

Vascular Plants of Williamson County

Stenotaphrum secundatum – ST. AUGUSTINE GRASS, CARPETGRASS [Poaceae]

Stenotaphrum secundatum (Walter) Kuntze, ST. AUGUSTINE GRASS, CARPETGRASS.

Perennial herb, clonal, stolon-bearing, fibrous-rooted at every stolon node touching substrate, mat-forming (turf), tufted at each stolon node with 1–several shoots at rooted node, clone spreading via long, initially unbranched stolons to 100 cm long, decumbent and prostrate, in range < 10 cm tall (intact cultivated plants to 20 cm tall); andromonoecious, in the wild only vegetative (lacking inflorescences); shoots in the wild with only basal leaves on tufts at nodes and having principal cauline leaves along stolons, in cultivation reproductive shoot with 3 cauline leaves, foliage strongly compressed side-to-side, having a conspicuous prophyll + basal leaves on each foliage shoot; adventitious roots nodal. **Stems** (stolons): cylindric, to 3 mm diameter (internodes) or to 2× (node), extremely tough, smooth, glabrous; internodes solid; of reproductive shoots stem slender and hidden by sheath. **Leaves:** alternate distichous, simple with sheath; prophyll conspicuously 2-keeled, to 12 mm long, acute at tip, glabrous, persistent (straw-colored); sheath open, folded (a series closely overlapping), in range to 60 mm long, green or whitish with membranous margins, short-ciliate on margins approaching top, at top lacking lobes (auricles) but having a tuft of pilose hairs at the level of ligule; ligule truncate, membranous-ciliate, in range ca. 0.25 mm long; collar narrowed so appearing like a petiolar, to 1.5 mm long, white, glabrous; blade strongly folded upward with halves closely appressed (in cultivation, flat where adequately watered), when flattened linear-triangular, 25–50(–100+) × 4–8(–10) mm (in cultivation to 190 × 11.5 mm), the widest and rounded at base, entire and not wavy having minute teeth on margins especially approaching tip, rounded at tip (appearing blunt when folded), parallel-veined with midrib sunken on upper surface and raised on lower surface, surfaces smooth or nearly so, upper surface (concealed) somewhat glaucous, lower surface bright green and satiny, glabrous.

Inflorescence: not observed in wild population; spikelets, in terminal, 1-sided, spikelike panicle, panicle suberect to ascending, 40–100 mm long, having 2 alternating rows of short, lateral branches recessed in pockets along 1 surface of the panicle axis (not embedded), nodes to 16 on panicle, each branch in range with 1–3 spikelets, spikelet 2-flowered, lower floret staminate (sterile) and upper floret bisexual, bracteate, nearly glabrous, lacking awns; peduncle and lower panicle concealed by folded sheath of flag leaf; lateral branch with a solitary sessile (subsessile) spikelet or also with 1–2 spikelets on a fleshy, hemicylindric stalk, the stalk to 7 mm long (1-spikelet branchlet) or sinusoidal and becoming winglike (3-spikelet branchlet), green and short-ciliate along 2 edges, spikelets on stalk subtended by green, triangular, bractlike extension of stalk to 3.5 mm long whitish at tip; back surface of panicle axis (lacking spikelets) ribbonlike and wavy, 3.5–5.5 mm wide, green, having many closely spaced, sinusoidal fine veins. **Spikelet:** appressed within pocket, narrowly ovoid, 3.8–4.6 × 1.3–1.6 mm, when fertile breaking below glumes; **glumes** 2, strongly dimorphic, lower glume membranous, somewhat rounded but subtruncate to irregular at top, in range (1.2–)1.6–2 mm long, with 0–5 fine green veins not reaching or converging at tip, short-ciliate on margins; upper glume membranous, broadly boat-shaped, 3.5–4.2 mm long, finely 7-veined with veins converging at tip, glabrous; **lemma** boat-shaped ovate, < upper glume, 9(11)-veined, thickish below midpoint, of upper floret veins less conspicuous; **palea** 2-folded and 2-

keeled, membranous, ca. 3 mm long, tough below midpoint aging harder, membranous margins strongly overlapping, glossy and flat on back, keels lacking teeth or hairs, veins colorless (lower floret) or green (upper floret). **Flower:** **perianth (lodicules)** 2, somewhat shield-shaped and 3-sided, ca. 0.5×0.35 mm, translucent, not bulbous at base, convex to truncate at top, of staminate flowers exerted from base of palea; **stamens** 3, free, often unequal within each flower; filaments ca. 1 mm long, colorless; anthers partially exerted at top of spikelet (staminate flower) or fully exerted near base of lemma, dorsifixed, dithecal, 1.4–2.5 mm long, light yellow, longitudinally dehiscent; pollen absent or light yellow; **pistil** (upper floret) 1, 3–3.5 mm long; ovary superior, broadly ellipsoid, ca. 0.6×0.4 mm, glossy translucent, glabrous, 1-chambered with 1 ovule; styles 2, spaced at base, colorless, lower portion ca. 1 mm long, upper portion mostly exerted at top of spikelet, bottlebrushlike, 1.5–2.5 mm long, conspicuously papillate-hairy. **Fruit:** achene (caryopsis) not observed.

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