

Cylindropuntia prolifera (Engelm.) Knuth, COASTAL CHOLLA. Shrub, stem succulent, spinescent, clonal via detached, rooted stem segments, fibrous-rooted, 1–several-stemmed at base, with photosynthetic green stems, irregularly branched, ascending to erect, in range 50–200 cm tall; shoot = a series of cylindrical stem segments (joints), deeply or shallowly constricted between segments, the terminal and subterminal ones easily 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 \pm sausage-shaped, typically 40–150 \times (15–)27–35 mm (before wood development), with helically arranged, moundlike tubercles (\approx modified leaf bases) and associated areoles (= spine-bearing short shoots) in the axils; tubercles \pm oval-rhombic in outline, on mature new segments 4–6 mm high (= fully hydrated) and somewhat flattened becoming a mound 10–15 mm long, grayish green, glabrous; flesh (cortex and pith) watery and mucilaginous; areoles round to oblong or obovate, in range 2–3 mm across, covered with tannish, woolly hair. **Leaves:** helically alternate, simple, sessile, without stipules, dimorphic; photosynthetic cauline leaf short-lived on newly emerging shoots, narrowly conic, 2–4 \times 1–1.2 mm, fleshy, green soon aging yellowish and abscising during shoot expansion; leaf spines on areoles (= modified leaf form) of two types, persistent and radial spines + deciduous glochids, not photosynthetic; radial spines 5–12 per areole, unequal, linear, 1–30 mm long, beige aging red-brown, the longest spine typically ascending, round in \times -section, tapered to sharp point, with surface layer separating as a somewhat persistent, scarious, straw-colored spine sheath (easily removed when handled); deciduous spines (glochids) barbed at tip, irritating in skin, formed in a dense, erect cluster at upper edge of areole, in range typically 1.5–2.5 mm long, pale tannish. **Inflorescence:** flowers solitary (areole dies after flowering), sessile, with ovary covered by stem tissue hence having tubercles and spine-bearing areoles and short-lived, narrowly conic cauline leaves; first flower forming from a stem areole, often with other flowers proliferating later from areoles near the top of the initial fruit producing a chain of 2–5 developing fruits and new flowers. **Flower:** bisexual, radial, dish-shaped, 35–43 mm across, ca. 30 mm long; **perianth** of 25+ segments; segments helically alternate, overlapping, unequal in a graded size and color series, the outermost segment wide-triangular, 2–4 mm long, greenish and rose-magenta, the longest inner segments obovate, 16–21 mm long, rose-magenta with green at base; perianth abscising from immature fruit as a unit with stamens; **stamens** > 100, free, formed on a steeply sloped axis, at anthesis erect but when touched responding and quickly tilting toward style; filaments of outer stamens tapered candle-shaped, ca. 10 \times 1 mm, fleshy, green, grading to inner ones 5 mm long, slender, yellowish; anthers dorsifixed, dithecal, 2–2.3 mm long, yellow, longitudinally dehiscent; pollen pale yellow; **pistil** 1; ovary inferior, embedded in receptacle (stem tissue), subspheric, 18–20 mm wide, roundish with ca. 20 low tubercles, tubercles round-rhombic bearing ephemeral conic leaves as on stems; ovary areoles \pm round, with glochids, the youngest areoles (next to perianth) typically with several fine spines to 12 mm long, spines weakly attached at base and deciduous; 1-chambered with many ovules attached to outer margin, chamber flat-hemispheric, 5 mm wide; ovary wall thick and mucilaginous; style inversely club-shaped, 16–17.5 \times 3–3.5 mm (below stigma), pale green, surrounded by sunken nectary chamber; stigmas (3–)4, exserted to 5 mm above central anthers, erect, the tongue-shaped lobes 3 mm long, greenish yellow aging darker, papillate. **Fruit:** berry, seedless, formed singly or in

irregular short chains, flattened spheric with depressed top covered with periderm, \pm 25 mm diameter, tubercles nearly flat + areoles with glochids, typically without permanent spines; chamber small, in range containing numerous aborted seeds. Late April–late June.

Native. Succulent shrub forming fairly dense thickets, often in the vicinity of clonal platyopuntias. Flowers of *Cylindropuntia prolifera* open in the morning and close the same day. All fruits are apparently sterile; populations persist via vegetation reproduction when adventitious roots form on fallen stem segments. Clonal populations occur at several sites along coastal bluffs and, more abundantly, inland in the northwestern portion, especially on disturbed coastal sage scrub in Thousand Oaks, especially on slopes of Mountclef Ridge within and outside Wildwood Regional Park (SH).

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