Asphodelus fistulosus L., ONION-WEED. Perennial herb, geophytic, rhizomatous, fibrousrooted, cespitose, several-many-stemmed at base, with ascending, densely tufted basal leaves, each shoot potentially with an erect, terminal inflorescence, (15–)40–70 cm tall; shoots 10–15+-leaved, sparsely papillate-puberulent; rhizomes vertical. **Stems:** cylindric, < 5 mm diameter, short and concealed by basal leaves. Leaves: helically alternate, simple with sheath; sheath open, membranous, < 15 mm long, with wide wings; blade linear and long-tapered, 120–480 mm long, 2–3 mm wide at midpoint, in ×-section hemi-cylindric to subtriangular at base, approaching tip \pm cylindric but compressed top-to-bottom, with many fine, low ridges, minutely scabrous along larger ridges; in ×-section with huge, water-filled cells in center, appearing hollow or slightly pithy when dried. Inflorescence: panicle of racemes, erect, > leaves, racemes ascending, 200–400 mm long, many-flowered, bracteate; peduncle of panicle \pm cylindric, 200–300+ mm long; < 5 mm diameter, tough, glabrous, glaucous, \pm hollow; bract subtending raceme nearly sheathing lateral branch, appressed, triangular with tail-like tip, 5-10(-15) mm long, scarious with green midstripe; axes glabrous; bractlet subtending pedicel like bract but reduced, persistent; pedicel ascending, 1–2 mm long increasing to 9 mm long in fruit, jointed at receptacle by a ringlike groove (= abscission zone), glaucous. Flower: bisexual, radial, dish-shaped, 15-22 mm across; receptacle \pm 2.5 mm long (appearing like part of pedicel), glaucous; tepals 6 in 2 whorls, free or fused at base, somewhat dimorphic, 7–10.5 mm long, of outer whorl oblanceolate and 2-3.5 mm wide, of inner whorl narrowly ovate to elliptic and 3.5-5 mm wide, obtuse to rounded at tip, pinkish white with reddish or brownish midstripe; stamens 6 in 1 whorl, free or fused to bases of tepals, 5–8.5 mm long, dimorphic, the 3 stamens opposite outer tepals \pm 1.5 mm shorter; filaments whitish, conspicuously papillate on outward sides of inflated bases, very slender at tips; filaments fused to outer tepals with tonguelike base appressed to ovary and touching base of style, the erect portion subterminal and narrowly club-shaped (clavate), $\pm 2 \text{ mm}$ long, pale pink to white, smooth; filaments fused to inner tepals flame-shaped, the basal portion narrowly obovate and appressed to ovary but not touching style, ± 1.7 mm long, the erect portion cylindric and terminal on base; anthers versatile, dithecal, 2–2.3 mm long, orange, longitudinally dehiscent; pollen orange; **pistil** 1; ovary superior, 3-lobed spheroid, ± 1.5 mm, dark green, nectar copious on top of ovary trapped by filament bases, 3-chambered with a shallow medial, longitudinal depression, each chamber with 2 ovules; style erect, tapered to base, 5–7 mm long, pale pink to white; stigmas 3, spreading, spheric, 0.7–1 mm long, light coral or orange-pink, conspicuously papillate. Fruit: capsule, loculicidal, dehiscing by 3 valves, 6-seeded, \pm spheric and 3-lobed on top with depressed center, in range 4.5–5 mm, 3-chambered. Seed: 3-sided with curved back and 2 flat faces, $3-3.3 \times 1.5$ mm, dark brown, each surface with several deep pits. Early March-early August.

Naturalized. A European geophytic perennial occasionally cultivated in gardens of southern California, but which has escaped and thoroughly established at a few localities in SMM. This species is described as an annual or a short-lived perennial, but *Asphodelus fistulosus* produces leaves and flowers every year at a site on Malibu Creek State Park even though plants are mowed before or after they set seed. Leaves are turgid with large water-storing cells at the core; acting as a hydrostat, this design permits leaves to remain

upright even during summer drought, when other herbs have dry, dead aboveground shoots.

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