

Aptenia cordifolia (L. f.) Schwantes × *A. haeckeliana* (A. Berger) Bitttrich & Gerbaulet 'Red Apple', PLATYTHYRA. Perennial herb, fleshy, evergreen, fibrous-rooted, many-branched at base, dense mat-forming, unequally forking at each node and below each flower, prostrate and trailing, in range 6–18 cm tall; shoots with equal cauline leaves at each node, ± glabrous with domed or hemi-sausage-shaped, water-storing epidermal cells; not rooting from aboveground stems. **Stems:** ± 4-angled and commonly 2-ridged, on young stems 3–4 mm diameter, with 1 ridge ± decurrent from each leaf, internodes to 50 mm long, with domed water-storing epidermal cells domed or hemi-sausage-shaped. **Leaves:** opposite decussate, simple, petiolate with paired leaves fused across node, without stipules; petiole fleshy, channeled, 1.5–2 mm thick, V-shaped in ×-section, with some short-papillate hairs on margins; blades fleshy ovate, in range 15–27 × 7–20 mm, 1–1.2 mm thick, flat to slightly upwardly folded along midrib, tapered to broadly tapered at base, entire, ± acute at tip, midrib only visible and slightly raised on lower surface, surfaces initially with circular to elongate cells but later appearing somewhat pitted when cells collapse from water stress. **Inflorescence:** leafy cyme, terminal but flowers appearing axillary from the growth of an axillary branch from below flower; bractlet subtending pedicel = cauline leaf; pedicel somewhat ridged, ca. 5 mm long. **Flower:** bisexual, radial, 18–20 mm across, with receptacular tissue above ovary; **sepals** 4, formed on receptacular tissue above ovary, spreading becoming erect in fruit, fleshy, dimorphic; outer 2 sepals opposite, leaflike with petioles, oblong or obovate to oblong or fiddle-shaped, 16–19 × 7–8 mm increasing to 24 mm long in fruit, flat, with papillate hairs on basal margin; inner 2 sepals shorter, conic with fingerlike tip, at anthesis 8–10 mm long increasing to 13 mm long in fruit, with expanded membranous margins on free edges of conic base; hypanthium collarlike, ± 1 mm long, membranous and whitish; **petals** > 80, arising from upper hypanthium, unequal, oblanceolate-linear, 6.5–8 × 0.7–1 mm, strawberry to vivid red or reddish orange, sometimes with ± orange midstripe, fading to pale pink at base; petaloid staminodes ca. 15, linear, 4–5.5 mm long, narrower and shorter than inner petals, mostly whitish with orange-yellow tip; **stamens** many, ± free; filaments 1.3–3 mm long, whitish; anthers dorsifixed, asymmetrically dithecal, 0.5–0.7 mm long, light yellow, longitudinally dehiscent; pollen yellow; **pistil** 1; ovary inferior, sunken in receptacle tissue, somewhat 4-sided in ×-section, 4-chambered, each chamber with ± 15 ovules; styles absent; stigmas 4, ovoid to teardrop-shaped (lacrimoid), ± 0.7 mm long, yellowish green. **Fruit:** berry, in range few-seeded, inverted conic, 6–8 × 6 mm, with a persistent, caplike cover; sepals erect becoming desiccated and shrunken but persistent. **Seed:** D-shaped, ca. 1.5 × 1.1 mm, light orangey brown, with rows of prominent wartlike cells (tuberculate). Mid-June–late July (wild materials).

Waif. A fleshy perennial widely planted but rarely observed as an escape, growing as mats in waste areas, e.g., on the westernmost edge of the range near the Camarillo water treatment plant. The cultivar grown commonly throughout the region is 'Red Apple', which was the result of hybridizing *Aptenia cordifolia* and *A. haeckeliana*. That cultivar was popularized in the 1980s, when it became widely used initially as a ground cover of shopping centers, and has vibrant dark magenta flowers, but this form generally does not form fertile seeds. The form found in range was observed already in the 1970s, and tends to have brick red to strawberry-colored flowers and forms fruits occasionally with a viable

seed. On those bases, the wild-collected individuals are assumed to be an earlier cultivated form. Cultivar 'Red Apple' persists where planted as a ground cover on hillsides.
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