



10+ CALIFORNIA NATIVE PLANTS YOU SHOULD KNOW

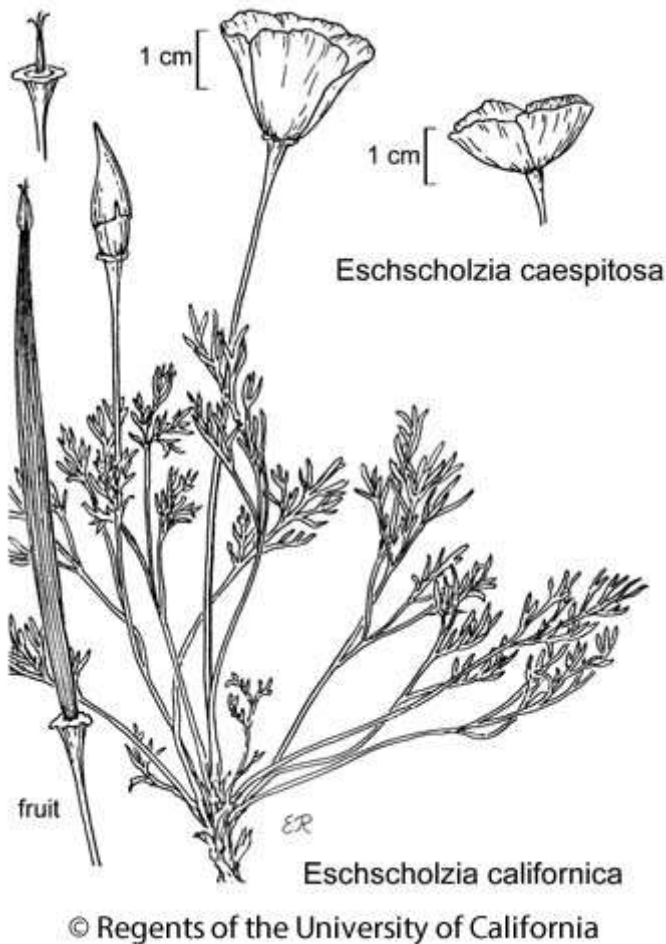
WELCOME to the Californian Area of the **UC Botanical Garden**. This tour introduces you to some of the native California plants that you will find when you are out and about in our local regional parks and wild areas, or that you might see in waterwise or wildlife-friendly gardens in the Bay Area. Some are endemic – restricted – to California, and others occur throughout the West. All contribute to the enormous diversity of plants in the Golden State, and to the well-being of the insects, birds, mammals and other animals that depend on them.

Look for round, blue numbered labels next to the plants described in the tour.



Starting below the Entrance Plaza, with the Julia Morgan Hall at your back, start on the main path down through the California Section.

Scattered about you will see:



1. CALIFORNIA POPPY

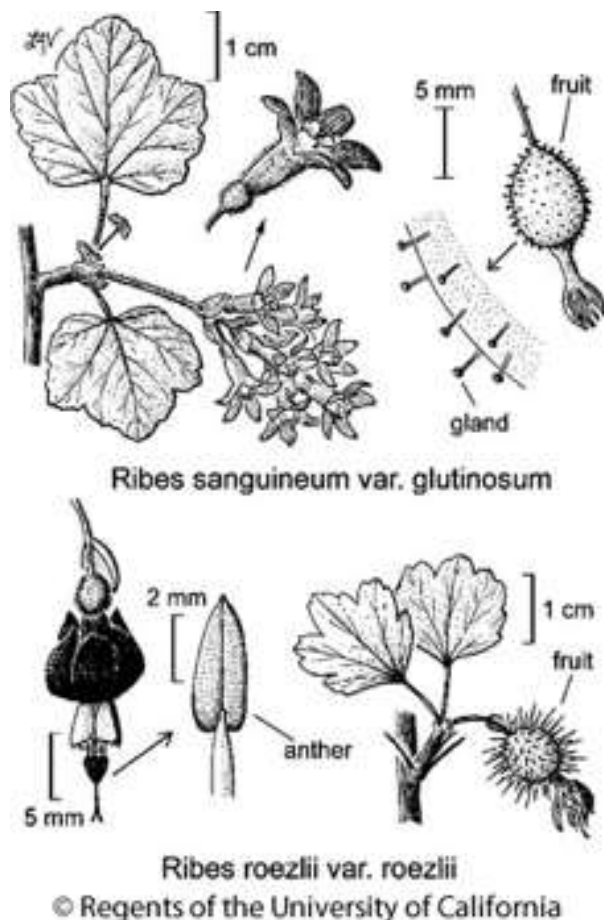
(Eschscholzia californica). This annual or perennial wildflower occurs in grassy, open areas, sometimes over large swaths, from the Pacific Northwest,

throughout California, to the Southwest.

