

Vascular Plants of Williamson County

Eleocharis occulta – SPLITSCALE SPIKESEDGE, LIMESTONE SPIKERUSH [Cyperaceae]

Eleocharis occulta S. G. Smith (syn. *E. acutisquamata* Buckley in part), SPLITSCALE SPIKESEDGE, LIMESTONE SPIKERUSH. Perennial herb, rhizomatous, fibrous-rooted, densely tufted (cespitose) from thickened rhizomes concealed by many persistent, dead and new erect to ascending aerial green shoots each with terminal inflorescence, in range to 30 cm tall; shoot each subtended by a membranous prophyll and having a green basal leaf sheath (lacking a blade) concealing the lower portion of a slender, green stem (culm), soon forming a terminal inflorescence above basal leaf sheath, glabrous; rhizome ascending to creeping concealed by persistent, tightly spaced aerial shoots, lobed, 3–5 mm thick, internodes short, flesh whitish and solid; scales on rhizome = 1 prophyll per shoot, the prophyll closed nearly to top and loosely sheathing the basal leaf, membranous, 14–25 mm long, often 2-keeled, aging with reddish veins at base; adventitious roots on rhizome between aerial shoots; prophyll often splitting by enlarging bud at base. **Stems (culms):** several-angled (not strongly flattened), 0.3–0.55 mm diameter, green having 4–7 low ridges (more easily observed when dry); solid. **Basal leaf:** closed to top = a cylindrical sheath tightly appressed to stem, to 50 mm long, subtruncate to truncate and reddish or green at top. **Inflorescence:** spike, solitary and terminal, lanceoloid to narrowly ovoid, in range 3–7(–11) × (1.5–)2 mm, 35+-flowered, the flowers helically alternate (ca. 7 per mm of rachis), bracteate, glabrous; peduncle = stem; bract subtending spike fully sheathing and appressed, 2-lobed ovate (bifid) and from below midpoint, 1–1.2 mm long, mostly red-purple with the lobes acuminate-triangular aging scarious approaching tips; bractlet subtending flower (floral scale) cupped-ovate in outline and 2-lobed above midpoint, 2–2.7 × 1 mm, lobes acuminate with sinus touching central ridge, ridge light green and other tissue colorless below midpoint and light green and often aging mostly red-purple above midpoint with grayish dry tips of lobes and purple drying dark brown. **Flower:** bisexual, bilateral; **perianth** = 0–3 bristles with minute, backward-pointing barbs, if present unequal, short to 0.5 mm long, aging straw-colored or pale brown; **stamens** 3, free, often having anthers fully exerted; filaments ca. 2 mm long, the lower portion narrowly cylindrical, translucent, the exerted upper portion (above midpoint) threadlike; anthers basifixed, dithecal, 1.3–1.5 mm long, cream-colored to pale yellow with colorless tips and minute tails on anther sacs, longitudinally dehiscent; pollen off-white; **pistil** 1; ovary superior, 3-sided, ca. 0.3 mm long, light green, 1-chambered with 1 ovules; styles (2–)3-branched, basal portion (tubercle) spheroid ca. 0.2 mm, light green, slightly constricted on top of ovary, lower portion above tubercle cylindrical, 0.4–0.8 mm long, translucent, the stigmatic branches exerted from bractlet, ca. 1.5 mm long, divergent and arching, conspicuously papillate. **Fruit:** achene with persistent lower style (tubercle) obovoid or somewhat inverted pear-shaped weakly sided, ca. 0.8 × 0.6 mm, brown, weakly textured, with tubercle (persistent base of style) muffin-shaped, ca. 0.15 mm, brown.

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