

Vascular Plants of Williamson County

Urochloa platyphylla – BROADLEAF SIGNALGRASS [Poaceae]

Urochloa platyphylla (Munro ex C. Wright) R. D. Webst., BROADLEAF SIGNALGRASS.

Annual, limited-clonal, fibrous-rooted, many-stemmed at base, spreading and decumbent, to 25 cm tall; shoots basal leaves and cauline leaves, glabrate some fine short hairs on edges and ridges; adventitious roots at nodes of creeping stems. **Stems (culms):** cylindric, to 2.5 mm diameter, D-shaped at base of lateral branch (superficially appearing flattened with sheath enveloping both branches), often purplish red, internodes increasing from base to tip, slightly bent at nodes. **Leaves:** alternate distichous, simple with sheath; prophyll sunken into adjacent sheath, strongly 2-keeled, to 55 × 3 mm, colorless, deeply channeled, keels sparsely short-ciliate and purple-red approaching tip; sheath open, low-ridged, commonly > internode, without lobes (auricles) at top, sparsely short-pilose; ligule ciliate with narrow membranous base, 0.5–1 mm long; collar white + often red-purple; blade lanceolate, in range to 80 × 9 mm, the widest near subcordate base (not clasping), minutely toothed with purple margins at base ciliate with enlarged-based hairs (pustulate), acute at tip, parallel-veined with veins raised on upper surface, surfaces glabrous. **Inflorescence:** spikelets, in terminal panicle with 2–5 ascending, alternate distichous branches (terminal flowering axis + 1–4 lateral branches), the lowest branch often concealed by sheath of flag leaf and other branches fully exposed, the branches 25–50 mm long, 1-sided with to 25 spikelets in 2 rows and spikelets stalked on lower side, axis wings appressed over spikelets, spikelet having 2 florets but only upper one fertile, bracteate; principal axis with short-hairy, purple-red nodes and glabrous internodes, with pulvinus in axil of each lateral branch, the pulvinus bulbous, yellowish green, ± short-hairy; branch axis flattened and wavy; stalks at each node unequal, < spikelet. **Spikelet:** hemi-ovate in outline, breaking below glumes; **glumes** 2, dimorphic, short-hairy, lower glume appressed, rounded and semi-encircling, ± 1.5 mm long, 5-veined or 7-veined with the central 3 veins convergent at tip, slightly raised and green; upper glume ovate, ± 3.5 × 1.5–1.7 mm, membranous, 7-veined but flat surface appearing pinnately veined (from midvein) and principal veins not convergent at tip, margins inrolled, midvein with 10+ hirsute hairs; **lemma** of lower floret similar to upper glume but 5-veined, ca. 3.5 mm long, green; of fertile upper floret ± elliptic, 2.2–2.4 mm long, < lower palea, greenish, evenly 5-veined, bumpy (rugulose and verrucose), glabrous, outer surface whitish and inner surface greenish, with colorless margins wrapped around palea and fruit, becoming very hard; **palea** of lower floret ovate in outline 2-veined and strongly 2-folded, ± 3 × 1.4 mm, palea of upper floret faintly 2–2.2 mm long, 2-veined with inrolled margins from veins, textured. **Flower:** bisexual; **perianth (lodicules)** 2, broadly fan-shaped folded, ca. 0.4 mm long, translucent; **stamens** 3, free; filaments ca. 1.5 mm long, white; anther versatile, dithecal, ± 0.6 mm long, cream-colored or blushed purplish, arrow-shaped at base, longitudinally dehiscent; pollen whitish; **pistil** 1; ovary superior, ovoid to subspheroid, ca. 0.5 mm long, semi-translucent, 2-forked at top, 1-chambered with 1 ovule; styles 2, ± 1.4 mm long, threadlike to midpoint and feathery (plumose) stigmatic above midpoint to red-purple at tip. **Fruit:** achene (caryopsis), enclosed within spikelet bracts, ellipsoid compressed slightly top-to-bottom, 1.6–2.2 mm long, creamy white to pale grayish green, opaque; upper glume short-pilose, lemma and palea brown.

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