

Linaria maroccana Hook. f., MORROCAN TOADFLAX. Annual, taprooted, several-stemmed at base, decumbent from root crown, 25–35(–50) cm tall; shoots with only cauline leaves, glabrous except glandular short-pilose in inflorescence. **Stem:** cylindric, to 5 mm diameter, green becoming purplish red or brownish at base; solid. **Leaves:** helically alternate but opposite decussate at the lowest nodes, sessile, without stipules; blade linear or narrowly lanceolate to oblanceolate, 26–65 × 1.8–8.5 mm, tapered at base, entire and becoming inrolled under on margins, rounded to narrowly acute at tip, only midrib visible. **Inflorescence:** raceme (several-branched panicle of racemes), terminal, dense in bud and at anthesis becoming open in fruit, many-flowered, bracteate, glandular-pubescent; peduncle 70–180 mm long, somewhat zigzagged, lacking bracts, glabrous; rachis sparsely glandular-hairy; bractlet subtending pedicel obovate to lanceolate, 5–11 × 2–2.5 mm, tapered at base, entire and inrolled under margins (appearing linear), ciliate with some hairs gland-tipped, broadly acute at tip; pedicel suberect to ascending, 3–5 mm long increasing 1.5× and arching outward in fruit, sparsely to moderately short-pilose and with gland-tipped, colorless to purplish red hairs. **Flower:** bisexual, bilateral, 12–13 mm across, spurred; **calyx** 5-lobed, fused only at base; tube short and oblique, 0.2–0.6 mm long between upper lobes, 0.1–0.3 mm long between lowest lobes, sparsely hairy; lobes subequal, elliptic, 4.2–5.7 × 1.3–2 mm, green with pale green on basal margins and reddish purple on other margins, upper lobe the longest and narrowest and basal lobes the shortest and widest, membranous and ciliate on margins, acute at tip, sparsely hairy at base of lobes, the hairs (septate) transparent tinged purplish red; **corolla** 2-lipped, 5-lobed, spurred on lower side, 15–20 mm (including nectar-producing spur), red-violet to magenta, deep purplish red, red, with or without yellow-orange, yellow, or white; tube 2–3 mm long, 4–4.5 mm wide at orifice, swollen around ovary on upper side, with dark purplish red veins, purplish red on upper side, yellowish or whitish with 2 yellowish streaks (orangish at base) continuous with ridges on palate on lower side; spur slightly arched upward and passing between lower lobes of calyx, tapered to tip, 7.5–8 mm long, 2 mm wide at base of tube; upper lip 2-lobed, 7.5–9 × 4.5–6.5 mm, purplish red to reddish purple, keeled from sinus to midlip (ventral face), tinged orange on keel, ascending above, sinus 1.5–2.5 mm deep between lobes; lower lip = a 3-lobed palate, 5–5.5 × 6–8 mm, above midpoint (distal portion) of 2 semi-circular ridges separated by a deep, medial groove, appressed to upper lip at base, yellow-orange fading to white near margin and then purplish red on outwardly curved lobed margin, the lower portion cupping and concealing anthers, 2-ridged contacting filaments, densely short-pilose on margin, ridges, and the cup surrounding anthers; **stamens** 4, attached to base of corolla tube, upper pair 3.5–4.5 mm long, lower pair 5–6.5 mm long; filaments thick, slightly flexuous, papillate at base (especially the lower pair), tinged purplish red base-to-tip or only at base and tinged yellowish approaching anthers, the base of upper pair arched toward each other and around style + appressed together, the lower pair separate, curved at base conforming to ovary, arching toward each other at tip, slightly flattened and expanded below anthers with slightly fused anthers; anthers basifixed, dithecal, included, 0.5–0.8 mm long, longitudinally dehiscent; pollen bright yellow; **nectary disc** surrounding base of ovary, slightly oblique, < 0.5 mm thick, dark green; **pistil** 1, 4.5–6 mm long; ovary ovoid to domelike, 1–1.3 × 1–1.2 mm, green, glandular-pubescent at least above midpoint, 2-chambered with subequal chambers (lower chamber slightly larger), each chamber with numerous ovules; style positioned above filaments and appressed to upper lip of corolla, 3.5–4.5 mm long, pale green at base

to purplish red above, 2-lobed, the lobes stigmatic, \pm capitate, 0.4–0.5 mm long, yellowish orange, grooved on inner face. **Fruit:** capsule, opening into 2 chamber by slits near tip, many-seeded, spheroid, 3–5 mm. **Seed:** \pm pyramid-shaped, ca. 1 mm long, black, ridged. Late March–early May.

Naturalized. Annual known locally as a dainty ornamental in the horticultural trade, but also encountered rarely along trails where the seeds could have been dropped, probably intentionally, e.g., in Griffith Park, along Decker Road at the summit, and along the upper Cistern Trail at Malibu Creek State Park (SMM). *Linaria maroccana* is not particularly noteworthy in vegetative condition, but this is one of the few species in range having a spur, in this case part of the corolla projecting between the basal lobes of the calyx. Moroccan toadflax exhibits a wide variety of flower colors, including purplish red to lighter versions to orange-yellow or mostly yellow, and often the darker forms have yellow or white, so any combination should be expected. *Linaria pinifolia* (Poiret) Thell. should also be expected, because it is cultivated locally, but an earlier report appears to have been misidentified.

B. A. Prigge & A. C. Gibson