

Bromus sterilis L., BARREN BROME, POVERTY BROME. Annual, fibrous-rooted, 1–several-stemmed at base, decumbent to ascending, in range 15–55 cm tall; shoots commonly with 2–4 cauline leaves, leaves puberulent with downward-pointing hairs. **Stems (culms):** cylindrical, mostly < 1 mm diameter but to 1.5 mm diameter and crimson at nodes, bent at some nodes, glabrate but sparsely puberulent approaching node with node glabrous and often rough or wrinkled; internode hollow. **Leaves:** alternate distichous, simple with sheath; sheath closed, 35–85 mm long on cauline leaves and open for 7–15 mm, ridged but midvein only conspicuous approaching blade (above closed sheath), narrowly membranous on margins, without lobes (auricles) at top; collar narrow, whitish, wavy on margin; ligule translucent-membranous, deeply jagged, 1.5–2.5 mm long, glabrous; blade linear, 40–125+ × 2–5.5 mm, the widest near base, flat, minutely toothed on margins base to tip, parallel-veined with veins raised on both surfaces, puberulent. **Inflorescence:** spikelets, in terminal panicles, panicle loose, in range mostly < 125 mm long, at each node with (1–)3–4 principal and minor branches having typical 1 terminal spikelet per branch, initially with ascending spikelets later drooping, in range spikelet in range with 5–7 florets but upper 1–2 florets sterile, bracteate, conspicuously awned; peduncle slender and wiry, ≥ panicle, ca. 0.5 mm diameter, ± low-ridged, smooth, glabrous; bract subtending first node triangular, ca. 0.5 mm long, white tinged purplish; branch axes scabrous with upward-pointing short hairs along edges, rachis flat with white to pinkish stripe on 1 side, stalks of spikelets 4–15 mm long, with poorly developed purple-red pulvinus at base, expanding and somewhat angled approaching spikelet and scabrous along edges. **Spikelet:** slightly compressed, at anthesis to 80 mm long (including awns), low-ribbed; rachilla conspicuous at anthesis appearing zigzagged, segments flatten, 3.5–4.3 mm long, whitish, breaking above glumes and between florets; **glumes** 2, unequal, narrowly lanceolate, strongly keeled, in range lower glume 9–11 mm long and 1-veined, upper glume 14–17 mm and 3-veined, membranous on margins and at tip; **lemma** awned, body narrowly linear-lanceolate deeply 2-toothed, in range 20–22 mm long on fertile floret >> glume, mostly with 7 raised veins, wide-membranous on margins, minutely scabrous along veins, teeth at tip, membranous, narrow, and ca. 2 mm long, each often with a fine green vein, the awn straight, arising 3–4.5 mm from tip, 22–29 mm long, continuous with 3 central veins; **palea** on only fertile florets, membranous, narrowly lanceolate, 11–12.5 mm long (fertile floret), 2-veined, strongly 2-keeled folded flat along keels, depressed between keels, keel veins green and ascending-ciliate but also with minute hairs, lacking hairs between keels but folded margin with minute, appressed, upward-pointing hairs on membranous tissue and minutely toothed. **Flower:** bisexual, concealed within floret; **perianth (lodicules)** 2, acuminate-lanceolate, 0.6–0.7 mm long, translucent, bulbous at base; **stamens** 2, included; filaments very slender, ca. 1.3 mm long, translucent-white; anthers basifixed, dithecal, in range 1 mm long, yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1; ovary superior, oblanceoloid, 1.3–1.4 mm long, translucent-white, with erect, straight hairs above midpoint, with 2 sterile, ± short-hairy flaps extending beyond tip, 1 flap elliptic, the longer flap notched, flaps persistent in fruit, 1-chambered with 1 ovule; styles 2, arising separately from top of ovary; stigma ± 1 mm long, with numerous branchlets, the branchlets, ± 0.3 mm long, simple but twisted, wavy and often intertwined. **Fruit:** achene (caryopsis), dispersed as floret tightly enclosed within adherent palea and awned lemma +

a rachilla segment, awned dispersal unit; achene narrowly ellipsoid compressed top-to-bottom. Late April–late May.

Naturalized. Annual vouchered from one locality one kilometer south of Malibu Creek State Park along a ridgeline. *Bromus sterilis* in fruit most resembles *B. tectorum*, which also has lax spikelets.

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