

*Venegasia carpesioides* DC., CANYON-SUNFLOWER. Shrub, drought-deciduous, weakly woody, upright with ascending branches, 50–250 cm tall; shoots puberulent with short nonglandular hairs and sessile glandular hairs, foliage strongly aromatic. **Stems:** cylindric or somewhat ridged, ridges when present 3 descending from each leaf, often reddish purple, with scattered short hairs; pith solid and wide, white. **Leaves:** helically alternate and opposite (at first node on each new shoot), simple, petiolate, without stipules; petiole compressed on top at base grading to hemi-cylindric approaching blade, 12–75 mm long, puberulent; blade triangular-ovate, 30–150 × 20–105 mm, thin and easily wilted, cordate to truncate or asymmetric at base, crenate to short-dentate to subentire on margins, acuminate to acute at tip, pinnately veined, when symmetric with 3 major veins ± from base, principal veins raised on lower surface, dull. **Inflorescence:** heads solitary or in leafy cymelike arrays, head radiate, 30–60 mm across, with 12–21(–34) ray flowers and many disc flowers, bracteate; bract subtending peduncle leaflike; peduncle (15–)20–60 mm long, expanding and typically with fine, short, dark red to purple hairs just below head, with several narrow bracts along axis, bracts subtending involucre 0–2 (calyculus), lanceolate-ovate ca. 10–14 × 4–6 mm, with short petiole; **involucre** cup-shaped, 9–12 mm wide (excluding spreading bracts), phyllaries 20–many typically in 4–6 series, often wavy on margins, with sessile glandular hairs on lower surfaces, outer phyllaries ca. 6, spreading to reflexed and triangular, ca. 10–14 × 4–6 mm, green or purplish red at base, middle phyllaries broadly triangular to roundish or obovate, ca. 8–10 mm long, green with light brown hair layer on upper surface (= glistening glandular hairs and short red nonglandular hairs), the innermost phyllaries roundish, 4–6 mm long, light yellow and ± membranous sometimes with purplish surface below midpoint, with jagged margins, glabrous; receptacle flat or slightly convex, without bractlets (paleae), shallowly pitted, with minute hairs. **Ray flower:** pistillate, bilateral, to 7 mm across; **calyx (pappus)** absent; **corolla** unequally 3-toothed (unlobed); tube 2–3 mm long, whitish, with glistening, colorless, multicellular, glandular hairs especially above ovary; limb narrowly-oblong to oblong-ob lanceolate or narrowly elliptic, 15–24 × 3–7 mm, bright yellow, with ca. 10 parallel veins, rounded at tip with very short teeth; **stamens** absent; **pistil** 1; ovary inferior, subcylindric, 3 mm long, finely 16–20-ribbed, 1-chambered with 1 ovule; style yellow, bulbous at base, 2-branched, the branches spreading and exserted, ± 1 mm long. **Disc flower:** bisexual, radial, ca. 2 mm across; **calyx (pappus)** absent; **corolla** 5-lobed, 4.5–6 mm long; tube cylindric, 1 mm long, glistening and whitish, with dense, multicellular glandular hairs; throat narrowly bell-shaped, 3–5 mm long, bright yellow, with sparse, small glandular hairs; lobes spreading and triangular, 1 mm long, bright yellow; **stamens** 5, fused to corolla just below throat, exserted; filaments ± 2.5 mm long, yellowish, with stalked glandular hairs mostly above midpoint; anthers fused in cylinder surrounding style, basifixed, dithecal, 2–2.3 mm long (includes acute appendages ca. 0.5 mm long), yellow aging with 5 reddish purple stripes, tips minutely keeled on inner surface, longitudinally dehiscent; pollen yellow; **pistil** 1; ovary inferior, cylindric, white, finely 16–20-ribbed, with glandular hairs along ribs, 1-chambered with 1 ovule; style with **nectary** at base producing nectar, 2-branched, whitish from base to golden yellow approaching fork, the branches exserted and ascending becoming recurved after stamens dehisce, tongue-shaped with central groove, papillate-glandular at tip. **Fruits:** cypsela, monomorphic, ± club-

shaped straight or curved, in range  $2.8\text{--}3.2 \times 0.7\text{--}1$  mm, dark brown, glistening, ca. 10-ribbed, with minute bumps along ribs. Late December–early July.

Native. Shrub found throughout the range in relatively moist and shaded shrubland and southern oak woodland, including appearing as a pioneer species on slopes following fire. *Venegasia carpesioides* tends to have dark green, mostly alternate leaves, which are pleasantly aromatic because they are covered with minute glandular hairs. The heads first appear during wintertime and are bright yellow, resembling sunflower (*Helianthus*); its flowers produce copious nectar that attracts many insects as pollinators, as well as future seed predators (from larvae from oviposited eggs), eventually resulting in high losses of developing fruits. Fruits lack pappus. The head is easy to recognize because the outer phyllaries are leafy and spreading to reflexed, and therefore are not appressed, as in other showy, bright yellow sunflowers. Unlike *Helianthus* and *Encelia*, the receptacle of *Venegasia* lacks bractlets (paleae), and, in fact, canyon-sunflower is classified in a totally different subtribe, so is not closely related to them.

B. A. Prigge & A. C. Gibson