

Vascular Plants of Williamson County
Poa arachnifera – TEXAS BLUEGRASS [Poaceae]

Poa arachnifera Torrey, TEXAS BLUEGRASS. Perennial herb, often clonal (appearing to be independent because ramets become detached), slender-rhizomed, fibrous-rooted, ± cespitose and several-stemmed at base of each clump, erect to ascending, in range 35–85 cm tall; dioecious and local clones thereby unisexual; shoots glabrous; rhizome horizontal, ca. 2 cm belowground, short to 80 mm long, 0.7–1 mm diameter, internodes to 15 mm long, with membranous leaf with closed sheath and colorless blade to 8 mm long; adventitious roots at basal nodes. **Stems (culms):** compressed, < 1.5 mm diameter, elliptic in ×-section; internodes hollow. **Leaves:** alternate distichous, simple with well-developed sheath; sheath of foliage leaves closed at least to 1/6 (difficult to diagnose because closed membranous portion tucked inward), compressed like stem, to 180 mm long, somewhat keeled, without lobes (auricles) at top; collar white; ligule membranous, obtuse to truncate, 0.5–2 mm long, milky translucent, continuous with sheath margins, smooth, glabrous; blade linear, in range 150+–380 × (< 1–)2–3(–3.5) mm, > sheath, the widest several mm from sheath and having uniform width (parallel margins) nearly to tip, keeled and folded upward (never flat), minutely scabrous on margins base-to-tip, prow-shaped at tip, parallel-veined with midrib of 2 major veins and central sunken tissue, upper surface dull and minutely puberulent, lower surface glossy and essentially glabrous with scabrous teeth along keel approaching tip, minutely striped green and whitish. **Inflorescence:** spikelets, in terminal, often dense, paniclelike arrays, arrays 90+ mm long, ± cylindrical and dense in flower 20–25 mm diameter (staminate) with ascending to suberect branches to ovoid somewhat open 50–70 mm diameter with spreading branches (pistillate), of pistillate inflorescence 70–145 × 28–65 mm, with 2(3) lateral branches at lower nodes gradually reduced to 1 branchlet or spikelet at tip, with crowded to loosely arranged spikelets, spikelet stalked to sessile, with 2–6 florets, lacking awns; peduncle 43–200 mm long; rachis initially compressed aging cylindrical, glabrous; branches ascending to spreading, to 60 mm long, decreasing upward, with yellowish pulvinus at base, smooth and glabrous (sparsely scabrous); stalks 0.2–5 mm long, with conspicuous swelling beneath spikelet. **Spikelet:** initially lanceoloid compressed side-to-side, 3–5 mm long, at pollination with widely spreading florets spikelet ovate to somewhat rectangular in outline, lower florets and generally intermediate florets bisexual, other florets pistillate to vestigial, breaking above glumes and between florets; rachilla cylindrical, 0.8–1.1 mm long to 0.2–0.8 mm long for terminal rachilla extending beyond upper floret, whitish, glabrous, smooth; glumes unequal, lower glume broadly lanceolate, 1.4–2 mm long and acute at tip, upper glume ovate to obovate, 2–2.5 mm long and rounded at tip, lower glume < upper glume and < lower lemma, green + membranous on margins and at tip, keeled to weakly keeled minutely scabrous above midpoint, lower glume 1-veined or weakly 3-veined, upper glume 3-veined, the veins not converging at tip; **lemma** lanceolate, 2.5–3.2 mm long (lowest floret) decreasing to 2–2.5 mm long (upper floret), distinctly keeled, membranous and entire on margins, 5-veined, obtuse or notched at tip, sometimes tinged red-purple in membranous tissue, short-villous woolly on veins and typically glabrous between veins; **palea** membranous, 0.1–0.5 mm < lemma, 2-keeled and 2-veined, veins green, keels densely short-villous, sometimes with hairs between veins at palea base. **Staminate flower: perianth (lodicules)** 2, teardrop-shaped and bulbous to above midpoint, ca. 0.7

mm long, colorless; **stamens** 3, free; filaments threadlike, ca. 3 mm long, white; anthers basifixed, dithecal, 2–2.7 mm long, pale yellow, longitudinally dehiscent; pollen whitish; **pistil** absent. **Pistillate flower:** **perianth (lodicules)** 2, teardrop-shaped and bulbous to above midpoint, ca. 0.7 mm long, colorless; **stamens** absent; **pistil** 1; ovary ellipsoid to slightly oblanceoloid, ca. 1.3 × 0.5 mm, light green below midpoint and white above midpoint; styles 2, exerted sideways from midpoint of lemma, 2–3 mm long, colorless, bent outward shortly above ovary, with coarse, bottlebrushlike with spreading stigmatic branches to 0.7 mm long. **Fruit:** achene (caryopsis), obovoid, to 2 mm long, enclosed in lemma and palea.

A. C. Gibson