

Vascular Plants of Williamson County
Bromus secalinus – RYEBROME [Poaceae]

Bromus secalinus L., RYEBROME. Annual, fibrous-rooted, several-stemmed at base, ascending to suberect with spreading branches of inflorescence, in range < 100 cm tall; shoots typically with several basal leaves (including sheath only) and mostly 3 cauline leaves, foliage commonly pilose and short-pilose. **Stems (culms):** cylindrical, in range to 4 mm diameter, internodes striped, smooth, and glabrous, nodes sparsely short-pilose; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath closed, ridged, pilose to short-pilose especially below midpoint, of basal leaves pilose on both surfaces, lacking lobes (auricles) at top; ligule membranous, jagged-obtuse, in range to 2.5 mm long, glabrous; collar ca. 1.5 mm long, whitish; blade linear, in range to 180 × 6.5 mm, the widest approaching midblade, flat, minutely toothed on margins, parallel-veined with veins raised on both surfaces, upper surface pilose and lower surface short-pilose, not glaucous. **Inflorescence:** spikelets, in terminal, panicles often arching (nodding), panicle with widely spaced nodes, in range to 160 mm long, spikelet in range mostly with 5–7 bisexual florets, bracteate, awned; nodes along rachis alternate distichous, at the lowest node with ca. 4 branchlets decreasing upward, branches ascending to spreading, on slender, flexible, wiry axes, the longest branchlet to 60 mm long and branchlets unequal at each node, having to 3 spikelets on the longest branchlets and the shorter branches with only a terminal spikelet, most florets fertile and bisexual but terminal floret potentially sterile (= reduced lemma); flag leaf typically widely separated from inflorescence; callous ± swollen. **Spikelet:** ovate-lanceoloid to ovate in outline when closed compressed side-to-side, in range 13–17 mm long (excluding awns), glabrous, breaking above glumes and between fertile florets; **glumes** 2, unequal, ovate, green with membranous margins, lacking awns, lower glume in range ca. 5 × 1.8 mm and 3-veined or 5-veined, upper glume ca. 6 × 2.2 mm and 7-veined or 9-veined, lower glume < upper glume, glumes to 1/3 spikelet (excluding awns) and < lower lemma, midvein raised base-to-tip and scabrous above midpoint, lateral veins not converging at tip, rounded on base, upper glume minutely ciliate on margins approaching tip; **lemma** awned, body elliptic rounded on back (never keeled), in range 6.5–8.5 × ca. 3.5 mm, green with membranous margins not inrolled, inconspicuously 7-veined (on sterile florets shorter and having fewer veins) with principal veins not raised, minutely ciliate on margins, glabrous on surface minutely textured aging tough (coriaceous) and scabrous on exposed surfaces approaching tip, notched at tip with 2 triangular lobes ± 1 mm long, the awn from notch straight, 4–7.5 mm long; **palea** on only fertile florets, 2-veined, oblong-oblongate, 2-keeled strongly folded flat along keels, ca. 7 × 1.4 mm (folded, 2.1 mm unfolded), ± = lemma, short-notched at tip, membranous with keel veins green and short-ciliate along keels (hairs evenly spaced), glabrous on surfaces. **Flower:** bisexual, fully exposed at anthesis; **perianth (lodicules)** 2, acute-ovate, ca. 1 × 0.3 mm, translucent; **stamens** 3, free; filaments threadlike, 1.3 mm long, translucent; anthers basifixed, dithecal, ca. 1.6 mm long, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1; ovary superior, top-shaped, ca. 1 × 0.5–0.6 mm, lower portion top-shaped and 0.7 mm long, off-white, often with dimple, upper portion a flap densely hairy with hairs to 1 mm long, 1-chambered with 1 ovule; styles 2, arising subterminal separately on lemma side from 0.5 mm from top of ovary (subapical), ca. 1.5 mm long,

colorless, with numerous branchlets (plumose). **Fruit:** achene (caryopsis), dispersed as floret tightly enclosed within adherent palea and awned lemma + a rachilla segment, awned dispersal unit commonly 13–15 mm long wrapped around achene; achene ellipsoid compressed front-to-back, ca. 6.5×1.7 – 2×1 mm, = adherent palea, light brown, flat on palea side, with whitish flap to 1.2 mm long and tuft of short hairs on tip; lemma inrolled; rachilla segment appressed, flattened front-to-back, to 1.8 mm long; anthers not retained within floret; the uppermost fertile floret retaining rachilla and sterile floret.

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