

Vascular Plants of Williamson County

Cyperus entrerianus – DEEP-ROOTED SEDGE, WOODRUSH FLATSEGE [Cyperaceae]

Cyperus entrerianus Boeckeler, DEEP-ROOTED SEDGE, WOODRUSH FLATSEGE. Perennial herb, clonal, rhizomatous, densely fibrous-rooted, rosetted and tufted with dead leaves, scapose, 1–several-stemmed from rhizome, with suberect to erect inflorescences in range 50–110 cm tall (incl. ascending leaflike bracts in inflorescence = inflorescence bracts); shoots with only basal leaves, many basal leaves per shoot, foliage of ascending, V-folded blades, glabrous and scabrous; rhizomes creeping, to 12 mm diameter, white, with short internodes, in \times -section with scattered brown veins, the scales appressed, acute-broadly triangular, e.g., 15 mm long, often concealed by persistent leaf sheaths, aging dark brown and fibrous; adventitious roots from rhizome erupting through scales and leaf sheath.

Stems (culms): = peduncle (scape) above attachment of basal leaves, to 6.5 mm diameter, 3-sided (trigonus) rounded on angles, in range 550–900 mm long, tough, green, not scabrous; solid. **Leaves:** alternate, simple with sheath; sheath closed, increasing upward to 110 mm long, often dark purple-red at base grading to green above with a wide, membranous panel, the panel aging pale brown often with dark brown dots and having a U-shaped sinus splitting downward; ligule absent; blades linear increasing upward with the longest leaf touching inflorescence, in range mostly 500–950 \times 3–10(–14) mm, the widest near blade base, tough, scabrous on margins, long-tapered to tip, parallel-veined with midrib raised and scabrous on lower surface, surfaces mostly smooth and glossy.

Inflorescence: spikelets, 150+, in condensed, headlike clusters, each head having many upright stacks of to 6 spikelets in close flanks (digitately arranged), the clusters in a simple or compound umbel-like array terminal on scape (culm), primary branches (primary rays) helically alternate, (6–)8–13, ascending to suberect, the longest primary ray 40–140 \times 1–3 mm, decreasing on each shoot, each primary ray subtended by an ascending leaflike bract, on a robust specimen with an umbel-like array of heads to 60 mm across on widely spreading secondary rays at top of primary ray with 5–6 heads of spikelets, the largest head central (terminal) in the array, heads < 7–15+ mm across, bracteate, glabrous; primary bracts (inflorescence bracts) ascending, 1 per primary ray and 5–7 primary bracts > all heads of the shoot, to 550 \times < 3–12 mm decreasing upward, the longest bracts often inward-drooping from midblade and with sheath having membranous margin to 10 mm long decreasing upward, blade V-folded, linear and long-acuminate, scabrous on margins and lower midrib; primary ray cylindrical or compressed top-to-bottom, with pulvinus at base, solid, at base concealed by prophyll, the longest prophyll closed, 2-keeled, to 17 mm long expanded around swelling, the keels of long prophylls scabrous and the sinus to 5 mm, 2-pointed with concave notch between points at top; bract subtending secondary ray widely spreading, linear, to 25 mm long and secondary bract < secondary ray, scabrous, the longest secondary prophyll closed and to 7 mm long, not scabrous and sinus to 2 mm deep; head with digitately arranged sets of spikelets, set subtended by bract, ca. 2 mm long with green stripe and flaring membranous margins; stalk of spikelet \pm 0.5 mm long; **Spikelet:** < 15-flowered, ovate and strongly 2-dimensional flattened side-to-side, ca. 3 mm wide, florets alternate distichous, fruit within bractlet abscising from base upward, flowers subsessile; glumes (bracts subtending spikelet) 2, alternate appearing on flattened sides, membranous, lower glume < 0.5 mm long, upper glume sheathing-ovate, ca. 1 \times 1 mm, \pm rounded to obtuse at tip; rachilla with spikelets spaced; bractlets (floral scales) overlapping,

bractlet subtending flower sheathing and cupped around flower, in range 1.4–1.75 mm long, on each side ca. 0.5 mm wide below midpoint, light green back with colorless wide margins, 2-keeled (2-ribbed) from base to or above midpoint with short point at tip, curved toward tip (never outward-curved), in range exposed back \pm scabrous to tip, weakly 1-veined on each side between green and membranous tissue. **Flower:** bisexual, < 0.5 mm across; **perianth** absent; **stamens** 1, free; filament slender, ± 1.5 mm long (when exerted), colorless; anther commonly exerted, in range 0.6–0.7 mm long, light greenish yellow with a short colorless tip (connective), longitudinally dehiscent; pollen pale yellow; **pistil** 1, 1 mm long on minute stalk (stipe) 0.1 mm long; ovary superior, equally 3-sided and ellipsoid, ca. 0.4 mm long, whitish, 1-chambered with 1 ovule; style ca. 0.7–0.8 mm long, translucent, 3-branched, the fork 0.2–0.4 mm from base (below midpoint), the stigmatic branch tips partially exerted and nearly fully exerted in fruit, threadlike, aging reddish to brown. **Fruit:** achene, abscised wrapped by bractlet, short-stalked, the stalk ca. 0.1 mm long; achene ellipsoid (lanceoloid) 3-sided and 3-angled, $0.85\text{--}1.0 \times 0.3$ mm, green drying brown, rounded on edges, faces minutely textured (reticulate); bractlet drying pale brown and colorless, < 2 mm long.

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