

*Cardamine* L. TOOTHWORT

*Cardamine californica* (Nutt.) Greene, MILK MAIDS, TOOTHWORT. Perennial herb, rhizomatous, fibrous-rooted, 1–several-stemmed at base, ascending to erect, in range 20–70 cm tall; shoots forming 1 leaf separate from upright shoot (rhizome leaf) + ca. 4 widely spaced cauline leaves, nearly glabrous; rhizome horizontal, 8–50+ × 5–10 mm, few-branched or unbranched, light brown. **Stems:** cylindric, (1.3–)3–5 mm basal diameter, basal stem radish-red arising from white subterranean axis, upper stem green, glabrous or with scattered minute hairs. **Leaves:** helically alternate, 3–5(7)-foliolate pinnately compound (simple), petiolate, without stipules; rhizome leaf to 200 mm long, cauline leaves progressively smaller, the petiole > 1/2 leaf length, subterranean portion white, the petiolules 10–25 mm long, shallowly channeled; petiole and petiolules of cauline leaves channeled and broadened; blades of leaflet widely ovate or roundish to lanceolate, 20–80 × 12–80 mm, ± asymmetric, thin, terminal leaflet the largest, oblique and cordate to tapered at base, wavy on margins with minute teeth near vein endings or wavy to serrate-toothed with short point, acute to obtuse at tip, palmately veined. **Inflorescence:** raceme, terminal and axillary, ± flat-topped with open flowers overtopping flower buds, initially minutely tomentose becoming glabrate, lacking bracts; pedicel ascending, cylindric, at anthesis 6–10 mm long increasing 2× in fruit. **Flower:** bisexual, radial, ca. 15 mm across; **sepals** 4, ovate, in range 4–4.5 mm long, at anthesis green with thin, pinkish margins, 3-veined from base, deciduous; **petals** 4, obovate without well-defined claw, in range 11–13 × 7.5–9 mm (much smaller when dry), base long-tapered, ca. 4 mm long, white with principal veins greenish and raised on upper surface, limb pale lavender to pinkish or white; **stamens** 6 in 2 whorls, free, dimorphic with outer 2 short and the inner 4 longer; filaments 3.3–4 mm long (outer stamens) and 5–6.4 mm long (inner stamens), green aging white; anthers dorsifixed, dithecal, ± 1.3 × 0.8–1 mm, greenish yellow, often horizontal pointed outward, of the inner stamens at same level of stigma, longitudinally dehiscent; pollen light yellow; **nectaries** at inside base of each sepal, 2 peglike and 2 with depressed center, green, persistent beneath fruit; **pistil** 1; ovary superior, ± cylindric, = long stamens, with 2 bulging valves (flattened when dry), valves translucent aging pale yellowish, rest of ovary green, 2-chambered, each chamber with < 10 ovules; style green; stigma capitate with sunken center, noticeably papillate, whitish before anthesis. **Fruit:** siliqua (silique), dehiscent, 2-valved, with septum flattened parallel to valves, 10–18-seeded, erect on ascending pedicel, beaked and linear, straight, in range with beak typically 40–45 × 1.5–2 mm, the beak 3–6 mm long, valves opening elastically by coiling from base; seeds aligned in 1 row but attached to septum along 2 placentae. **Seed:** oblong-hemispheric, 2.2–3 × 1.2–1.6 mm, ± dull brown; smooth. Mid-December–mid-April.

Native. Herbaceous perennial that is an early harbinger of the spring flora, at scattered localities throughout the range in rich humus of shady southern oak woodland growing in leaf litter beneath *Quercus agrifolia*. Flowers of *Cardamine californica* typically are showy and pale lavender to pinkish or white, and cannot be mistaken for any other species of mustard in the flora. If recognized, our populations fit *C. californica* var. *californica*.  
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