

Vascular Plants of Milam County

Rostraria cristata – MEDITERRANEAN HAIRGRASS, ANNUAL JUNEGRASS, CATTAIL GRASS
[Poaceae]

Rostraria cristata (L.) Trin., MEDITERRANEAN HAIRGRASS, ANNUAL JUNEGRASS, CATTAIL GRASS. Annual, fibrous-rooted, not rosetted, in range several–many-stemmed at base, tufted, principal shoots with ascending primary branches at successive nodes with terminal inflorescence, ± erect, in range to 25 cm tall; shoots with basal leaves withered at flowering and several cauline leaves persistent during fruiting, leaves and spikelets conspicuously hairy; adventitious roots at nodes belowground. **Stems (culms):** cylindric, 1 mm diameter with nodes conspicuously swollen to 2 mm diameter, glabrous; internodes hollow.

Leaves: alternate distichous, simple with sheath; prophyll hidden by sheath, open, fully membranous, not 2-keeled, long-tapered from base to tip, to 25 mm long and > branch internode, 4-veined with principal 2 veins raised below midpoint, splitting downward; sheath open, with raised veins, glabrous or more commonly pilose to short-pilose on back (hairs to 1.4 mm long) and outer margin long-ciliate, lacking lobes (auricles) at top; ligule membranous, 1–2 mm long, jagged on margin (erose) with minute hairs on tips of teeth (minutely ciliate); collar to 1 mm long, often with several pustulate hairs 1 mm long on margins; blade linear to lanceolate-linear, in range to 80 × 1–4 mm, scabrous or with some long hairs on margins acuminate at tip, parallel-veined with scabrous raised veins on lower surface, upper surface pilose and short-pilose. **Inflorescence:** panicle, spikelike and dense (“tightly contracted”), terminal incl. axillary shoots, lanceoloid, (25–)40–65 × (7–)10–14 mm, of 100+ spikelets formed on ascending, short branches and branchlets with short internodes and stalks, spikelet of 3–9 bisexual florets (terminal 1–2 florets often sterile), bracteate, conspicuously hairy especially below midpoint of each spikelet; peduncle ± 0.5 mm diameter, tough, smooth, glabrous, sometimes flag leaf > peduncle and overlapping panicle; primary axis pale green smooth; primary branches 1–several per node, with 2 or more forks and (3–)5–10 crowded spikelets, internodes mostly < 1 mm long and axes 0.1–0.15 mm diameter, scabrous or not. **Spikelet:** broadly ovate to broadly obovate compressed side-to-side, 3–5+ × 3–4 mm (excl. awns), breaking above glumes and between florets; **glumes** 2, unequal and dimorphic, lacking awns, widely spreading at anthesis; lower glume narrowly lanceolate boat-shaped long-tapered to tip, in range 1.8–2.2 mm long, 1-veined, glabrous or with several short-hirsute hairs; upper glume cupped-ovate, in range 2–2.8 mm long, < lemma, 3-veined, short-hirsute on green rounded back, margins membranous; callus glabrescent with several minute hairs; rachilla ca. 0.4 mm long, pubescent with straight short hairs; **lemma** awned or not, folded-ovate weakly keeled, in range (fertile) 2.8–3.4 mm long, lower lemmas > upper glume, 5-veined, with green back and colorless margins, minutely lobed (0.1 mm) at tip with awn arising from sinus (of lower florets) or unlobed without awn or slender point (of upper florets), the awn straight, in range < 5–1.5 mm long, whitish, lemmas of lower florets conspicuously hirsute and short-hirsute with hairs to 0.7 mm long along “keel,” lemmas of upper florets with shorter hairs mostly above midpoint or nearly glabrous, membranous margins wider approaching tip and minutely ciliate; **palea** membranous greenish, 2-lobed with deep sinus, ± 2.5 mm long, < lemma, acuminate lobes > 0.5 mm long, 2-keeled narrowly folded to midpoint along veins, keels puberulent, persistent in fruit. **Flower: perianth (lodicules)**

2, bulbous at base and minutely notched at top, 0.35–0.4 mm long, colorless; **stamens** 3, free, anthers exerted from floret; filaments threadlike, 2–2.5 mm long, colorless; anthers dorsifixed, dithecal, in range 0.35–0.4 mm long, whitish, longitudinally dehiscent; pollen whitish; **pistil** 1, in range 1.5–1.7 mm long; ovary superior, oblong rounded at base and truncate at top, $\pm 0.35 \times 0.10$ mm, glossy translucent, glabrous, 1-chambered with 1 ovule; styles 2, exerted from floret, bases closely spaced on top of ovary, ca. 1.2 mm long, colorless, lower portion smooth, exerted upper portion conspicuously stigmatic. **Fruit:** achene (caryopsis), narrowly lanceoloid, ca. 1.5×0.3 mm, tannish, scar oblique at base.
A. C. Gibson