

Lamarckia Moench

Lamarckia aurea (L.) Moench, GOLDENTOP. Annual, fibrous-rooted, several-stemmed at base, cespitose, decumbent to ascending, 7–25(–40) cm tall; shoots with ascending leaves and axis appearing compressed with conspicuously keeled sheaths, glabrous. **Stems (culms):** cylindric, to 1.5 mm diameter, node of flag leaf pulvinuslike and somewhat bent to position inflorescence erect. **Leaves:** alternate distichous, simple with sheath; prophyll to 15 mm long, closed to midpoint, acute at tip, 2-keeled, flat between raised keels, keels green aging tannish and short-ciliate with backward-pointing teeth; sheath closed for ca. 2/3, strongly compressed and keeled, with membranous margins, not ridged, without lobes (auricles) at top; collar whitish; ligule membranous, ± broadly deltate, 2–12 mm long, the longest on flag leaf and continuous with margins, translucent-milky, strongly folded, with jagged margin; blade linear to narrow lanceolate, 25–90 × 5–9 mm, flat but keeled with well-defined midrib, sometimes folded, soft, margin minutely serrate from base to tip or ± entire below midblade, parallel-veined with midrib sunken on upper surface and raised on lower surface. **Inflorescence:** dense panicle of spikelets, terminal, with many, closely arranged lateral branches having spikelets oriented toward 1 side, 20–80 × 15–25 mm, golden yellow to purplish alternate distichous with 1–several branches per node, suberect and ± appressed, branchlets with 1–4 spikelets clustered at ends (fasciculate), spikelets outward-facing to drooping aging deflexed, with the terminal spikelet awned and fertile and others spikelets lacking awns and sterile, bracteate; culm below the lowest node and primary branches with widely spaced, minute, backward-pointing hairs; branchlet axis slender, bending 90° or more; stalk of spikelet short-strigose, with a conspicuous tuft of longer hairs at cluster base, abscising as a unit below tuft of hair. **Sterile spikelet:** 6–10.5(–12) mm long, >> glumes, compressed side-to-side, with 5–9(–13) florets (lemmas) but lacking flowers (rarely with lower floret bisexual and having a minute awn); **glumes** 2, ± equal, narrowly lanceolate and long-tapered, 2.5–3.3 × 0.35–0.5 mm, membranous, green at base and colorless to purplish red above, rounded and short-hairy on back; **lemma** 1.8–2.2 mm × 0.5–0.7 mm, often visible above glumes, rounded on back, 1–3-veined, obtuse and jagged at tip (erose-lacerate); **palea** absent (ca. 2 mm long on fertile floret). **Fertile spikelet:** 2-flowered, sometimes slightly compressed side-to-side, the lower floret bisexual, the upper floret highly reduced and sterile on glabrous rachilla; **glumes** 2, ± equal, narrowly lanceolate and long-tapered, 2.7–4.3 × 0.4–0.6 mm, membranous with 1 green or red vein, rounded and short-strigose on back, sometimes with awn to 0.7 mm long at tip; rachilla with upper internode puberulent; **lemma** 1.6–3.3 mm long (fertile floret) and 0.5–0.7 mm long (sterile floret), weakly 3–5-veined, 1-awned from below notch at tip, the awn straight, 5.1–7(–9) mm long (fertile floret) or to 4.8 mm long (sterile floret); **palea** (fertile floret) 2–3 × 0.65–0.7 mm, 2-keeled, keels greenish, short 2-toothed. **Flower:** **perianth (lodicules)** 2, deltoid-ovoid with lobe, 0.25 mm long, colorless; **stamens** 3, free; filaments < 2 mm long; anthers dorsifixed, dithecal, oblong, ca. 0.7 mm long, light yellow to fleshy yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1, < 2 mm long; ovary superior, glabrous, 1-chambered with 1 ovule; styles 2, 0.6–1.1 mm long, short, with upward-pointing barbs; stigma exerted, erect, colorless, sticky papillate. **Fruit:** achene (caryopsis), adherent to lemma and palea, ellipsoid, ca. 2 × 0.5 mm, brown, glabrous. Late December–mid-April (May).

Naturalized. Annual fairly commonly encountered in disturbed habitats throughout the range and in openings of coastal sage scrub and chaparral. *Lamarckia aurea* is a grass from Europe that often occurs in dense local populations, and it is one of the easiest to recognize at a glance from its distinctive inflorescence with the spikelets oriented and drooping in one direction. In this species, the inflorescence breaks apart at the base of clusters having several spikelets, the terminal one which is fertile and awned and the others that are sterile and awnless. The fertile spikelet has a bisexual lower floret and a highly reduced, sterile upper floret, both having an awn on the lemma.

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