

*Croton californicus* Müller Arg., SAND CROTON. Perennial herb to subshrub, many-stemmed at base, much-branched throughout, decumbent to ascending, 8–80 cm tall; dioecious; shoots gray-green to silver-green from reflective shieldlike (peltate) stellate hairs with clear center aging brownish, each hair with 10–20 rays from top of stalk fused at base and forming a plane or bowl; pleasantly aromatic; latex clear. **Stems:** cylindric, to 4 mm diameter, flexible but woody, densely pubescent. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole 4–27 mm long; blade elliptic or oblong to lanceolate or  $\pm$  linear, 10–55(–70)  $\times$  3–18(–26) mm, rounded at base, entire, rounded to obtuse or acute at tip, pinnately veined with midrib raised on lower surface, lower surface silvery. **Staminate inflorescence:** raceme, terminal but paired with new shoot from adjacent leaf and appearing axillary, few–50-flowered, densely silvery peltate-stellate pubescent; bract subtending peduncle linear, deciduous; peduncle 1–4 mm long increasing to 10 mm long; bractlet subtending pedicel awl-shaped, tiny, deciduous; pedicel 1–5.5(–7) mm long. **Staminate flower:** radial, to 3.5 mm across; **calyx** deeply (4–)5-lobed, cup-shaped; lobes broadly ovate, 1.5–1.8  $\times$  1.2–1.8 mm, with slender hairs on margins and at tip, lower surface peltate-stellate; **corolla** absent; **nectary disc** reduced to separate glands opposite sepals, the glands transversely oblong, 0.6–0.8 mm long, dark yellow, thick; **stamens** 10–15 (commonly 11), free; filaments  $\pm$  1.5 mm long, colorless, long-villous and whitish to light green below midpoint; anthers basifixed, dithecal, 0.5 mm long, light yellow, longitudinally and sideways dehiscent; pollen light yellow; **pistil** absent. **Pistillate inflorescence:** cyme, several-flowered, flowers on short pedicels, densely peltate-stellate pubescent with scales and slender hairs; bractlet subtending flower typically 1, linear and  $\pm$  cylindric to lanceolate or ovate, 1–3 mm long, deciduous; pedicel 0.5–2 mm long increasing slightly in fruit. **Pistillate flower:** radial, 2–3 mm across; **calyx** deeply (4–)5-lobed; lobes erect, ovate to ovate-deltate, 1.5–2.6(–3)  $\times$  1.3–2.2 mm; occasionally with extra awl-shaped to ovate lobes resembling the calyx (= epicalyx); **corolla** absent; **nectary disc** below and surrounding ovary, ringlike, 1.5–2.5 mm wide, irregularly lobed, upper margin free, yellow, thin; **stamens** absent; **pistil** 1; ovary superior, weakly 3-lobed, covered with peltate-stellate scales, 3-chambered, each chamber with 1 ovule attached to center; styles 3, ascending to spreading, tentaclelike with 2–3 forks to form 4–8 terminal branches per style, 1.7–3 mm long, yellowish green at base, becoming paler toward tip, mostly peltate-stellate on the lower side and on upper side below first fork, papillate and stigmatic (presumably) on remaining faces, the terminal branch tapered, 0.5–1.5 mm long, pale green. **Fruit:** capsule, 3-seeded, 3-lobed, 5.5–6.5 mm wide and tall,  $\pm$  schizocarpic by dehiscing along septa and splitting from central axis into 3 segments, densely covered with peltate-stellate scales. **Seed:** with fleshy appendage (caruncle),  $\pm$  ovoid slightly compressed top-to-bottom, 3.5–5.5  $\times$  3–4 mm (including caruncle), smooth, blackish or mottled, the mottled seeds grayish with olive-brown to brown or black with irregular or  $\pm$  longitudinal markings, both faces convex but  $\pm$  flat or slightly concave around caruncle below tip and grooved on lower face. January–December.

Native. A fairly common, dioecious subshrub of coastal sand dunes, but also appearing in several inland localities, e.g., on the Chatsworth Reservoir (SH). This species is distinctive because all surfaces are densely covered with scales (hairs), making the organs appear silvery, but there is a brown dot at the center of each scale. *Croton californicus*,

when handled fresh, has a peculiar but very pleasant aroma. Neither sex is spectacular in flower; the staminate plants are easy to recognize by the light yellow pollen, and the pistillate plants are easy to recognize by having three-lobed fruits typical of Euphorbiaceae. This species was previously described as having several subspecies, based on geographic distributions, but recently the tendency has been to lump all populations without recognizing special trinomials.

B. A. Prigge & A. C. Gibson