Vascular Plants of Williamson County Carex bulbostylis – GLOBOSE CARIC SEDGE [Cyperaceae]

Carex bulbostylis Mackenz., GLOBOSE CARIC SEDGE. Perennial herb, rhizomatous, fibrousrooted, densely cespitose, many-stemmed at base, in range to 20 cm tall having spreading shoots to 280 mm long; monoecious; shoots with 10+ basal leaves and ca. 3 cauline leaves (each associated with an inflorescence), to 8 basal leaves with green blades + lower basal leaves lacking blades, essentially glabrous; rhizomes cylindric, to 2.5 mm diameter, with white flesh, erect for aerial shoots and covered with fibrous sheaths of leaves and upper basal leaves having axillary bud; adventitious roots from underground nodes. Stems: 3sided, 1 mm diameter, white where covered by leaf sheaths, glabrous. Leaves: alternate tristichous, simple with sheath; sheath closed (except the smallest, scalelike sheaths), 10+ mm long, colorless, with to 23 raised veins, truncate at top with membranous tissue, veins somewhat raised on colorless outer surface, of large leaves with membranous margin to 1 mm wide; ligule truncate to obtuse, in range ca. 0.4 mm long; blade folded upward from midrib or later becoming flat, linear, in range $20-100 \times 2.2-4.3$ mm, entire but short-ciliate near ligule, long-tapered to tip, of cauline leaves sometimes with minute teeth on margins, parallel-veined with 9–17 veins somewhat raised on lower surface below midblade, upper surface smooth, glabrous. Inflorescence: unisexual spikes (both flower types never on the same spike), many-flowered. staminate spike linear to narrowly club-shaped, to 20×1.8 mm, appearing 3- ridged with alternate tristichous bractlets (floral scales), pistillate spike having (3-)4-7 diminutive flowers at top; bract subtending peduncle closed < 2 mm with green blade to 6 mm long; peduncle of staminate spike exserted from sheath, angled, to 28 mm long, green; bractlet subtending staminate flower, the lowest bractlet deltate-ovate, $3.5-4 \times 2-2.5$ mm, having green axis with wide membranous margins decreasing upward and diminutive at top of inflorescence, 3-veined at base with a pair of lateral veins to midpoint and only 1-veined at top extending into point at tip, exposed membranous margins often dotted with scarlet cells, with short point at tip; bract subtending pistillate spikelet with colorless, closed sheath ca. 4 mm long, ligule obtuse and membranous, blade long-acuminate, $> 35 \times 3.3$ mm wide, green, 7-veined, minutely toothed on margins, midvein raised and sometimes with minute scabrous teeth; bractlet (floral scale) subtending perigynium with an ovate body and flat linear tip, 3-veined, membranous with green midstripe, tip $0.8-2.8 \times 0.25-0.3$ mm, not awnlike or stiff; perigynium (= a modified prophyll) obovoid 3-sided, at anthesis $2-2.5 \times 1-1.5$ mm, light green, conspicuously lowridged with many veins, lacking visible teeth at orifice, the orifice circular and 0.15 mm across, glabrous. Staminate flower: perianth absent; stamens 3, free; filaments exserted, threadlike, to 2.8 mm long; anthers dithecal, 2–2.2 mm long, pale yellow, longitudinally dehiscent; pollen pale yellow; pistil absent. Pistillate flower: perianth absent; stamens absent; **pistil** 1; ovary superior, ovoid 3-sided, ca. 0.35 mm long, greenish, 1-chambered with 1 ovule; style 3-branched from greenish bulbous base on top of ovary, the papillate branches 1.5–1.7 mm long, whitish. Fruit: achene, loosely enclosed in perigynium; achene strongly 3-sided (trigonous) wider above midpoint, $2.0-2.1 \times 1.8-1.9$ mm, pale brown, concave on faces with rounded angles, textured with minute point on each cell; lower style (beak) persistent and swollen at base; perigynium obovoid 3-sided, with many raised veins, glabrous.

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