

Bromus madritensis L. subsp. *rubens* (L.) Husn., RED BROME. Annual, fibrous-rooted, 1–several-stemmed at base, erect to ascending, in range 10–50 cm tall; shoots and inflorescence mostly soft pubescent and sparsely pilose. **Stems (culms):** cylindric, to 3 mm diameter, pubescent with backward-pointing hairs (retorse) but glabrous at nodes. **Leaves:** alternate distichous, simple with sheath; sheath closed for 30 mm above node to within 13 mm of ligule, ridged with a prominent midvein and smaller lateral veins, narrowly membranous on margins of orifice, finely and slight retrorse-pubescent, without lobes (auricles) at top; ligule membranous, ± deltate, 1–4.5 mm long, jagged-fringed on margin, glabrous; blade linear, 35–150 × 1–5.5 mm, the widest near the base, flat, ciliate-pubescent on margins, parallel-veined with midrib raised on lower surface, finely pubescent, upper surface sparsely pilose at base. **Inflorescence:** spikelets, in terminal panicles, panicle generally exerted from leaf sheath of flag leaf, oblanceoloid to obovoid, 30–95 × 7–30 mm (2× wider when flattened), with 4–6 nodes, in flower dense with erect to ascending lateral branches, becoming wider in fruit, spikelet with 6–8 florets but terminal 1–3 florets sterile, bracteate, awned; rachis 17–33 mm long, finely pubescent; lateral branches 1–5 (–7) per node, 1–5 mm long; stalk of spikelet often stiff, 1–3 mm long, with ascending to spreading hairs. **Spikelet:** slightly compressed, mostly 30–40 mm long (including awns), not ribbed, finely pubescent to nearly glabrous, aging tinged purplish red, breaking above glumes and between florets; **glumes** 2, unequal, lanceolate, lower glume 6–10 mm long and generally 1-veined (sometimes 3-veined at base), upper glume 7.5–12.5 mm and 3-veined with lateral veins converging toward tip but terminating before merging with midvein, weakly keeled, with membranous margins, narrowly acuminate at tip, finely pubescent to glabrous; rachis internodes 2–2.5 mm long; **lemma** awned, lanceolate, 8.5–16 × 1.4–1.8 mm (excluding awn), > glume, ± rounded on back, with membranous margins, 5-veined to midpoint and 3-veined above midpoint, the veins converging but not merging with midvein, finely pubescent with some pilose hairs near tip, tip deeply 2-toothed and completely membranous, the teeth 1.5–3.5 mm long, the awn arising 1.3–4 mm below tip from either back or from between teeth, straight to slightly bent or wavy, (8–)15–20 mm long, aging purplish red; **palea** narrowly elliptic, 10–11.5 × 0.7–1.2 mm, 2-veined, 2-keeled, pilose along each vein above midpoint, glabrous between veins, with margins membranous and folded inward along veins and partially enveloping fruit. **Flower:** bisexual, concealed within floret; **perianth (lodicules)** 2, acuminate-lanceolate, 0.5–0.7 mm long, translucent, at anthesis bulbous at base becoming flat, persistent; **stamens** 2, included; filaments slender, 1.5–2 mm long, white; anthers basifixed, dithecal, 0.3–0.8 mm long, yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1; superior ovary, inversely conic and compressed, 0.4 × 0.4 mm, with a large terminal lobe, with short, ascending hairs, the lobe ± rectangular with 2 teeth at tip, 0.5 × 0.5 mm, fleshy, 1-chambered with 1 ovule; styles 2, ± 1 mm long, appearing lateral from base of terminal lobe, conic at base and threadlike with many wavy lateral branches. **Fruit:** achene (caryopsis), narrowly ellipsoid, 7.5–9.5 × 1–1.3 mm, tannish to brownish, convex facing lemma, concave facing palea, with terminal lobes and styles tardily abscising, slightly ridged on middle of concave face and sometimes on convex face, adherent to lemma and palea, glabrous.

Naturalized. Annual extremely common and abundant throughout the range in habitats as well as in sunny stands of native species in which weedy grasses have invaded, especially near roads and hiking trails. *Bromus madritensis* var. *rubens* is also known in the

literature as *Bromus rubens*. Red brome has a dense cluster of awned spikelets that are initially green but become purplish red during fruit development before the plant eventually dies.

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