

Schismus arabicus Nees, ARABIAN SCHISMUS. Annual, fibrous-rooted, many-stemmed at base, tightly cespitose, decumbent to ascending, in range 3–12 cm tall; shoots with inflorescence to 200 mm long, fine-leaved, often reddish to purplish red (sheaths, lower surfaces of blades, and spikelets), with some long, straight hairs on collar and upper surface of blade; adventitious roots at basal nodes. **Stems (culms):** cylindric, < 1 mm diameter at nodes, smooth, glabrous; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath open, low-ridged, with a tuft of colorless straight hairs at the whitish collar, the hairs in range ca. 2 mm long, without lobes (auricles) at top; ligule membranous, irregularly cut with ciliate margin, having hairs mostly < 0.5 mm long; blade linear, typically 20–50 × 1.5 mm, the widest at midpoint, flat becoming inrolled when water-stressed, minutely toothed on margins, acuminate and crimson at folded tip (not boat-shaped), parallel-veined with raised veins, minutely scabrous along veins, upper surface sparsely long-hairy to midblade. **Inflorescence:** spikelets, in terminal panicles, panicle 20–30 × 6–14 mm, of several–50+ spikelets, spikelet with (4–)5–7 florets (bisexual or terminal ones diminutive or sterile), bracteate, minutely scabrous, lacking awns; rachis flattened, branches alternate distichous, generally 1 per node, loosely appressed to rachis. **Spikelet:** narrowly lanceoloid compressed slightly side-to-side, in range 5–6.8 mm long, the terminal floret always < both glumes, with minutely scabrous rachilla, breaking above glumes and between florets; **glumes** 2, ± equal, ovate, in range 4–6.3 mm long, often tinged red-purple above midpoint, keeled on lower glume, upper glume rounded on lower back and keeled above, keel minutely scabrous, acuminate at tip, 3–7-veined, with wide membranous margins; **lemma** broadly elliptic-ovate, 1.8–2.6 mm long, sharply 2-lobed at tip, the lobes 0.6–1 mm long, acute to acuminate, always longer than wide, widely membranous on margins and tip, commonly with a short midvein extension in sinus between lobes, mostly 7–9-veined, with conspicuously straight, ascending and appressed long hairs on outer surface; **palea** spatulate to narrowly obovate, 1.5–2.2 mm long, always < lemma (often = base of lemma sinus), colorless, 2-veined, 2-keeled only to midpoint, broadly acute at tip. **Flower:** bisexual; **perianth (lodicules)** 2, ± trapezoidal, ca. 0.2 × 0.2 mm, narrower at base, fleshy at anthesis, colorless, truncate, smooth and without hairs; **stamens** 3, free, included to exserted; filaments 0.5–1 mm long, whitish; anthers dorsifixed, dithecal, 0.3–0.5 mm long, light yellow to beige with reddish purple, longitudinally dehiscent; pollen colorless; **pistil** 1; ovary superior, obovoid, ca. 0.3 × 0.2 mm, glossy colorless to light yellowish green, glabrous, 1-chambered with 1 ovule; styles 2, bases close, ± 1.1 mm long, colorless, stigmatic above midpoint; stigmas exserted laterally from floret, narrowly featherlike (plumose). **Fruit:** achene (caryopsis), obovoid, 0.5–0.8 mm long, glossy and translucent, glabrous; embryo observable within achene. Late January–mid-April.

Naturalized. Annual verified in range during 2010 in the vicinity of Castro Peak (SMM), growing in full sun along a fire road the year after a major burn event, although probably this species has existed unnoticed because it is not easy to identify. *Schismus arabicus* is abundant in the Mojave Desert and, like its common cousin, tends to grow against the ground; this plant often appears reddish due to the presence of pigments, especially in sheaths, lower blade surfaces, and the glumes, whereas young plants of *S. barbatus* tend to be mostly green. The spikelet of *S. arabicus* possesses several distinctive characteristics:

the lower glume overtops the lemma of the uppermost floret, the palea of every floret is always noticeably shorter than the lemma, and the lemma is notched typically deeper than in the other species, 0.6–1 millimeter, so that the two lobes are obvious and either acute or acuminate. Other features can be used to distinguish the two species, but are more difficult to observe and apply, such as hair features of the lemma and upper surface of the blade or shorter leaves, which can only be appreciated when the two species are placed side by side.

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