

Sanicula L. SNAKEROOT, SANICLE

Sanicula bipinnata Hooker & Arnott, POISON SANICLE. Perennial herb, taprooted, rosetted, 1-stemmed at base, with ascending branches arising successively from canopy toward the base, ± erect, 20–50 cm tall; polygamous; shoots with ascending basal leaves and cauline leaves, glabrous, strongly aromatic like cilantro (*Coriandrum*); taproot vertical. **Stems:** ridged, to 5 mm diameter, with 5 ridges descending from each cauline leaf. **Leaves:** helically alternate, odd-1–2-pinnately compound with 2–4 pairs of lateral primary leaflets, leaflets deeply pinnately lobed or dissected, long-petiolate (basal leaves) and sessile (upper cauline leaves), without stipules; petiole in ×-section crescent-shaped at base becoming channeled approaching blade, to 135 mm long, > blade, not sheathing, winged at base, the wings to 40 mm long, each to 1.3 mm wide, pinkish to colorless; blade triangular to lanceolate or narrowly ovate in outline, 35–105 × 15–55 mm; rachis deeply and narrowly channeled; petiolules 0–3 mm long; primary lateral leaflets ascending, ± mirror images in matched pairs, 10–40 × 7–25 mm, blades asymmetric with 3–5 alternate lobes and 1–3 secondary leaflets at base (often basal lobe or secondary leaflet of lower primary leaflets elevated above the plane of leaf), terminal leaflet symmetrically 3-lobed or 5-lobed with opposite lateral lobes; secondary leaflets commonly 3-lobed, tapered at base, sessile or short-petiolulate on the lowest leaflet, the lobes ± obovate to oblong, dentate on margins with 1–3 teeth per edge having minute points, sinuses acutely angled, lobes obtuse to rounded with minute point at tip, lobes and leaflets pinnately veined with principal veins scarcely sunken on upper surface and visible but not raised on lower surface.

Inflorescence: modified compound umbel, terminal and axillary of cauline leaves, compound umbel on long peduncle, the terminal compound umbel typically having a terminal primary ray with only 1 umbellet + 2 peripheral axes (primary rays) each forming 3 umbellets at tip in a cymelike array (terminal primary ray sometimes 2-umbellate), the lesser compound umbels often 3-umbellate with a terminal and 2 peripheral rays each with only a terminal umbellet, umbellet headlike, hemispheric, 4–5 mm across, terminal umbellet opening first, in bud yellowish green becoming light yellow and then green in fruit, umbellet 8–15-flowered having 4–6 stalked staminate flowers and 3–10 sessile bisexual flowers, bracteate, glabrous; bract subtending peduncle leaflike, decreasing upward; peduncle stemlike, strongly 8-ridged, at anthesis 30–150 mm long, green, hollow; **involucre** subtending 2 peripheral primary rays of 2 equal bracts, free or fused on 1 side across node, leaflike, 20–45 mm long, petiole with conspicuous, wide-membranous wings to 15 mm long and wings terminated by the lowest, paired primary leaflets of the bract, each primary leaflet often 3-lobed; primary ray 6-ridged, at anthesis < 15 mm long increasing to 90 mm long in fruit; bract subtending secondary rays reduced from bract of involucre; secondary ray conspicuously 4-ridged; involucre of 6–9 bractlets subtending outer flowers and pedicels of umbellet, bractlets ± fused at bases, broadly lanceolate to oblong, 1–2 mm long (larger ones subtending bisexual flowers), green with scarious margins; pedicel of staminate flowers 0.3–1.5 mm long, of bisexual flowers 0–short increasing sometimes to 0.75 mm long in fruit. **Staminate flower:** radial, 1–1.5 mm across; **sepals** 4(–5), semicircular, 0.25–0.35 mm long, mostly green but whitish on margins, rounded or sometimes obtuse at tip, persistent; **petals** 4(–5), heart-shaped in outline with long acuminate tip permanently looped inward, 0.8–1.3 mm (1.7–2.3 mm long

including tip) \times 0.6–1 mm, greenish yellow to pale yellowish green with colorless base, with midridge on upper (inner) surface; **stamens** 4(–5), free, looped inward prior to anthesis but spreading at anthesis; filaments 0.7–1.4 mm long, yellowish; anther dorsifixed, dithecal, \pm oblong, 0.4–0.6 mm long, light to brilliant yellow, longitudinally dehiscent; pollen pale yellow; **pistil** aborted with 2-lobed, diminutive platform (stylopodium, stylar tissue) in center. **Bisexual flower:** bilateral, 1.5 mm across; **sepals** 5, semicircular, 0.25–0.35 mm long, mostly green but whitish on margins, rounded or sometimes obtuse at tip, persistent; **petals** 5, heart-shaped in outline with long-acuminate tip permanently looped inward, 0.8–1.3 mm (1.7–2.3 mm long including tip) \times 0.6–1 mm, greenish yellow to pale yellowish green with colorless base, with midridge on upper (inner) surface; **stamens** 5, free, looped inward prior to anthesis but then spreading; filaments 0.7–1.4 mm long, yellowish; anther dorsifixed, dithecal, \pm oblong, 0.4–0.6 mm long, light to brilliant yellow, longitudinally dehiscent; pollen pale yellow; **pistil** 1; ovary inferior, 2-lobed with diminutive, nectar-producing platform (stylopodium, stylar tissue) on top, bell-shaped slightly compressed side-to-side, green, bearing spreading, inward-hooked prickles, the hooks transparent, 2-chambered, each chamber with 1 ovule; styles 2, divergent, ascending, and exerted before anthesis, 0.7–0.8 mm long, green, becoming strongly recurved. **Fruit:** schizocarp, of 2 dry, 1-seeded halves (mericarps), mericarps half-obovoid, 2–3 mm long, with stout, radiating, hooked prickles on outer faces, the prickles 0.5–1 mm long and with bulbous bases; in umbellet staminate flowers often persisting among fruits. Mid-March–late-April.

Native. Perennial herb seldom observed in openings of chaparral, known from Agoura Hills in the vicinity of Cornell Road, growing with *Sanicula tuberosa* and *S. crassicaulis*. *Sanicula bipinnata* has a similar, cilantrolike odor comparable with *S. tuberosa*, but its leaves are less finely dissected and hence more similar to *S. arguta*.
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