

Dudleya Britt. & Rose LIVEFOREVER

Dudleya caespitosa (Haw.) Britt. & Rose, COAST DUDLEYA, SAND-LETTUCE. Perennial herb, leaf-succulent, evergreen, taprooted with thick caudex, rosetted, several-stemmed at base, branching from tip every 3–4 years to form \pm equal decumbent branches, with erect inflorescences, to 55 cm tall; shoots each with a permanent rosette including 12–17+ healthy, gray-green, succulent leaves at flowering in tight arrangement, a central group of leaves waiting to expand during the next rainy season, and desiccated old leaves (persisting ca. 3 years), rosette in range 50–80 \times 50–110 mm, stem becoming visible as old leaves die and shrivel, glabrous, in range glaucous; taproot shallow, woody and not succulent. **Stems:** 12–40 mm diameter, succulent, with leafy rosette for 10–30 mm at tip. **Leaves:** helically alternate, simple, sessile, without stipules; blade lanceolate to oblong or oblong-ob lanceolate, to 50 \times 9–15 mm, to 9 mm thick at base and half as thick at midpoint, entire, acute to acuminate at tip, venation obscure, glaucous but not powdery. **Inflorescence:** cyme, several inflorescences per rosette, each inflorescence ascending to erect on long peduncle arising from axillary bud below green leaves, 2–4 \times 2-forked (sometimes 3-forked at base or on lateral branches), cyme portion in range 60–120 \times 60–180 mm when fully expanded, each branch \pm ascending, terminal branches (cincinni) 3–6, 4–14-flowered, 1-sided with erect flowers on upper side, bracteate, glabrous, distinctly glaucous; peduncle cylindric, 270–450 mm long, to 5 mm diameter at base, bracteate, hollow; bracts along peduncle spreading to reflexed, at base = cauline leaves, acuminate-triangular to lanceolate, 9–30 \times 5–6.5 mm, gradually reduced upward, sessile, sometimes with base slightly decurrent; cincinni to 70 mm long, flexible; bractlet not subtending pedicel but typically subopposite pedicel and lower on axis than pedicel, ovate, 1.8–4 \times 1.5–3 mm, thick and fleshy, green and conspicuously glaucous, \pm cordate at base, acute to acuminate at tip; internodes at anthesis 3–4.5 mm long increasing 2 \times in fruit; pedicel erect, 0.7–3 mm long, green and glaucous, not bent in fruit. **Flower:** bisexual, radial, erect, 5–9.5 mm across; **calyx** 5-lobed, cup-shaped, 4–8 mm diameter, fleshy, green, glaucous; tube 1.5–2 mm long; lobes triangular, 2.5–4 \times 2.5–3.3 mm, glossy green beneath surface wax becoming reddish; **corolla** 5-lobed, bright greenish yellow or bright yellow; tube cup-shaped, in range \pm 1 mm long; lobes overlapping, erect but arching outward at tip, ovate, 7–12.8 \times 3.1–4.5 mm, broadly and thickly keeled and becoming orange-red along keel, acute at tip; **stamens** 10 in 2 whorls opposite and alternate with corolla lobes, fused to corolla tube, included, somewhat dimorphic; filaments tapered, 0.3–0.8 mm wide at base, fleshy, light to pale yellow, filaments of outer whorl opposite calyx lobes fused 1 mm below sinuses of corolla, free portion 3–7 mm long, filaments of inner whorl opposite corolla lobes fused to top of corolla tube and appressed to lobe, fused portion 1–2.5 mm long and free portion 2–5 mm long, narrower at base than outer filaments; anthers basifixed (filament tip inserted into a short tube in connective), dithecal, \pm oblong, 1–1.3 \times 0.6 mm, yellow, \pm truncate at base, rounded at tip, longitudinally dehiscent; pollen yellow; **nectaries** 5, opposite petals at bases of pistils, oblong to arching-oblong, \pm 1 \times 0.3–0.4 mm, pale green, elevated \pm 0.25 mm above receptacle; **pistils** 5, slightly fused at base, erect and appressed; ovaries superior, each narrowly fusiform, 5–5.5 \times 1.5–1.6 mm, light green, convex on back and angled on inner face, pie-shaped in \times -

section, tapered to style, each chamber with 30–40 ovules attached to outer side; styles gradually tapered from ovary, 2–2.5 mm long, light green above ovary becoming darker green below stigma; stigma terminal to minutely capitate, ± 0.25 mm, light green, minutely papillate. **Fruits:** follicles, 5, erect, each dehiscent along inner edge, many-seeded, narrowly fusiform-lanceoloid, 8–9 mm long (including persistent style). **Seed:** lanceoloid, $1.1\text{--}1.3 \times 0.4\text{--}0.5$ mm, brown, with ca. 18 longitudinal ribs. Late March–late July.

Native. Succulent perennial herb growing only along the immediate coast just behind dunes from Malibu westward, in community associations with *Abronia umbellata*, *Leptosyne gigantea*, *Croton californicus*, and *Eriogonum parvifolium*. *Dudleya caespitosa* has a fairly distinctive vegetative plant, with a caespitose growth habit and several rosettes of glaucous leaves, but the taxonomic status of these populations may not yet be fully resolved.

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