

Juniperus californica Carnière, CALIFORNIA JUNIPER. Shrub, evergreen, scale-leaved, densely branched on young growth with new shoot units $< 25 \times 1.2\text{--}1.7$ mm, in range to 400 cm tall; dioecious; shoots flexible, typically with leaves in 6 vertical rows (6-ranked; “cylindric”), having appressed leaves arranged shinglelike, on standard shoots with internodes $<$ leaves and a leaf slightly overlapping the next leaf in a vertical row and completely concealing stem, on rapidly growing shoots (whip shoots) with internodes often $>$ leaves and leaves commonly not concealing stem, glabrous, with resin canals, strongly aromatic. **Stems:** initially < 0.5 mm diameter, internodes greenish on whip shoots; bark gray, on young branches peeling in thin plates and fibrous on older stems. **Leaves:** whorled, uniformly arranged with 3 leaves per node, of different forms on 2 types of shoots, simple, sessile and firmly attached to stem, without stipules; blade of typical scale leaf ovate, $1\text{--}3 \times 0.8\text{--}1.5$ mm, fleshy, minutely papillate-jagged to short-dentate papillate on paler, thin margins, acute at tip (ca. 60°), \pm rounded on back, obscurely veined, below midblade having a darker, slightly raised, ovate resin gland generally lacking exudate on surface (unless damaged); blade of whip shoot suberect to ascending, awl-shaped, $2.5\text{--}4 \times 1\text{--}1.5$ mm, not fleshy, leaves of a whorl fused at base, slightly short-dentate papillate on margins, sharply acuminate with hard point at tip, \pm flat on back. **Pollen cone:** spikelike, terminal on scattered, newly formed winter shoots, ovoid to ellipsoid, $3\text{--}5.5 \times 2.2\text{--}3$ mm (when releasing pollen), of 14–17 pollen-bearing microsporophylls in whorls of 3 and pairs, in \pm vertical ranks; microsporophylls stalked (peltate) with surface broadly ovoid and slightly domed, to 2.2×2.4 mm, yellowish ochre to pale greenish or creamy pale yellow, with 4–8 pollen sacs on under surface of each microsporophyll; pollen light yellow to yellow. **Seed cone:** terminal on new winter shoots, shoot 3–4 mm long with several whorls of scale leaves, the uppermost whorl subtending cone widely spreading and green; at pollination young cone ca. 2 mm across, of ca. 5–6 distinguishable, fused, fleshy cone scales (scale-bract complex), the lowest set of scales \pm a whorl of 3, next set of cone scales = ascending pink and glaucous structure with 2 visible chimneylike projections (exposed micropyles of ovules) along edge of each fertile scale, upper scale arrangement appearing alternate, < 0.5 mm long; mature seed cone (1 year), berrylike and fleshy, 1–2(–3)-seeded, \pm spheroid or subspheroid (lopsided if 1-seeded), 6–12 mm, with tips of cone scales slightly projecting above wrinkled surface (mostly above cone midpoint), densely glaucous light gray or \pm light bluish, during first month purplish but aging reddish brown when glaucous outer layer wears off, sometimes with tip of a seed exposed (result of insect damage); flesh resinous. **Seed:** ovoid, $6.5\text{--}9 \times 4\text{--}7$ mm, almond brown, some with broad ridges, flattened on face opposing adjacent seed. Late January–Late February.

Native. Shrub (elsewhere also a small tree) occurring historically at Cornell Corners in Agoura Hills, now apparently reduced to a single staminate individual. *Juniperus californica* resembles cypress (*Hesperocyparis*) in vegetative condition with shinglelike, scale leaves on new shoots, but the leaves in the juniper are whorled, not opposite decussate. A pistillate individual is easily identified as *Juniperus* by having seed cones that resemble berries, mostly containing two seeds, so this genus does not form cones with scales that open to release seeds. The leaves of whip shoots of *J. californica* are longer than typical foliage leaves and more pointed, as in other, somewhat spinescent junipers. B. A. Prigge & A. C. Gibson