

Modiola caroliniana (L.) G. Don, CAROLINA BRISTLE MALLOW. Perennial herb, taprooted (rooting at basal nodes), prostrate to decumbent, to 28 cm tall, 15–90 cm long; shoots somewhat soft-hairy, stiff-pilose and with shorter stellate hairs and inconspicuous, slender erect hairs, the long hairs to 2.5 mm long and with conspicuously swollen and persistent bases. **Stems:** cylindric, to 4 mm in diameter, tough, green, bearing scattered single hairs and often inconspicuous, short-stellate hairs. **Leaves:** helically alternate, palmately dissected into 3 or 5(7) lobes and toothed, petiolate, with stipules; stipules 2, fused to stem at node, broadly ovate to triangular, 4–6 mm long, sparsely pubescent, late-deciduous; petiole channeled, several–50+ mm long; blade broadly ovate to round in outline, 15–55 mm long, slightly longer than wide, lobes obovate with broad teeth above midpoint, odd-palmately veined with principal veins raised on both surfaces. **Inflorescence:** flowers solitary, axillary, on slender stalk, bracteate; pedicel at anthesis 10–12 mm long increasing 2× in fruit, green turning reddish brown, flexible aging stiff, pubescent with spreading long hairs; bracteoles subtending calyx 3 (epicalyx), appearing whorled, oblanceolate and appearing petiolate, at anthesis ascending and 4–5 mm long increasing and spreading in fruit. **Flower:** bisexual, radial, 7–10 mm across, dish-shaped; **calyx** 5-lobed, green, with scattered long hairs having conspicuous, swollen bases; tube cup-shaped, at anthesis 2–3 mm long increasing in fruit, 10-veined, bumpy from stout hair bases; lobes spreading (when fully open), triangular-ovate, 3–4 mm long increasing in fruit, acute but abruptly tapered at tip, with a conspicuous midvein and covered with stout hair bases, lower surface with long hairs, internally (upper surface) with short-stellate soft hairs; **petals** 5, fused to expanded base of staminal tube, obovate with thick base, in range 3–4.5 mm long, ± glossy light yellowish green at base, limb dull deep yellowish pink to reddish orange, with veins of same colors radiating from base, short-ciliate on margins of base; **stamens** ca. 20, monadelphous (fused into column) with dome (fused portion) covering ovary + a cylindric tube; tube ca. 1 mm long, dome and tube pale green at base, free filaments ca. 1 mm long, pale yellowish green; anthers dorsifixed, monotheical, < 0.5 mm long, orange-yellow, longitudinally dehiscent; pollen orange-yellow; **nectary** on outside of staminal dome alternate with petal bases, nectar produced as 5 beads of liquid; **pistil** 1, 4 mm long; ovary superior, hidden beneath staminal column, shallowly 14–22-lobed (= ovary segments), tirelike with depressed center, 1 × 2 mm, green, densely covered above midpoint and around depression with ascending, stiff unbranched hairs and sessile glandular hairs, each ovary segment 2-chambered and with 2 incipient beaks, the chambers separated by a partition and each chamber with 1 ovule; style arising from depressed center as a column ca. 1.5 mm long, where covered with white hairs, exposed style strong red, branches = ovary segments, free, exposed portion curved among filaments, to 1.2 mm long, extending just above the longest stamens; stigmas capitate, dark red (darker than style), papillate. **Fruit:** schizocarpic capsule, septicidally breaking into segments (mericarps), each mericarp loculicidal and 1–2-seeded, outer rim with 2 spreading, outward-pointing, bristlelike horns per mericarp, mericarps sickle-shaped, black, with stiff hairs along edges, and wrinkles on side, horns 1.1–1.5 mm long. **Seed:** lopsided heart-shaped to squarish with depression at hilum, ca. 1.5 mm long, dull frosted dark brown, with hairs near hilum or both ends. Mid-April–early August.

Naturalized. Perennial herb of gardens and lawns of Santa Monica and other places in West Los Angeles and likely present near homes, but to date vouchered from a neglected locality near the La Kretz Center (SMM). *Modiola caroliniana* in leaf resembles a weedy geranium but has inconspicuous short-stellate hairs that can only be seen with strong magnification. The flower is typical for Malvaceae; stamens are fused into a column, upon which the petals are fused at the base, and the bright red, many-branched style is exerted through the staminal tube. Its flower has reddish orange petals that close soon after being picked, so this species is easily distinguished from other mallows and geraniums. The fruit is typical of the wheel-like capsules of Malvaceae that break into segments, but in *Modiola* each mericarp bears a pair of projecting horns and two seeds (two chambers). The seeds of a mericarp are separated by a partition; the upper seed falls out after the segment splits open to the partition, but the lower, second seed remains within the mericarp for dispersal.

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