

**Vascular Plants of Williamson County**  
*Carex emoryi* – EMORY SEDGE [Cyperaceae]

*Carex emoryi* Dewey, EMORY SEDGE. Perennial herb, clonal, rhizomatous, fibrous-rooted, not rosette, many-stemmed at base, when robust forming a dense clump, in range ca. 50 cm tall with relaxed inflorescences; monoecious; shoots with only basal leaves (below inflorescence) although appearing to have numerous cauline leaves, photosynthetic leaves often 15 before flowering occurs and stem not yet formed (nested leaf sheaths form the pseudostem), glabrous; rhizome shallow, creeping and also long spreading, to 5 mm diameter, solid; adventitious roots arising at rhizome nodes. **Stems (culms):** delayed in formation eventually growing up through the sheath of the latest leaf as the inflorescence; visible axis conspicuously angled and scabrous, above the longest leaf sheath 4-ridged (not noticeably 3-sided) with 1 face concave to portion approaching inflorescence (peduncle) often 6-ridged with flat and concave faces, ridges having short, stiff, upward-pointing (antrorse) teeth. **Leaves:** alternate tristichous, simple with sheath; sheath of the oldest leaves (on each shoot) open, of leaf 3 or 4 and above closed, open sheath slightly overlapped at node, sheath roughly 3-sided closed via a membranous panel for 1/3 of the circumference, panel at the top subtruncate to shallowly convex, membranous lacking veins often tearing irregularly, other 2 faces of tissue initially colorless but veins aging red then brown, vascular tissues having a set of longitudinal air canals with each canal forming widely spaced, weak septa; ligule membranous, attached to upper surface of blade ca. 4 mm and 2-lobed notched at midrib, ligule  $\pm 0.5$  mm tall; blade linear folded upward from midrib V-shaped in  $\times$ -section, most foliage 150–650  $\times$  3.5–6 mm, minutely toothed or entire on margin, long-tapered to tip, parallel-veined with midrib raised on lower surface, surfaces not papillate, glabrous and not glaucous. **Inflorescence:** spikes of unisexual flowers in 1-flowered spikelets, terminal, paniclelike < 250 mm long, each spike fully mature spike dense, of 150–500 helically alternate florets, florets condensed and tightly overlapping (mainly 3/8 phyllotaxis) oriented in 8 nearly vertical files (orthostichies), the panicle below midpoint having 2–5 nodes each with an erect to ascending axillary spike, each lateral spike short-stalked and having mostly pistillate florets but 60+ staminate florets at top (androgynous) with staminate structure at tip 10–15 mm long, lateral terminal spike slender, in range at anthesis 55–80  $\times$  2 mm increasing diameter 2 $\times$  fruit, terminal spikes 1–3, 1 truly terminal and others forming at its base, having all staminate florets or several pistillate florets at base, terminal spike in range to 25  $\times$  4 mm, staminate floret = bractlet (floral scale) and flower, pistillate floret = bractlet + sac open at top (perigynium) containing pistillate flower, bracteate, glabrous; panicle axis stemlike, 6-ridged, concave above diverging lateral spike, scabrous along ridges, photosynthetic with many stomates between ridges; bract at the lowest node (proximal bract) leaflike and > inflorescence, to 350  $\times$  5 mm, attached to node at top of peduncle, sheath closed but lacking membranous panel, blade V-shaped in  $\times$ -section, long-tapered to tip, and having antrorse on margins and lower midrib, bracts at successive nodes of mostly pistillate lateral spikes decreasing in length with wispy, narrowly blade > spike (much shorter than top of inflorescence); stalk of lateral spikes  $\pm$  3-sided, < 5–10 mm long, subtended by prophyll concealed by the bract sheath, the prophyll closed, to 2 mm long, whitish, basal nodes of spikes with 2/5 phyllotaxis and spaced with visible internodes; bract subtending mostly staminate spikes diminutive, of terminal spike with truncate sheath to 3.5 mm long and an awnlike blade <

spike, of other spikes bract lacking blade and appressed, oblong with rounded tip, 3–4 mm long, green 1-veined with whitish margins, prophyll not observed; bractlet of staminate floret appressed, obtuse-oblong  $2.5\text{--}4 \times 1+$  mm, raised green center raised (boatlike) with green not at tip, winglike margins ca. 0.5 mm wide and whitish but above midpoint blushed reddish; bractlet of pistillate floret appressed, acute-triangular,  $2.5\text{--}4 \times 0.7\text{--}1$  mm, with green stripe 1-veined and margins colorless after pollination blushed reddish on exposed tissue later becoming darkly pigmented and inverted V-shaped in fruit; perigynium at anthesis biconvex-obovate compressed back-to-front, ca.  $1.5 \times 1$  mm, light green with short whitish neck at top, thin-walled and loose around flower, glabrous, faces not papillate, the neck ca. 0.3 mm long with a pair of short teeth at top and a narrow orifice. **Staminate flower:** perianth absent; stamens 3, free, exerted from above midpoint of bractlet; filaments threadlike, 3–4 mm long, whitish, persistent on spike; anthers basifixed, dithecal, ca. 1.5 mm long, pale light yellow with colorless tip, longitudinally dehiscent; pollen pale yellowish; pistil absent. **Pistillate flower:** perianth absent; stamens absent; pistil 1, ca. 5 mm long; ovary superior, ellipsoid, ca.  $0.4 \times 0.25$  mm, translucent, low-ribbed on 2 edges, 1-chambered with 1 ovule; style 2-branched forked at orifice of perigynium, inside perigynium cylindrical, smooth, and translucent, the exerted branches ascending, stigmatic base-to-tip, 2–3 mm long, translucent aging red and twisted, broken off or damaged. **Fruit:** achene, in range not observed, biconvex, ca. 1 mm long, with persistent style (beak); perigynium (in range without included achene) elliptic to slightly obovate compressed front-to-back,  $2.6\text{--}3.2 \times 1.3\text{--}1.6$  mm, somewhat inflated, tannish, with 5 or 7 fine often faint veins on each face.

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