

Vascular Plants of Williamson County

Setaria pumila – PIGEON GRASS, YELLOW FOXTAIL [Poaceae]

Setaria pumila (Poiret) Roemer & Schult., PIGEON GRASS, YELLOW FOXTAIL. Annual, fibrous-rooted, tufted, several-stemmed at base, ascending, in range 30–55 cm tall; shoots typically with cauline leaves and straight stems lacking large, knotlike nodes; adventitious roots at basal nodes. **Stems (culms):** compressed-cylindric, to 1.5 mm diameter, tough, smooth, glabrous; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath open, compressed-keeled, with reddish, wide membranous margins, glabrous, without lobes (auricles) at top; ligule ciliate and densely fringed, \pm 1 mm long; blade linear, 30–155 \times 2.5–4 mm, somewhat constricted at base, thin, folded and keeled to midblade, entire at base to minutely toothed and scabrous above midblade on margins, prowlike at tip, parallel-veined, in range dull, upper surface sparsely long-pilose at base with hairs ca. 5 mm long. **Inflorescence:** spikelets, in terminal spikelike panicles, panicles densely flowered, with conspicuous bristles (= reduced branchlets) $>$ spikelets, panicle cylindric, 15–35 mm long, 3.5–4 mm diameter (excluding bristles) and 5–7 mm diameter (including bristles), spikelet with 2 florets, lower one sterile and vestigial and upper one bisexual, bracteate, lacking awns; principal rachis ridged, pubescent with erect or ascending hairs along ridges; lateral branches alternate, each with 1 spikelet at tip, lacking an axillary pulvinus; stalk of spikelet short or absent, bearing 4–8(–12) bristles in 2 clusters; bristles scabrous with upward-pointing barbs (antrorse), ascending at anthesis and in fruit, wavy or arched, 1.5–6 mm long, yellowish green to straw-colored. **Spikelet:** ellipsoid with 1 flattish side, 2.2–2.5 mm long, glabrous, easily deciduous; breaking below glumes and leaving a whitish disc ca. 0.3 mm across; **glumes** 2, unequal, dimorphic, lower glume sheathing, 1.1–1.3 mm long and 3-veined, obtuse and notched with short point (mucronate) at reddish tip, upper glume 1.5–1.7 mm long and 3–5-veined, $<$ spikelet, rounded at tip, glumes colorless on margins and between green veins, upper glume reddish on margin above midpoint; **lower lemma** (sterile floret) similar to upper glume, with inrolled margins (clasping upper floret), 5-veined, notched with short point at tip; **lower palea** membranous and ovate, = lemma, 2-veined; **upper lemma** (fertile floret) ovate, 1.5–2 mm long, weakly 3-veined, with inrolled margins and clasping upper palea, green with burgundy above midpoint commonly frosty white in midsection, netlike and conspicuously transversely ridged below midpoint (appearing reptilean); **upper palea** 1.4–1.8 mm long, 2-veined, smooth and infolded outside of veins and eventually clasping fruit, bumpy and netlike with transverse ridges between veins. **Flower:** bisexual; **perianth (lodicules)** 2, rectangular or fan-shaped, 0.3–0.5 mm long, at anthesis turgid, colorless, truncate to rounded (retuse) at tip; **stamens** 3, free; filaments threadlike, 1–2 mm long, translucent-white; anthers exserted, dorsifixed-versatile, dithecal, oblong, 0.7–0.8 mm long, brownish, longitudinally dehiscent; pollen orangish; **pistil** 1; ovary superior, flask-shaped, 0.4–0.6 mm long, translucent-white, glabrous, 1-chambered with 1 ovule; styles 2, erect, 1.2–1.7 mm long, translucent-white; stigmas exserted, 1–1.2 mm long, purple, tangled feathery (plumose). **Fruit:** achene (caryopsis), enclosed within spikelet with loose glumes and hidden by lemmas and paleae, mostly abscising from bristles, spikelet 1.6–2 mm long; achene \pm hemi-ovoid with 1 side flattish (plano-convex), 1–1.3 \times 0.7–0.8 mm, pale yellowish green, lacking defined edges, obtuse at tip.

A. C. Gibson & B. A. Prigge