Rubus ursinus Cham. & Schltdl., CALIFORNIA BLACKBERRY. Trailing shrub, winterdeciduous, clonal, thicket-forming and clambering, spinescent, forming adventitious roots where buried, much-branched, forming biennial, long-arching shoots produced from perennial base, 50–150+ cm tall; dioecious; shoots armed with sharp-tipped prickles along all axes and lower side of midribs, silky-hairy; sometimes forming adventitious roots where contacting wet soil. **Stems:** biennial stems from a perennial base, first-year stems (primocanes) to 300 cm long and normally unbranched and without flowers, second-year stems (floricanes) = short lateral branches on primocane and having terminal inflorescences, primocanes ridged aging cylindric, with 3 ridges descending from each leaf, green becoming purplish red and glaucous, floricanes cylindric, to 2 mm diameter, all stems with scattered, radiating prickles, pilose to tomentose or pubescent and on new growth forming \pm capitate glandular hairs aging as straight, radiating, sharp-tipped prickles along axes and major veins, the prickles 0.8–5.5 mm long, compressed side-to-side, with expanded elliptic bases oriented along long axis of plant organ. Leaves: helically alternate, in ranged mostly pinnately 3-foliolate (1-foliolate or 5-foliolate; if 1-foliolate 3lobed), petiolate, with stipules; stipules 2, fused to petiole, linear-lanceolate or linearoblanceolate to awn-shaped or linear, several–10 mm long, light green becoming reddish at tip, finely pubescent, mostly lacking prickles; petiole mostly cylindric but narrowly channeled on upper side, 21-48 mm long, flaring at base, short villous-pilose, with prickles but mostly < adjacent stems; rachis of 3-foliolate leaf 9–24 mm long, like petiole; petiolules 0–4 mm long; blades of leaflets widely lanceolate to ovate, $35-93 \times 20-45$ mm (lateral leaflets) and $65-112 \times 34-80$ mm (terminal leaflet) sometimes with short sublobe, rounded and somewhat asymmetric at base (lateral leaflets) to subcordate and symmetric (terminal leaflet) at base, dentate on margins with a mixture of large and small teeth, acute at tip, pinnately veined with principal veins slightly sunken on upper surface and raised and with short prickles on lower surface, finely pilose but denser on lower surface; blade of 1-foliolate leaf symmetrically broadly ovate in outline, $60-100 \times 50-80$ mm, subcordate to truncate at base, lateral lobes $32-77 \times 31-45$ mm and the terminal lobe $5-26 \times 10-21$ mm, dentate on margins, acute at tip. Inflorescences: functionally unisexual cymes, terminal or axillary, 1–6-flowered, bracteate, tomentose-villous, spinescent with prickles; peduncle 5–50 mm long, axes tomentose and armed with straight, radiating prickles like stem; bractlet subtending pedicel mostly 1-foliolate, flower sessile or with petiole to 2 mm long, lacking stipules, narrowly oblong to linear or linear-oblanceolate, $1-5.5 \times 0.6-1.1$ mm; pedicel 6–30 mm long, tomentose and with prickles, bracteoles absent. Staminate flower: radial, 20–36 mm across, appearing bisexual; hypanthium dish-shaped, ca. 5 mm diameter, green, tomentose, internally glabrous; nectary between inner stamens and base of receptacle stalk producing nectar; receptacle domed (torus); sepals 5, at anthesis spreading, ovate, $6-7.5 \times 5-6$ mm, with a narrow point 0.9–1.2 mm long at tip, surfaces where exposed densely white-tomentose, lower surface with red prickles and capitate glandular hairs; **petals** 5, obovate, $11-15 \times 7-8.5$ mm, white, tapered at base, entire, acute to obtuse at tip; stamens 70-90+ in several series, free, arising on hypanthium rim, dehiscing successively in outer series to inner series; filaments initially strongly hooked before being displayed for pollination, at maturity mostly ascending, unequal, 4–9 mm long within flower (inner ones short), white, slender at tip; anthers dorsifixed, dithecal, $1.2-1.4 \times \pm 0.9$ mm, cream blushed pink drying brown, longitudinally dehiscent (1 side);

pollen colorless; pistils 34-40, free, helically arranged on surface of torus, ca. 1 mm long, diminutive of pistillate pistils but abortive. **Pistillate flower:** radial. 13–24 mm across. appearing bisexual; hypanthium dish-shaped, ca. 3.5 mm diameter, green, tomentose, internally glabrous; **nectary** between inner stamens and base of receptacle stalk producing nectary; receptacle domed (torus); sepals 5, at anthesis spreading, ovate, $5-6.7 \times 2.5-3.8$ mm, with a narrow point 0.9–1.2 mm long at tip, surface where exposed densely whitetomentose, lower surface with red prickles and capitate glandular hairs; petals 5, elliptic, $8.5-12.5 \times 4-6.1$ mm, white, abruptly tapered at base, entire, acute to obtuse at tip; stamens 50–75, free, with small, abortive anthers and lacking pollen; filaments 1–2.5 mm long; **pistils** 34–40, free, helically arranged on surface of torus, 3.2–4.1 mm long; ovaries superior, asymmetrically ovoid to ellipsoid, green, outer side finely short-villous above midpoint, 1-chambered, each chamber with 2 ovules (1 diminutive); style erect or arched upward, cylindric but narrow at base, 2.2–2.9 mm long, greenish white, glabrous; stigma on 1 side decurrent from tip for ca. 0.4 mm, \pm 2-lobed and contorted (convolute). Fruit: aggregate fruit of 30-40 fleshy drupelets from 1 flower, in a hemispheric-oblong to conelike cluster, aggregate $7-8 \times 7-13$ mm; drupelets helically arranged, subspheroid to obovoid, mutually compressed below midpoint and fused to a fleshy receptacle, $4-5 \times$ 2.5–4 mm, at maturity black to blackish red (immature red), glabrous or with several inconspicuous hairs in pit by style; style \pm persistent; pulp (mesocarp) juicy, sweet, reddish; stone (endocarp, putamen) D-shaped to wedge-shaped, $2-3 \times 1.5-2 \times 1.2$ mm, tan but often stained darker from pulp, extremely hard, conspicuously netlike, ridged around edge. Mid-February-early June.

Native. Trailing shrubs occurring as clones throughout the range, commonly in shady habitats within or on the edges of southern oak woodland and riparian woodland. *Rubus ursinus* has arching, spinescent branches (primocanes) that initially form mostly trifoliolate leaves, and in the second year the flowering branchlets produce mostly three-lobed leaves. Flowers of this species are functionally unisexual, having both sexes but having one of the sexes abortive, so that a clone, often covering an entire patch, may be of only one sex. B. A. Prigge & A. C. Gibson