## **Vascular Plants of Williamson County**

Cyperus reflexus — BENT-AWN FLATSEDGE [Cyperaceae]

Cyperus reflexus Vahl, BENT-AWN FLATSEDGE. Aquatic perennial herb, rhizomatous, fibrous-rooted, scapose, not rosetted, several-stemmed at base, branches arising from rhizome, with ascending to suberect inflorescences in range < 30–90 cm tall; shoots with only basal leaves, foliage of ascending to spreading, V-folded blades, glabrous; rhizomes relatively short, to 6 mm diameter, white, the scales closed, 2–3 mm long, white with purple-red veins. **Stems (culms):** = peduncle above attachment of basal leaves, where ensheathed by leaves cylindric, to 4 mm diameter, where exposed 3-angled and 3-sided (trigonous), rounded on angles, 200–800 mm long, tough, green, not scabrous. **Leaves:** alternate tristichous, simple with sheath or with only sheath (leaves 1 and 2); sheath closed, increasing upward to 130 mm long, with many purple-red parallel veins, of the first leaves acute, to 35 mm long, veins low-raised on outer surface, tissue with long air canals; ligule absent; blades linear increasing upward,  $130-350 \times 2-10$  mm, the widest at base longtapered to tip, minutely scabrous on margins, parallel-veined with upper surface having raised veins alternating with furrows. **Inflorescence:** spikelets, 100+, in leafy paniclelike and umbel-like arrays, terminal on scape, with many spikelets on ascending primary branches from a short, erect rachis, each primary branch with a terminal, dense, headlike, umbel-like cluster of many radiating spikelets, the largest inflorescence with 3-6 stalked branches and several umbels sessile at top; headlike array when condensed to 50 mm across, wider with longer branch axes, each primary branch subtended by an inflorescence bract (terminal spikelet cluster bractless) + a sheathing "bract" (prophyll); inflorescence bracts subtending primary branches alternate and somewhat tristichous along rachis [bract 1(-2) often subtending abortive branch], ascending, leaflike but sheathless and fused to 2 faces of stem, 4–6 > primary branches, blade V-folded, leaflike and linear to acuminate, the lowest to 295 × 7 mm, successively shorter and narrower from base to tip of array, most bracts > rays; prophyll sheath closed 3/4 length, to 9 mm long at the first node, decreasing upward, aging scarious with purple-red parallel veins, expanded at base around pulvinus, 1–2-keeled; primary branch axis with pulvinus on upper side at base, compressed front-toback, to 55 mm long, successively shorter from base to tip of array, the pulvinus shortringlike and whitish to greenish; the rachis 3-angled, upper portion hidden by spikelets. **Spikelet:** to 43-flowered, oblong and strongly 2-dimensional (plagiotropic), elongating to  $23 \times 3.5 \times 1$  mm but florets with mature fruits abscising from base upward so intact portion < 15 mm long, flowers alternate distichous, sessile, bisexual, bracteate, glabrous; glumes (bracts subtending spikelet) 2, distichous, 9.5 mm long decreasing upward to 2.5 mm; rachilla with spikelets spaced 0.6 mm apart on each side, flattened, greenish, persistent and red-purple with orangish midvein after florets abscised; bractlets (floral scales) overlapping, bractlet subtending flower sheathing and cupped around flower, in range 2–2.2 mm long, green with colorless wide margins aging reddish on coarsely textured upper portion and lower portion yellow or greenish sharply defined by the lateral line, 2keeled at base to midpoint from base with midvein, slightly concave between keels and weakly 1-keeled at tip, entire, tip straight, persistent. **Flower:** bisexual, < 0.5 mm across; **perianth** absent; **stamens** 1, free; filament threadlike, 1.6 mm long, white; anther in range ca. 0.7 mm long, pale yellow, with short point at tip; **pistil** 1, with minute stalk (stipe); ovary superior, equally 3-sided and slightly obovoid, 0.3–0.5 mm long, greenish, 1chambered with 1 ovule; style ca. 1.5 mm long, translucent, 3-branched below midpoint, the stigmatic branch tips exserted, threadlike, to 0.6 mm long. **Fruit:** achene, abscised wrapped by bractlet, short-stalked, the stalk ca. 0.1 mm long; achene obovoid 3-sided and 3-angled,  $0.8-0.9\times0.3-0.4$  mm, red-brown to brown appearing somewhat metallic, rounded on edges, faces minutely textured; bractlet drying pale brown but inner surface with red specks and streaks.

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