

Bromus pseudolaevipes Wagon, WOODLAND BROME. Perennial herb, rhizomatous (highly condensed and inconspicuous), fibrous-rooted, several-stemmed at base, with ascending or arching shoots, in range 60–120 cm tall; shoots typically with several basal leaves (including sheath only) and 3–5 cauline leaves, individuals with leaves pilose to essentially glabrous. **Stems (culms):** cylindrical, in range 2.5–4 mm diameter, lower stem smooth and mostly glabrous with downward-pointing to appressed, straight, short and long hairs approaching and at nodes, shallowly ridged on exposed axis with short appressed or ascending hairs in furrows; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath closed, of cauline leaves closed about 90% with throat < 15 mm long, ridged most of length and extremely so when dried, with a raised midvein or somewhat keeled above midpoint, throat neither membranous and nor ciliate, with downward-pointing, stiff, straight hairs on node at base, pilose on certain individuals to glabrescent or glabrous on other individuals, with lobes (auricles) at top (occasional lower leaves) or absent, auricles narrowly tapered and curved mostly curved downward, < 1 mm long; ligule membranous, jagged-truncate, in range 0.8–1.5 mm long, ± bronze, minutely ciliate, aging split, glabrous; collar sometimes purple-red on cauline leaves; blade in range narrowly lanceolate-linear, in range 40–285 × 4.5–15 mm, the widest approaching midblade, flat, minutely toothed on margins, parallel-veined with veins slightly raised on both surfaces and midrib raised on lower surface, pilose on pubescent individuals to glabrous on other individuals, glaucous. **Inflorescence:** spikelets, in terminal, open panicles, panicle with widely spaced nodes, in range to 200 mm long, branching nodes alternate distichous, at each node with 1–4 ascending to spreading branches on slender, flexible stalks, branches to 170 mm long, with (1–)3–8(–15) spikelets, spikelet with (4–)9–10 florets, most florets fertile and bisexual but terminal floret typically sterile (= reduced lemma); sheath of flag leaf < first node; rachis mostly cylindrical but flattish above branches at each node, densely short-hairy with mixed appressed to ascending hairs and scabrous, bract subtending each node ± ringlike, ledgelike, with longer ascending hairs; axes of branches wiry and lax, cylindrical, to first fork to 75 mm long, conspicuously short-hairy, with axillary pulvinus. **Spikelet:** ± narrowly ellipsoid (closed) but at anthesis florets spreading and having exerted anthers and styles, not conspicuously compressed, in range mostly 36–42 mm long (including awns), conspicuously short-hairy, breaking above glumes and between fertile florets; **glumes** 2, unequal, lanceolate and ridged (veins), lower glume in range 4–5.5 mm long and 3-veined, upper glume 6.5–8 mm long mm and 5-veined, lower glume < upper glume, glumes to 1/3 spikelet (including awns) and < lower lemma, lateral veins not converging at tip, green with bronze-colored membranous margins, raised veins scabrous, acute and not awnlike at tip; rachilla pale green, segments 2.5–3 mm long, finely hairy on convex face and glabrous on flat face; **lemma** awned, body lanceolate ± rounded on back (never keeled), in range 9–12.5 mm long on fertile floret, 7-veined (on sterile florets shorter and having fewer veins), with principal veins not raised, tip scarcely lobed next to awn base, green, densely short-villous, narrowly membranous to midpoint; the awn < 0.5 mm from lemma tip, straight, in range 2.5–5 mm long, tan aging red; **palea** on only fertile florets, elliptic, to 1 mm < lemma, 2-veined, 2-keeled but not strongly folded flat along keels, flat between keels, somewhat truncate at tip, mostly membranous with keel veins green and ascending short-ciliate, membranous surface

inconspicuously short-hairy. **Flower:** bisexual, fully exposed at anthesis; **perianth (lodicules)** 2, ovate, $0.7\text{--}0.8 \times 0.3$ mm with bulbous base, opaque at base translucent above midpoint, persistent; **stamens** 3, exerted; filaments threadlike, ca. 3 mm long, translucent-white; anthers basifixed, dithecal, 4–5 mm long, light yellow, longitudinally dehiscent; pollen light yellow to pale yellow; **pistil** 1, at anthesis 2–3 mm long; ovary superior, 3-sided top-shaped, 1–1.2 mm long, colorless, with ascending hairs above midpoint, with 2 sterile, colorless flaps extending beyond tip, 1 flap elliptic, the longer flap notched, flaps persistent and increasing in fruit; styles 2, arising separately from near top of ovary (subapical); 1–2 mm long, colorless to white, with numerous branchlets (plumose), the branchlets 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 commonly 13–15 mm long; achene narrowly ellipsoid compressed front-to-back, $7.5\text{--}8.5 \times 1.2\text{--}1.4 \times 0.3\text{--}0.4$ mm, grayish brown, flat on palea side, with whitish flap to 1.2 mm long and tuft of short hairs on tip; lemma with short hairs along veins and membranous tissues; palea wrapped around achene but not folded from keels; rachilla segment appressed, flattened front-to-back, 2.3–3 mm long; anthers not retained within floret; the uppermost fertile floret retaining rachilla and sterile floret. Late May–late June.

Native. Perennial herb collected at several localities in range, typically on shady slopes next to *Quercus agrifolia* and growing in coastal sage scrub or chaparral associations with *Mimulus aurantiacus*, *Eriophyllum confertiflorum*, *Lupinus longifolius*, and shrubs of *Salvia*. *Bromus pseudolaevipes* in range has blades wider than other species of bromes (wider also than reported in the literature), and individuals may have either pilose leaves or the leaves appear glabrous. The ligule of this species is always less than two millimeters long and commonly colored bronze, and the margins on the glumes and also bronze-colored. When its spikelets are closed, they are narrow with short, straight awns more or less appressed to the next lemma, and they are obviously pubescent, including short hairs and teeth on the glumes. At anthesis, the lemma and palea of each floret are spread by the bulbous lodicules so that this species of brome has anthers and stigmas fully exposed for pollination, whereas rarely does one observe exposed anthers in other local species of *Bromus*. *Bromus pseudolaevipes* is similar to *B. laevipes* in having similar spikelets (including bronze color on glumes), which may be expected in range but should have longer ligules longer than two millimeter and have glabrous and longer glumes.
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