surface short-hirsute, inner surface glabrous; lobes erect, somewhat deltate, green with purple at tip, 1-veined raised on outer (lower) surface, with short-hirsute hairs on both surfaces; **corolla** 5-lobed, short trumpet-shaped, with 2 lobes on upper side of flower and 3 lobes on lower side of flower; tube + throat ± cylindric, ca. 4 mm long, > calyx, tube 1 mm long, white, glabrous; throat light purple (lower portion) and whitish (upper portion), outer surface with white short hairs, inner surface with conspicuous (wider) and denser white short hairs above the level of anthers; lobes widely spreading, rounded, 0.8–1 mm long, violet-purple (darker approaching margins); **stamens** 4, attached to top of corolla tube, included; filaments 0.4–0.5 mm long, white; anthers dorsifixed, dithecal, 0.3 mm long, dull light yellow, longitudinally and inwardly dehiscent; pollen yellowish; **nectary disc** below ovary; **pistil** 1, 2 mm long, included; ovary superior, 4-sided and somewhat 4-lobed, ca. 0.7 × 0.45 mm, dull green, glabrous, 4-chambered, each chamber with 1 ovule; style erect, pale green, with 2-forked tip, dark green stigma in crotch, the longer fork slightly surpassing stigma and clawlike. **Fruit:** schizocarp (microbasarium) of 1–2(–4) dry, 1-seeded mericarps,

mericarps oblong, 1.5–1.8 × 0.45–0.55 mm, brown on outer faces, inner angles with whitish, fine, warty growths (muricate) on inner faces, longitudinally veined on outer faces with several cross veins approaching tip.

A. C. Gibson