

Camissoniopsis bistorta (Torrey & A. Gray) W. L. Wagner & Hoch, CALIFORNIA SUN CUP.

Annual, taprooted, flat-rosetted, 1–several-stemmed at base, strongly decumbent to ascending or erect, 50–80 cm tall; shoots with basal leaves and cauline leaves, basal leaves sometimes abscised or withered on older plants, villous to short-strigose or sometimes densely hirsute on younger growth. **Stems:** cylindrical, initially green aging light straw-colored on older stems with surface layer peeling (exfoliating) thereby appearing glabrous. **Leaves:** helically alternate, simple, petiolate (basal leaves) to sessile (cauline leaves), without stipules; petiole cylindrical, to 10 mm long, often rose and strongly bent; blade narrowly elliptic or narrowly oblanceolate (basal leaves) to narrowly oblanceolate to lanceolate or linear (cauline leaves), 12–85(–120) × 1.5–11(–15) mm, narrowly tapered at base on basal leaves to tapered or subcordate and sometimes clasping on cauline leaves, short-dentate to remotely toothed and often wavy on margins, acute to rounded with short point at tip (slightly mucronate), pinnately veined with midrib pale green or tannish and raised on lower surface, margins and teeth becoming reddish, villous or strigose.

Inflorescence: leafy spike of axillary flowers, initially flowering next to rosette later on axis with nodding bud, bracteate, villous and sometimes densely hirsute at tip, not glandular-hairy. **Flower:** bisexual, radial, 14–22 mm across, dish-shaped; hypanthium above ovary, funnel-shaped, 2–4(–7.5) mm long, 1.5–4 mm across at top, yellowish green, internally yellow often with red dots near top, mostly 8-veined, glabrous to pubescent in lower portion, **nectary** at base of hypanthium surrounding style base; **sepals** 4, free or partially fused at tips as pairs when they split from pressure of expanding petals along suture lines, reflexed, individually lanceolate to narrowly triangular or acuminate-triangular, 2.3–9.5 × (0.8–)1–2 mm, bud villous and with short point at tip (apiculate); **petals** 4, spreading, obovate to fan-shaped, (4.2–)6.5–11.5(–15) × (2.5–)6–12(–16) mm, yellow with 1(–2) bright red spot near base, the spot 1.1–1.3 mm diameter, notched to truncate or rounded and sometimes also jagged on outer margin; **stamens** 8 in 2 sets, free, arising from hypanthium rim, dimorphic; filaments erect, (1–)2.5–3.5 mm long (opposite sepals) and (0.5–)1.3–2.5 mm long (opposite petals), yellow; anthers versatile, dithecal, 1.3–2.2(–2.5) × 0.5 mm, yellow, curved, longitudinally dehiscent; pollen yellow, shed singly (lacking viscin threads); **pistil** 1; ovary inferior, straight and ± cylindrical tapered base to tip, 14–25 × 0.6–1.2 mm, villous, 4-chambered, each chamber packed with a single stack of ovules; style (5.5–)7–9(–12) mm long, yellow, glabrous or sometimes pubescent near base; stigma at anthesis exerted above anthers, subspheroid-subcapitate, (0.7–)1–2 mm, papillate. **Fruit:** capsule, loculicidal, 4-valved, many-seeded, straight to wavy, sigmoidal, or 1-coiled, at maturity ± 4-sided, (12–)23–41 mm long, 1.4–2.5 mm thick at base, each valve with prominent midvein. **Seed:** ± ellipsoid slightly compressed side-to-side, 0.9–1.2 × (0.3–)0.5–0.7 mm, brown, acute to obtuse at base, obliquely truncate or obtuse at tip, faintly grooved along 1 edge, smooth. Early February–early June.

Native. Annual known most reliably on sandy flat near the coast but also found in sandy inland localities, e.g., China Flats (SH) and grassland openings in woodland or chaparral. *Camissoniopsis bistorta* has a well-developed basal rosette; large plants are decumbent, having several horizontal shoots radiating from the base, causing those plants to be wider than tall. This is the annual species of the genus with petals commonly seven or more millimeters long; there are often red spots at the bases of the petals, but populations and

individuals may lack spots. This is also the only annual species in which the large stigma is positioned above the anthers, never touching them. Pollen grains are single (not in tetrads), and viscin threads are not present.

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