

Cylindropuntia californica (Torrey & A. Gray) Knuth var. *parkeri* (Coult.) Pinkava, CALIFORNIA CHOLLA, Shrub, stem succulent, spinescent, thicket-forming, several-stemmed at base, with photosynthetic green stems, irregularly branched, ascending to erect, in range 90–150 cm tall; shoot = a series of cylindrical stem segments (joints), only shallowly constricted between segments, the terminal and subterminal ones possibly dislodged, bearing clusters of radiating leaf spines on pads at nodes (areoles) on the stem surface; major upright stem woody and without conspicuous constrictions. **Stems:** segments 150–300 × 15–30 mm (before wood development), with helically arranged, moundlike tubercles (≈ modified leaf bases) and associated areoles (= spine-bearing short shoots) in the axils; tubercles oblong-elliptic in outline, on mature new segments 4–5 mm high (= fully hydrated) and becoming a mound 15–30 mm long, grayish green and glaucous, glabrous; flesh (cortex and pith) watery and mucilaginous; areoles broadly oval, in range 2.5–3.5 mm across, covered with tannish, woolly hair aging brown then dark gray. **Leaves:** helically alternate, simple, sessile, without stipules, dimorphic; photosynthetic cauline leaves short-lived on newly emerging shoots, lanceoloid, (3.5–)5.5–7 × 1.5–2 mm, fleshy, green soon aging magenta reddish and abscising during shoot expansion; leaf spines on areoles (= modified leaf forms) of two types, persistent and radial spines + deciduous glochids, not photosynthetic; principal radial spines 7–13 per areole + several minor spines around edge of areole, unequal, needlelike, the longer ones 15–36 mm long, yellowish on old stems aging dark gray, the longest spine typically spreading to slightly descending, round in \times -section, tapered to sharp point, with surface layer separating as a somewhat persistent, scarious, straw-colored to yellowish spine sheath (removable with forceps); deciduous spines (glochids) barbed at tip, irritating in skin, formed in a dense, erect cluster at upper edge of areole, in range typically 1–1.5 mm long, tannish; **nectaries** on some areoles 1–3, projecting from wool between central spine and glochids, conic, to 1 mm above hair, rose-pink, excreting viscid droplet of nectar. **Inflorescence:** flowers solitary (areole dies after flowering), sessile, with ovary covered by stem tissue hence having tubercles and spine-bearing areoles and short-lived, lanceoloid to ovoid cauline leaves; flower only forming from a stem areole, not proliferating later from areoles of fruit. **Flower:** bisexual, radial, funnel-shaped, 35–40 mm across, ca. 35 mm long; **perianth** of \pm 21 segments; segments helically alternate, overlapping, unequal in a graded size and color series, the outermost segment ovate, 5–6 mm long, dark magenta-red, the longest inner segments obovate, 20–22 mm long, yellow with lighter margins and jagged at top, with intermediates wedge-shaped to ovate having progressively more yellow margins inward and base toward tip; perianth abscising from immature fruit as a unit with stamens; **stamens** > 150, \pm free (filaments of outer ring for some stamens fused at base), formed on a steeply sloped axis, at anthesis erect but when touched responding and quickly tilting toward style; filaments of outer stamens gradually tapered with slender tip, ca. 10 × 1–1.3 mm, fleshy, pale yellow and greenish at base, grading to inner ones 5–5.5 mm long, slender, pale yellow; anthers dorsifixed, dithecal, 2.5–2.9 mm long, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1; ovary inferior, embedded in receptacle (stem tissue), inversely pyramidlike, 11–13 × 16–17 mm, with high tubercles, tubercles elliptic bearing ephemeral conic leaves as on stems, occasionally with pink, conic nectary as on stem areoles; ovary areoles \pm round to obovate, with glochids, the youngest areoles (next to perianth) typically with several fine spines to 10 mm long, spines weakly

attached at base and deciduous; 1-chambered with many ovules attached to wall, chamber inversely pyramidlike, 4×3 mm; ovary wall thick and mucilaginous; style inversely club-shaped, $12.5\text{--}14 \times 3$ mm (below stigma), white, surrounded by sunken nectary chamber; stigmas 5, exerted to 7 mm above central anthers, erect, the fleshy, triangular lobes 3 mm long, white, papillate. **Fruit:** berry, formed only singly, ca. 30-seeded, short top-shaped to subspheroid, in range $23\text{--}25 \times 18\text{--}20$ mm, gray-tan when dry, with glochids or sometimes easily broken thin spine near top, top depressed ca. 3 mm, with wide chamber. **Seed:** compressed and squarish to angular, in range $5\text{--}6.5 \times 4\text{--}6$ mm, tan, with several deep depressions and a smooth girdle resembling only a low ridge along edge. Late April–early July.

Native. Succulent shrub, occurring only in Griffith Park in well-defined thickets of several individuals, persisting there from where it was probably planted, although it is native to Los Angeles County. *Cylindropuntia californica* var. *parkeri* was formerly misnamed as a variety of the desert cholla *Opuntia echinocarpa* of southern California, but has thinner joints, which are less easily detached than its widespread cousin. California cholla does not produce fruits in chains. Flower buds of both local chollas are magenta red, but those of California cholla open yellow, and its fruits contain large, viable seeds.
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