

Bromus L. BROME, CHESS

Bromus hordeaceus L., SOFT BROME, SOFT CHESS. Annual, fibrous-rooted, 1–several-stemmed at base, erect to ascending, in range 10–70 cm tall; shoots commonly with 2–4 cauline leaves, soft-pilose with ascending to spreading hairs. **Stems (culms):** cylindrical, to 1.5 mm diameter, pilose at nodes and portions of lower internodes and glabrous above; internode hollow. **Leaves:** alternate distichous, simple with sheath; sheath closed, 11–65 mm long on cauline leaves and open for 2–15 mm, 7–9-ribbed, narrowly membranous on margins, mostly glabrous on flag leaf, lacking lobes (auricles) at top; ligule translucent-membranous, deeply jagged on rounded-obtuse margin, in range 0.3–1.5 mm long, glabrous or pubescent on hidden surface and pilose on exposed surface; blade linear, 40–135 × 1.5–4.8 mm, the widest near base, flat, minutely toothed on margins base to tip, parallel-veined with 5–7 veins raised on both surfaces and midrib more prominent, upper surface with scattered, long-pilose hairs, lower surface generally glabrous. **Inflorescence:** spikelets in terminal raceme or panicle, ± open to condensed, mostly < 125 mm long, with (1–)3–4 principal and minor branches (spikelet stalks) per node, spikelets to 45, initially erect to ascending terminal on each branchlet, each spikelet with (4–)7–12-flowered, bracteate, pubescent, conspicuously awned; peduncle ± low-ribbed, 30–260 mm long, to 0.5 mm diameter, the basal portion within sheath of flag leaf, glabrous; rachis slender, to 90 mm long, slightly flexuous, mostly glabrous but pubescent above midpoint; bract subtending first node triangular, ca. 0.5 mm long, white tinged purplish; branches to 20 mm long, with ascending to erect stiff hairs; stalk of spikelet 1.5–5.5 mm long, pubescent like branch axes. **Spikelet:** slightly compressed-ovoid to narrowly lanceoloid, 14–20 × 3.5–6.2 mm (excluding awns), pilose to long-pubescent, breaking above glumes and between most florets; rachilla conspicuous at anthesis appearing zigzagged, segments flattened, whitish; **glumes** 2, unequal, lanceolate to ovate, lower glume 6.5–7 × 1.3–1.5 mm and 3–5-veined, upper glume 7–8 × 1.8 mm and 7-veined, mostly acute at tip, weakly keeled, with wide membranous margins, veins not converging at tip, pilose; **lemma** awned, body lanceolate to oblanceolate, 7.5–9.3 × 1.7–2.6 mm and 7-veined, membranous on margins, notched to 2-toothed at tip, veins raised and not converging at tip, ascending-pilose on exposed outer surface, the awn 0.5–1.2 mm below tip, straight or with 1/2 twist and slightly flexuous at base, 4.5–7.2 mm long; palea narrowly elliptic, 5.5–6.8 mm long, 2-veined strongly folded along veins enclosing ovary, transparent-membranous with green along veins, short-ciliate along veins. **Flower:** bisexual (terminal floret sterile or immature); **perianth (lodicules)** 2 acuminate-lanceolate, 0.5–0.6 × 0.15–0.2 mm, translucent, persistent during fruit development; **stamens** 3, free, included; filaments slender, 1.5–2 mm, translucent-white; anthers basifixed, dithecal, 0.6–1.1(–1.7) mm long, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1; ovary superior, narrowly oblanceoloid compressed front-to-back, ca. 3.3 mm long, light green, with an erect obtuse flap, 1-chambered with 1 ovule; styles 2, arising at base of flap, widely spreading to slightly recurved, 1–1.3 mm long, with long stigmatic hairs nearly base to tip becoming entangled. **Fruit:** achene (caryopsis), dispersed as entire spikelet or as floret tightly enclosed within adherent palea and awned lemma + a rachilla segment; achene ellipsoid to oblong, 5–6 × ca. 1.6 mm, brownish, flat and grooved base on palea side (ventral face) and convex (dorsal face); rachilla segment < 1 mm long with constriction

beneath conspicuous callus, whitish, densely short-pilose; style persistent in tangled mass with flap at tip of fruit. Early April–late May.

Naturalized. Annual weedy and commonplace throughout the range, often occurring in relatively dense populations at disturbed sunny locations, roadsides, and parking lots but also now firmly established in most grassland situations as well as on burns. *Bromus hordaceus*, formerly known as *B. mollis*, is called soft chess because the inflorescence is conspicuously pilose. This species begins flowering a couple months after the other common, introduced annual bromes (*B. diandrus* and *B. madritensis* var. *rubens*) and yet appears to have a relatively short bloom period.

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