

Vascular Plants of Williamson County

Rhynchospora nivea – LITTLE WHITETOP SEDGE, SHOWY WHITETOP [Cyperaceae]

Rhynchospora nivea Boeckel., LITTLE WHITETOP SEDGE, SHOWY WHITETOP. Perennial herb, clonal, rhizomatous (somewhat concealed by many adventitious roots and old leaf sheaths), fibrous-rooted, many–100+–stemmed at base, tufted and densely cespitose with several shoots arising from erect suberect tip of each branch of rhizome, erect to ascending, with terminal inflorescence 10–40 cm tall; shoots with several basal leaves having aboveground green blade, and to 2 cauline leaves, foliage glabrous; rhizomes shallow, terminal branches \pm vertical, to 1.5 mm diameter, white aging dark brown, internodes short, solid, scale erect and appressed, to 9 mm long, veins aging brown, ca. 13-veined with veins converging at tip and having a pair of membranous shoulders near top; adventitious roots appearing nodal, descending. **Stem (culm):** ca. 9-ridged, not obviously 3-sided, ca. 0.5 mm diameter, tough, at stem base pale green (concealed by leaf sheaths) to green above sheath of the uppermost cauline leaf, faces with raised veins, glabrous; internodes solid just above basal leaves and narrowly hollow above. **Leaves:** of aerial stem alternate tristichous, simple with sheath; sheath closed, to 80 mm long, smooth, membranous wavy-truncate at top, of the lowest basal leaves splitting; blade linear, aboveground, in range $< 10\text{--}140 \times 1\text{--}1.8$ mm, green, folded upward base-to-tip, entire to minutely serrate (somewhat scabrous, siliceous) on colorless margins, long-tapered to acuminate tip, parallel-veined folded upward from midrib, upper surface lacking hairs, lower surface approaching tip having sparse, appressed, rodlike white hairs < 0.1 mm long. **Inflorescence:** spikelets in headlike, solitary, terminal panicle defined by an involucrelike set of 1–2(–3) spreading bracts with or without a white spot at the base (scarcely starlike in center), panicle of to 7 helically alternate, sessile spikelets (reduced branchlet), panicle broadly ovoid to hemispheroid, to 7.5×12 mm, with the longest spikelet in center, spikelets radiating, spikelet angular lanceoloid, to 7.5×2 mm, white with overlapped, helically arranged bractlets (floral scales), bractlets to 15, flowers present except at the lowermost bractlets, glabrous; peduncle = stem, at top forming a sessile or subsessile bract at each node of inflorescence, at the lowest nodes blades of bracts spreading and ascending leaflike, to 40×1.8 mm, bracts at the lowest 1–3 nodes $>$ panicle, entirely green (summer) or with white spot at base (spring), flat to somewhat folded upward, entire, long-tapered to tip, decreasing upward from the longest bractlet, at most nodes bractlet triangular folded from midvein (keeled), $2\text{--}2.2 \times 2$ mm, white, 1-veined; branchlet at the first node diminutive, increasing upward in size of spikelets and then fertile; prophyll subtending branchlet hidden on inner side, flat, notched and 2-toothed, to 1.7×1.2 mm, colorless, 2-veined; branchlet of spikelets bracketed by a pair of bracts appressed on outer edges, glumelike bracts keeled and boat-shaped, ca. 2.5 mm long, white. **Spikelet:** bractlets keeled and boat-shaped, the lowest (sterile) triangular (flattened), $2\text{--}2.2$ mm long, of fertile flowers 2.6–3.1 mm long, white, of fertile flowers with membranous margins, the uppermost flower of a spikelet usually functionally staminate. **Flower:** bisexual, sometimes with exserted anthers from bractlet; **sepals** absent; **petals** (bristles) absent; **stamens** 3, free; filaments in bud somewhat half club-shaped with flat face toward ovary, at anthesis elongating to 2–2.3 mm long and exserted from 1 side of bractlet above midpoint, of terminal flower of spikelet ca. 3 mm long and exserted from tip of bractlet, translucent drying reddish, having a conspicuous constriction approaching anther and

above constriction translucent papillate tissue; anthers basifixed, dithecal, fully exerted, slender, 1.2–1.4 mm long, pale yellow, longitudinally dehiscent; pollen pale yellow; **pistil** 1, on short stout stalk; ovary superior, \pm 2-sided compressed front-to-back, narrowly bottle-shaped with slight constriction above midpoint (stylar tissue = future tubercle), 0.5×0.3 mm (bisexual flower) or more slender (staminate flower), light green, 1-chambered with 1 ovule (bisexual flower); style ca. 1.5 mm long, translucent, 2-branched near or below midpoint, pale green at base to colorless above midpoint, the stigmatic branches exerted and ascending from side of bractlet. **Fruit:** achene, on short, broad stalk and with a cap of tissue at top (tubercle), dispersal unit obovoid compressed slightly front-to-back, in range $0.8\text{--}1 \times 0.6$ mm + persistent style, seed chamber plump lens-shaped biconvex, in range ca. 0.5 mm diameter, reddish to brown, faces with low, transverse, wavy, papillate ridges, the tubercle narrowly crescent-shaped or drying with short peak, 0.5–0.6 mm long, grayish.

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