

Calystegia soldanella (L.) R. Brown, BEACH MORNING GLORY, SAND CONVULVULUS.

Herbaceous perennial vine, trailing, rhizomatous, prostrate to procumbent, in range < 20 cm tall; shoots with ascending leaves, glabrous and \pm fleshy; latex white, copious; rhizomes horizontal < 10 cm deep, cylindrical, 5–7 mm diameter, internodes long, flexible, firm, the scales deltate, projecting and having axillary buds; subterranean axes cylindrical, pink, with fine adventitious roots at nodes. **Stems (aboveground):** weakly ridged, 2–3 mm diameter, ridges 3 per internode with 2 ridges descending from each leaf, commonly pinkish olive to reddish purple aging olive-brown, internodes 5–35 mm long, surface \pm bumpy with light-colored, raised stomates. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole narrowly channeled and especially pronounced at tip, 13–70 \times 2–3 mm, fleshy, strong reddish purple most of length becoming green approaching blade, heart-shaped in \times -section; blade kidney-shaped to round or triangular-ovate, 20–60 \times 20–70 mm, 9–45 mm long along midrib, typically length < width, blade < petiole, slightly fleshy, with inwardly arching, overlapping, rounded lobes at base, entire and somewhat wavy on margins, rounded to slightly notched with a minute point at tip, palmately veined with 5 principal veins, dark green and semiglossy. **Inflorescence:** flowers solitary, axillary, bracteate, glabrous; peduncle (pedicel) 25–60 mm long, \pm 2 mm diameter at base, pink to reddish purple; bractlets subtending flower 2, opposite, erect, cupping and enclosing calyx, broadly ovate to \pm rounded, in range 8.5–13 \times 5–10 mm, green but purplish along midrib, at tip, or on margins, sometimes with 1 margin overlapping margins of other bractlet, in bud strongly angled or \pm keeled along midrib becoming more rounded or flattish at anthesis, somewhat lobed (auriculate) and cupped at base, entire to angled or \pm 1-toothed on margins, truncate or notched with short point at tip, veiny and \pm glossy. **Flower:** bisexual, radial, in range 45–55 mm across, broadly funnel-shaped, pleated in bud; **sepals** 5, overlapping, erect, ovate, 12–13(–16) \times 4.5–7.5 mm, narrower inward, light green with purplish tip, entire or with a notch or tooth near midpoint on each or both margins; **corolla** shallowly and broadly 5-lobed, 40–50 mm long, pink and white with 5 broad, pink sectors alternating with narrow whitish sectors, glabrous, glossy white at base; **stamens** 5, fused to basal 6–7 mm of corolla, included; filaments 20–22 mm long, white, very thick at base where fused to corolla and concealing ovary and nectary, tapering to tip; anthers basifixed, dithecal, arrow-shaped, in range 5–5.8 \times 1.8–2.2 mm, whitish, longitudinally dehiscent; pollen whitish or colorless; **nectary** surrounding base of ovary, ringlike, \pm 1.5 mm long, 3 mm diameter, light yellow, producing copious nectar; **pistil** 1, \pm 22 mm long; ovary superior, conic, 2–2.5 mm long, white to pale green, 1-chambered with 4 ovules attached to base; style \pm 17.5 mm long, 2-branched near tip, white; stigmas 2, at level with anthers, flattened ellipsoid or club-shaped, 2.5–2.8 mm long, white, cobblestonelike. **Fruit:** not found in range, capsule, indehiscent, 4-seeded, spheroid. Late March–late May.

Native. A fleshy, seashore perennial herb growing in pure sand on beaches north of Malibu. *Calystegia soldanella* was known to Linnaeus, so there is some question whether this is a native of southern California, but beach morning glory certainly looks like a native growing on our sandy beaches. Beach morning glory flowers during springtime, but not every year, and flowers are rarely observed even on robust plants. In addition, fruit

production apparently is not occurring locally, probably because an effective pollinator is not available.

B. A. Prigge & A. C. Gibson