

Vascular Plants of Williamson County
Cyperus retroflexus – ONEFLOWER FLATSEEDGE [Cyperaceae]

Cyperus retroflexus Buckley, ONEFLOWER FLATSEEDGE. Perennial herb, bulblike at base of each shoot, tufted, fibrous-rooted, in range to 50 cm tall; shoots with only basal leaves + several leaflike inflorescence bracts subtending reproductive canopy at tip of stem, typical 2 basal leaves = only sheath (blade absent or having a short point at tip), glabrous; rhizome shallow, hidden by persistent, papery leaf sheaths with red-purple veins, broadly ovoid, to 7 mm across, white, with new shoots arising from axillary buds on the lower portion just above nodal adventitious roots. **Stems (culms):** 3-sided rounded on edges, < 3 mm diameter, light green; internodes solid. **Leaves:** alternate tristichous, simple with sheath; prophyll low 2-keeled, to 6 mm long, membranous aging papery with red-purple parallel veins; sheath closed with membranous panel truncate at top; ligule absent; blade linear and V-shaped strongly folded upward from midrib, in range to 210 × 4 mm, essentially entire and sparsely scabrous with minute, widely scattered ascending teeth on margins, long-tapered at tip, parallel-veined with midrib raised on lower surfaces, surfaces smooth, lower surface sparsely scabrous along midrib. **Inflorescence:** spikelets, in spikelike panicle of radiating spikelets (horizontal and $\pm \perp$ to axis) in terminal cluster at the end of each primary branch (primary ray), cluster of 50+ spikelets appearing cylindric and ca. 16 mm diameter, terminal on scape, outline of inflorescence with ascending to suberect primary rays, in range forming to 7 primary rays, primary rays to 65 mm long decreasing upward with the youngest appearing erect, central, and unstalked, bracteate, glabrous; each primary ray subtended by an ascending, leaflike inflorescence bract (terminal spikelet cluster bractless) + a sheathing “bract” (prophyll), inflorescence bracts subtending alternate and tristichous, ascending, leaflike but sheathless and fused to 2 faces of stem, in range to 3–4 inflorescence bracts >> spikelets, blade V-folded and linear to acuminate, in range the lowest blade to 210 × 4 mm, successively shorter and narrower base-to-tip of array, of the youngest primary rays often inconspicuous; prophyll concealing bases of primary rays, closed, low 2-keeled, to 11 mm long at the first node decreasing upward, papery, dark red-purple at base grading to colorless above prophyll midpoint, sinus to 1 mm long; pulvinus at bases of primary rays present; spikelets helically alternate (2/5 phyllotaxis) closely spaced along “rachis” on short, persistent stalks, each stalk with an axillary pulvinus to facilitate radiating spikelets, stalk with pulvinus visible after spikelets abscise. **Spikelet:** in range typically (1–)2-flowered + 1 sterile terminal floret, linear, not flattened and 2-dimensional (plagiotropic), in range mostly (5–)7.5–8 × 1 mm, florets alternate distichous, subsessile, bisexual, bracteate, glabrous; glumes (bracts subtending spikelet) 2, distichous and appressed, triangular, lower glume ca. 1 mm long, upper glume ca. 1.5 mm long, 1-veined; bractlets (floral scales) overlapping, bractlet subtending fertile flower sheathing and cupped around flower, in range 3.5–4 mm long, with light green midstripe (several parallel veins) and membranous sides each with 3–6 parallel veins and tissue colorless or veins tinged red, not keeled, obtuse to rounded often with minute point at tip (mucronate); bractlet of sterile terminal flower inrolled. **Flower:** bisexual; **perianth** absent; **stamens** 3, free; filaments slender, to 4 mm long, colorless; anthers basifixed, dithecal, ± 0.4 mm long, pale yellow, longitudinally dehiscent; pollen pale yellow; **pistil** 1, with minute stalk (stipe); ovary superior, ellipsoid equally 3-sided, greenish, 1-chambered with 1 ovule; style in range ca. 1.5 mm long, translucent, 3-branched below midpoint, the stigmatic branch tips

exserted, to 0.9 mm long. **Fruit:** achene, abscised wrapped by bractlet, short-stalked, the stalk ca. 0.1 mm long; achene ellipsoid 3-sided and 3-angled, in range ca. 2×0.7 mm, orangish brown or aging red-brown with purplish red and rounded on edges and short projection at top (beak), faces minutely textured (vertical rows of cells).

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