

Vascular Plants of Williamson County

Scleria oligantha – LITTLEHEAD NUTSEDGE, LITTLEHEAD NUTRUSH, FEW-FLOWERED NUTRUSH, FEW-FLOWERED NUTGRASS [Cyperaceae]

Scleria oligantha Michx., LITTLEHEAD NUTSEDGE, LITTLEHEAD NUTRUSH, FEW-FLOWERED NUTRUSH, FEW-FLOWERED NUTGRASS. Perennial herb, rhizomatous, fibrous-rooted, cespitose, many-stemmed at base forming a dense, bunchgrasslike mound, at flowering with ascending shoots but in fruit shoots widely spreading from plant center, in range 30–55 cm tall, flowering shoots to 85 cm long; monoecious; shoots with a basal leaf and 1–2 cauline leaves, foliage scabrous, puberulent on lower sheaths and having stiff hairs on the lower surface of blades; rhizome condensed producing many shoots from congested axillary buds, to 5 mm diameter, whitish, belowground hidden by fibrous cataphylls, cataphyll obtuse and ca. 5×1.5 mm with raised veins red at attachment with rhizome. **Stems (culms):** 3-sided with concave faces, to 2 mm diameter, white where concealed at base and green on exposed aerial shoots; solid. **Leaves:** alternate tristichous, simple with sheath; sheath closed, 3-sided, to 46 mm long, especially of basal leaf puberulent and having downward-pointing short-strigose hairs along angles, semicircular, papery extension at top $< 1\text{--}2$ mm long, often with a layer of short hairs along its base; blade long-linear stiffly 3-pleated (M-shaped in \times -section), in range $< 120\text{--}545 \times 2.5\text{--}5$ mm, tough and somewhat leathery, green but lower portion white in dense plant center, entire with minute scabrous teeth along and next to margin, long-tapered at tip, parallel-veined with 5 spaced principal veins, to 20-veined, upper surface midrib and the outermost pair of principal veins (near margins) hispid with coarse, stiff hairs to 0.8 mm long often appressed to vein. **Inflorescences:** spikes (“spikelets”), usually in a paniclelike array (sympodial), terminal on principal axis and later axillary to cauline leaf, a zigzagged axis having a series of units consisting of 1 pistillate flower + spikelet of several staminate flowers arising at the base of the pistil (androgynous) or 1 pistillate flower + 1 staminate flower (cleistogamous), bracteate, puberulent; peduncle of principal inflorescence 3-sided = stem, somewhat stiff, green and glabrous, peduncle of axillary inflorescence flat 2-sided (winged), slender and lax, to 250 mm long, having 1 wing decurrent from keel of the lowest bract; bract subtending fertile spikelet mostly leaflike and green but lacking sheath, green blades to 3 per inflorescence, blade spreading, narrowly triangular-linear and keeled, the lowest $45\text{--}100 \times 1.5\text{--}4$ mm, decreasing upward, short-ciliate on margins below midpoint, scabrous like leaf blades; prophyll subtending stalk of cleistogamous spikelet or chasmogamous spike, oblong to obovate and mostly 2-keeled, mostly $3\text{--}4 \times 1.2$ mm, membranous and red, \pm obtuse at tip, puberulent on back; stalk 3-sided, $1.5\text{--}5$ mm long, often aging reddish to crimson, puberulent. **Cleistogamous spikelet:** bractlets (bracts or floral scales) 3, alternate distichous, appressed and nested, on axis with very short internodes, ovate nearly sheathing, the lowest bractlet lacking flower, widely membranous with green axis and point, mostly $2.8\text{--}4.5 \times 1.7\text{--}3$ mm, having membranous wings with several clusters of purple-red spots, the middle bractlet subtending a short stalk of the pistillate flower with a shorter point and 3-veined, the upper bractlet below the pistil subtending a staminate flower = 1 stamen. **Chasmogamous spike (spikelet):** bractlets (bracts or floral scales) as in cleistogamous spikelet, but instead upper bract subtending a spikelet of several staminate flowers, staminate spikelet lanceoloid, ca. 8×1.5 mm, < 10 -flowered, subtending bractlets and having exerted filaments, outer 2 bracts sterile and

alternate distichous, keeled, unequal, 4–7 mm long, with point at tip, puberulent on outer surface and on inner surface above midpoint; bractlets of staminate flower appearing helically alternate, membranous and lanceolate, ca. $5 \times < 0.8$ –1 mm (some slender), aging glossy mottled purple-red, with midvein raised on outer (lower) surface with puberulent hairs. **Staminate flower:** **perianth** absent; **stamen** 1, free; filament ca. 2 mm long, aging red; anther touching stigmatic branches of pistillate flower, basifixed, 0.7–1 mm long, reddish, longitudinally dehiscent; pollen yellowish; **pistil** absent; **staminate spikelet,** **perianth** absent; **stamens** mostly 3, free; filaments ca. 5–5.5 mm long, aging red; anthers basifixed, 1–1.5 mm long, reddish, longitudinally dehiscent; pollen yellowish; **pistil** absent. **Pistillate flower:** **perianth** absent; **stamens** absent; **pistil** 1, seated on a basal disc (hypogynium), hypogynium at anthesis 3-sided and 0.25 mm tall, pinkish, at anthesis with 6–9 bumps (tubercles, tuberculate) having a minute point on each cell; ovary superior, ovoid, ca. 1.3×1 mm, light green, 1-chambered with 1 ovule; style 3-branched, lower portion 0.25–0.5 mm long, the stigmatic branches appressed, ca. 1.5 mm long, and touching anther of staminate flower, purple-red (cleistogamous spikelet) or ca. 4.5 mm long and ascending (chasmogamous flower). **Fruit:** achene, upper half exposed from spreading bracts, 1-seeded, ovoid, 3 – 3.4×1.8 – 2.6 mm, glossy white or pearly gray (brownish), immature glossy light green with 3 paler fine lines tip-to-base, nearly smooth, glabrous, with a short beak at tip (= persistent base of style), beneath achene having a basal disc (hypogynium) somewhat 3-sided and 1.5 mm across (narrower than achene) and 0.25–0.3 mm tall, when fresh whitish, consisting of 8–9 bumps (tubercles, tuberculate), textured and granulate with a minute point on each cell; at the base having a smooth, fleshy white shirt ca. 2 mm across and to 0.4 mm long, abscising from inflorescence leaving a collarlike scar.

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