

**Vascular Plants of Williamson County**  
***Andropogon glomeratus* – BUSHY BLUESTEM [Poaceae]**

***Andropogon glomeratus*** (Walter) Britt., Stearns & Poggenh. (if recognized, var. *pumilus* (Vasey) L. H. Dewey), BUSHY BLUESTEM. Perennial herb, not rhizomatous, fibrous-rooted, many-stemmed at base, cespitose with erect to suberect, closely arranged principal shoots (fasciclelike), in range 120–170 cm tall; shoots with many basal leaves and several cauline leaves + leaflike bracts in inflorescence, the earliest basal leaves lacking blade and = a short, ovate sheath; adventitious roots only belowground. **Stems:** elliptic in  $\times$ -section some internodes concave on 1 side, to 7 mm diameter, smooth, glabrous; internodes solid. **Leaves:** alternate distichous, simple with sheath; prophyll on vegetative shoot triangular, ca. 5  $\times$  2 mm, soon aging papery brown, 6-veined with veins near margins and strongly folded along 2 veins, long-ciliate on keels with hairs to 4 mm long; sheath of principal basal leaves strongly keeled, to 300 mm long, whitish at base to greenish at top, of upper leaves green and low-ridged, long-ciliate on margin approaching top, the hairs pilose with swollen bases (pustulate), without lobes (auricles) at top; ligule  $\pm$  subtruncate, membranous and conspicuously ciliate, in range to 2.5 mm long with hairs to 1.6 mm long; collar poorly defined; blade unequally strongly folded except flat approaching tip, linear, basal leaves to 90+  $\times$  8–9.5 mm, minutely toothed on margin base to tip and at and near base long-ciliate with pustulate pilose hairs, long-tapered at tip, parallel-veined with veins raised on upper surface and narrower and less raised on lower surface, surfaces with upper-pointing short hairs along veins, upper surface scabrous, lower surface not noticeably scabrous; sheaths and blades of upper plant shorter, at the upper nodes cauline leaf = bract subtending axillary branches of inflorescence. **Inflorescence:** spikelets, in dense clusters of the canopy, spikelets on fine branchlets (rames), each inflorescence unit mostly = 2 rames, a principal shoot with to several–600+ inflorescence units, on rame sessile fertile spikelet paired with stalk (“pedicel”) typically lacking a spikelet at tip, sessile spikelet having 2 florets, the lower floret vestigial (sterile; “pedicellate spikelet”), the upper floret bisexual, bracteate, especially exposed axes conspicuously pubescent with pilose hairs; principal axes concealed by sheath of green, leaflike bract, glabrous, having membranous bract sheaths subtending inflorescence branches and branchlets, the sheaths mostly folded and some prophyll-like and 2-keeled and 2-folded, in range most 20–40 mm long, with green veins, the axes to 60 mm long; inflorescence unit rames paired, diverging from below central sessile spikelet, rames usually unequal with 1 rame having to 8 spikelets and the other rame having to 5 spikelets, rame axis aging zigzagged (sinusoidal) with internodes 1–2.5 mm long (< fertile spikelet), the ascending “pedicel” to 5.5 mm long (> fertile spikelet) with a green axis aging straw-colored, the uppermost fertile spikelet with 2 “pedicels,” all rame axes with many pilose hairs appressed at anthesis eventually spreading 3–8 mm long, callus at base of fertile spikelet with shorter hairs 1–3 mm long, rame breaking below each fertile spikelet = rame unit (fertile spikelet + “pedicel” + rame axis internode), the axes alternate distichous. **Fertile spikelet:** narrowly lanceolate in outline and 3-sided, in range mostly 3–4.5  $\times$  0.5 mm, long-awned; **glumes** 2, dimorphic, concealing florets, lower glume membranous, lanceolate 2-keeled and 2-folded, = spikelet, keels green and short-ciliate (scabrous) with ascending hairs, upper glume membranous, 1-keeled and 1-veined, with green midvein short-ciliate (scabrous); **upper floret lemma** membranous, < glumes and lacking green veins, the awn terminal, in range mostly 10–16

mm long; **upper floret palea** similar to lemma, lemma and palea not spreading at anthesis. **Flower:** bisexual; **perianth (lodicules)**, wedge-shaped, ca. 0.35 mm long, translucent, not swollen (bracts not spreading); **stamen** 1, free, exerted from tip of spikelet; filament threadlike, ca. 3.5 mm long, white; anther ca. 0.7 mm long, pale yellow-green, longitudinally dehiscent; pollen colorless; **pistil** 1, 1.6–1.9 mm long; ovary superior, narrowly ovoid, ca. 0.4 mm long, pale green to translucent, glabrous, 1-chambered with 1 ovule; styles 2, ± fused at base, colorless, from below midpoint with bottlebrushlike stigma, stigmas exerted and spreading from spikelet at about midpoint. **Fruit:** achene (caryopsis), tightly enclosed in long-awned, sessile fertile spikelet and dispersed in rame unit with pedicel and rame internodes having widely spreading pilose hairs; achene narrowly lanceoloid flattened on 1 side, 1.5–2 × 0.35–0.4 mm, cloudy brown.

A. C. Gibson