

## Vascular Plants of Williamson County

*Hordeum murinum* subsp. *leporinum* – HARE BARLEY [Poaceae]

*Hordeum murinum* L., subsp. *leporinum* (Link) Arcang., HARE BARLEY. Annual, fibrous-rooted, 1–several-stemmed at base, ascending, in range to 50 cm tall; shoots with several basal leaves withered at flowering and to 4 cauline leaves all having green blades at flowering, stems somewhat bent (geniculate), not glaucous, pilose and short-pilose (blades only). **Stems (culms):** cylindric, in range to 2 mm basal diameter, striped green and with light green nodes, smooth and glabrous; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath open, typically < internodes, whitish on narrow margins aging papery, principal veins somewhat raised, with lobes (auricles) at top, auricles narrowly triangular (absent), arching, 1–3 mm long, whitish to light tan; ligule membranous, jagged truncate, 1.2–2.3 mm long; blade narrowly triangular to linear, 40–300 × 4.5–7 mm, entire but minutely toothed approaching tip, parallel-veined, all leaves pilose to short-pilose on both surfaces. **Inflorescence:** spikelets, in terminal, dense “spike,” spike cylindric, 30–80 × 12–20 mm (including awns), with 26–29 nodes, spikelets in alternate distichous appressed clusters of 3, with spikelets in 6 vertical rows (6-ranked), long-awned, spikelet with 1 floret, bracteate, awned; peduncle glabrous, not scabrous, terminated by conspicuous rim; rachis strongly flattened (slightly concave), edges and inner face just above node densely ascending-pubescent along edges, glabrous and glossy on outer faces and beneath fruits; rachilla extension attached to palea, weak axis, to 4 mm long, colorless, sometimes with several hairs at tip; fragmenting above each node at maturity. **Spikelet:** central spikelet distinct from lateral spikelets but with awns equal in length, to 50 mm long (including awns), stalk of central spikelet in range 0.6–0.9 mm long, stalk of lateral spikelets to 1.4 mm long, on inner side, at base of cluster reddish at node, breaking above glumes; **glumes** 2, on central spikelet both formed on outer (lemma) side of spikelet so not clearly paired with spikelet, 1-veined, long-awned, subequal, linear, in range to 31 mm long, basal portion ca. 10 mm long, green between pale greenish yellow midvein and pale greenish yellow marginal vein, conspicuously long-ciliate; of lateral spikelets dimorphic, glumes resembling central glumes (ciliate) or an outer (upper) glume awnlike and not expanded and ciliate at base, the awns straight, minutely scabrous; **lemma** of central spikelet long-awned, lanceolate, to 50 mm long (including awn), body ca. 9–10 mm long, rounded on back and 5-veined with veins widely spaced, dull green but lighter between veins, inrolled and entire on membranous tissue having glandular hairs; of lateral spikelets narrowly lanceolate, to 50 mm long (including awn), body 2× lemma of central spikelet, pilose-ciliate on margins at base and also having glandular hairs on membranous tissue; **palea** inrolled around flower, later around developing fruit (bisexual florets), lanceolate, 8–9 mm long, with 2 green veins approaching tip, veins much closer to median than margins, not 2-keeled but concave between veins, of bisexual spikelet usually glabrous, of staminate spikelet often with scattered short hairs on outer surface. **Flower:** bisexual (central floret); **perianth (lodicules)** 2, compressed-lanceoloid, 1.2–1.5 × 0.3 mm, fleshy at anthesis, translucent, pilose-ciliate above midpoint; **stamens** 3, free; filaments threadlike, ca. 2.5 mm long, translucent; anthers dorsifixed, dithecal, oblong, ca. 1.2 mm long, pale yellow, longitudinally dehiscent; pollen pale yellow; **pistil** 1; ovary superior, distinctly 2-parted, lower portion obovoid, ca. 0.9 mm long, pale green, upper portion

wider, ca. 1 mm long, translucent and densely pilose, 1-chambered with 1 ovule; styles 2, subterminal, ascending, ca. 1.2 mm long, colorless, stigmas feathery (shaggy-plumose).

**Flower:** staminate or rarely bisexual (lateral spikelet); **perianth (lodicules)** 2, narrowly lanceoloid, ca. 1.5–1.9 mm long, whitish translucent, pilose above midpoint (distal 1/3), whitish translucent; **stamens** 3, free; filaments threadlike, ca 2.5 mm long, translucent; anthers dorsifixed, dithecal, linear, ca. 1.2 mm long, light greenish yellow with dark purple dots becoming purplish on faces, longitudinally dehiscent; pollen light yellow whitish; **pistil** 1, diminutive and sterile, rarely fertile, of fertile pistil ovary superior, 1-chambered, weakly 2-lobed obovoid to oblanceoloid compressed side-to-side, ca. 1 mm long, tapered to base, glabrous to midpoint and pilose above midpoint, 1-chambered with 1 ovule; styles 2, ascending, broadly conic at base, ascending, 0.5–0.7 mm long, colorless, broadly conic at base and above, stigmas feathery (shaggy-plumose) on inner face. **Fruit:** achene (caryopsis), enclosed within straw-colored lemma and palea, compressed-oblanceoloid to oblong, fully developed 5–6 × 1.3 × 0.9 mm, orange-brown, pilose at broad tip.

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