

Vascular Plants of Williamson County

Echinochloa colona – AWNLESS BARNYARD GRASS, JUNGLE RICE, SHAMA MILLET [Poaceae]

Echinochloa colona (L.) Link, AWNLESS BARNYARD GRASS, JUNGLE RICE, SHAMA MILLET.

Annual, fibrous-rooted and forming adventitious roots at lower nodes, several–many-stemmed at base, cespitose, decumbent or spreading to ascending, in range to 50 cm tall; shoots with basal leaves, cauline leaves, and conspicuous prophylls, appearing glabrous.

Stems (culms): compressed-cylindric, to 5 mm diameter, tough, often jointed (geniculate) at lower nodes near soil, internodes to 140 mm long and glabrous, nodes with appressed short hairs; internodes spongy-solid and sometime torn but not hollow, core white.

Leaves: alternate distichous, simple with sheath; prophyll strongly 2-keeled with deep trough between keels, 30–160 mm long, often > internode, open, long-tapered to tip, minutely short-toothed along keels; sheath open, < 50–150 mm long, rounded on back, without lobes (auricles) at top, short-hairy from base to 5 mm; ligule absent; collar white and purplish, with several stiff long hairs having nipplelike base, often with appressed short hairs on outer (lower) surface; blade linear, in range 50–280 × 6–11 mm, the widest near midblade, somewhat folded upward from midrib to midblade and flat above midblade, sparsely minutely toothed on margins, long-tapered at tip, parallel-veined with broad midrib defined and somewhat raised on lower surface, surfaces glabrous or with inconspicuous, sparse, short-pilose hairs, lower surface with minute teeth along midrib.

Inflorescence: spikelets, in terminal panicle, flag leaf blade = inflorescence (including exposed peduncle) and partially concealed in flower, panicle 100–160 mm long, of 7–15 ascending, spikelike primary branches, branches ascending to widely spreading, < 5–40 × 2–4 mm and lacking branchlets, spikelets in subsessile clusters in 4 or 6 rows restricted to outer faces of primary branches, spikelet having 2 florets with a sterile lower floret and fertile upper floret, bracteate, lacking awns; main axis ridged, lower internodes often glabrous but with short and a tuft of long hairs at junction with each primary branch, the hairs 2–4.5 mm long, nipplelike at base, and colorless; primary branches typically 3-ridged or even winglike, in range mostly 10–35 mm long, weakly wavy, minutely scabrous along edges and short-hairy; spikelet stalk 0.2–0.5 mm long, with a ring of exlarged cells at place where spikelike abscises. **Spikelet:** ± obovoid, in range 2–2.5 × 1.2–1.3 mm, breaking below glumes; **glumes** 2, unequal and dimorphic, greenish or red-purple; lower glume sheathing spikelet base, ovate, ± 1 mm long, acute with short point at tip, 3-veined and colorless with green lateral veins directed upward to margins or arching toward midvein below tip but at least 1 not reaching midvein, short-hairy on back, short-ciliate on margin; upper glume broadly boatlike and obovate, 2–2.4 mm long; lower glume < upper glume, inrolled on margins, short-pointed at tip, typically 7-veined but 5-veined base-to-tip and with extra veins from a forking of the lateral veins closest to midvein, puberulent between veins, short-bristly along veins; **lemma** of lower floret lacking awns, elliptic, ca. 2 mm long, acute at tip, greenish with raised veins on back, 7-veined but 5-veined base-to-tip and with extra veins from a forking of lateral veins closest to midvein, short-ciliate on margins above midpoint, puberulent between veins, short-bristly along veins, inrolled on margins, lacking awn; **palea** oblong rounded at tip with margins folded inward to about midpoint, 2 × 0.8 mm, membranous, 2-veined, veins colorless; **lemma** of upper floret boatlike and strongly cupped, ca. 1.6–1.9 mm long, faintly 5-veined, acute at tip, mostly glabrous but minutely hairy at papery tip, with margins clasping palea, at anthesis pale green and ±

leathery becoming whitish and hard in fruit; **palea** ovate, < lemma, flat with inrolled margins, at anthesis pale green and ± leathery becoming whitish and hard in fruit, with 2 lateral veins where margins inrolled (not keeled), glabrous. **Flower** (upper floret): bisexual; **perianth (lodicules)** 2, at anthesis fleshy and broadly fan-shaped, 0.3–0.4 mm long, length < width, translucent-colorless; **stamens** 3, free; filaments threadlike, ca. 1.5 mm long, white; anthers exerted, basifixed, dithecal, 0.6–0.8 mm long, cream-colored to pale yellow, longitudinally dehiscent; pollen whitish; **pistil** 1; ovary superior, ellipsoid, 0.5 × 0.3 mm, glossy translucent-colorless, glabrous, 1-chambered with 1 ovule; styles 2, stigmatic portion exerted above midpoint of lemma, lower portion in fresh condition the pair omega-shaped, each 1.2–1.3 mm long and colorless, upper exerted portion, feathery (plumose) and stigmatic, ca. 0.6 mm long, red-purple. **Fruit:** achene (caryopsis), firmly enclosed by hard, glossy lemma and palea, the unit hemi-ellipsoid, 1.6–1.8 mm long, at maturity pale green with fine veins, concealing white, ellipsoid achene ca. 1.3 mm long.

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