The flower is most often a golden orange, and opens in fine weather during the day, closing at night; it produces very little nectar, but flowers are visited by bees and beetles for their copious pollen (it is not unusual to find small flower beetles in the bowl of the flower, covered in pollen). Though beloved here – it was selected as the state flower in 1903, and April 6 of each year is officially designated as California Poppy Day – it **is** considered invasive where it has naturalized in parts of South America, Australia and Europe.



Pass the rocky Alpine Fell-Field on your right and take the first set of steps down toward a creek. Just behind the backless bench you will find:



2. RED FLOWERING CURRANT (*Ribes sanguineum*).

There are 69 species and varieties of *Ribes* native to California, including currants and gooseberries. Red flowering currant is found along the coast and in the Coast

Ranges, often on north facing slopes, as far south as Santa Barbara Co. It occurs in several habitats including chaparral, forest and woodland. Flowers emerge around the same time as the leaves –in early spring – providing nectar for bees and hummingbirds. The fruits, described as “insipid” by a human, are enjoyed by birds,

and an estimated 85 species of moths and butterflies use it as a host plant.



Return to the main path and continue to the right. Here you will find many Ceanothus spp. Two large C. parryi flank the first bench on your right, under large oaks.



Ceanothus dentatus *Ceanothus divergens*

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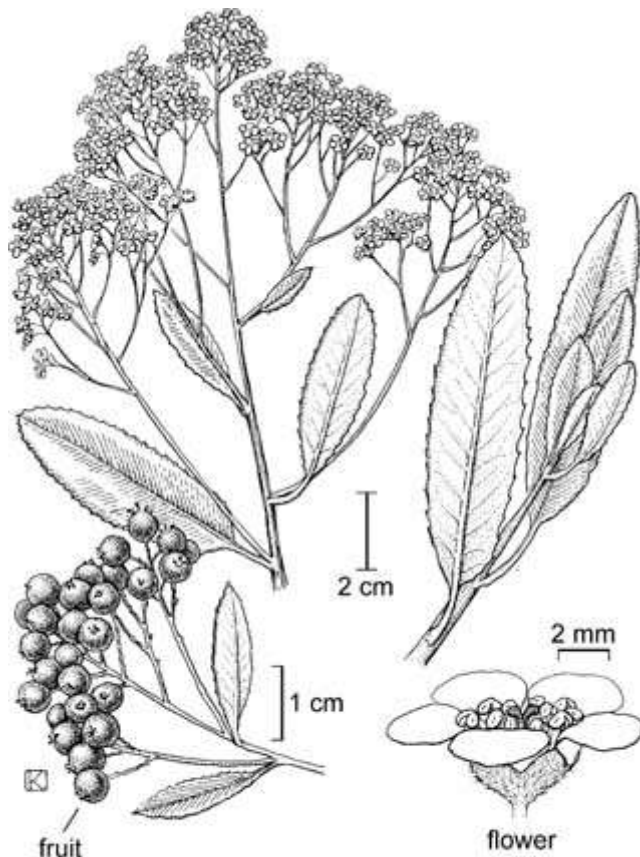
3. CALIFORNIA-LILAC (*Ceanothus* spp.)

There are about 55 species of *Ceanothus*, most native to the West Coast. In addition, there are many hybrids and horticultural varieties. They are widely found in California shrub and

chaparral communities. Evergreen, and quite variable in form (ground covers to tree-like shrubs) and in flower color (white to dark purple), they are primarily winter/spring bloomers and provide early season food for bees and butterflies. The seedpods are eaten by birds and small mammals. Approximately 70 moths and butterflies use California-lilac species as a host plant, including the California tortoiseshell butterfly and the gorgeous ceanothus silkmoth, with a wingspan of 3.5 to 5 in.



Further along the path, before the next bench on the right, is a large shrub under the oaks:



Heteromeles arbutifolia

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4. TOYON

(*Heteromeles arbutifolia*). Toyon is a large perennial shrub or small tree in the rose family, native throughout the western part of California and the Sierra foothills. It is a prominent component of the

coastal sage scrub, chaparral and mixed oak woodland habitats. Toyon is also known by the common names Christmas berry and California holly; the city of Hollywood was named for this plant. The fragrant flowers are visited by bees and other insects. Red berries are produced in large quantities, maturing in the fall and persisting well into

the winter and sometimes spring. Fruits are eaten, and seeds dispersed, by birds and mammals, including coyotes and bears.

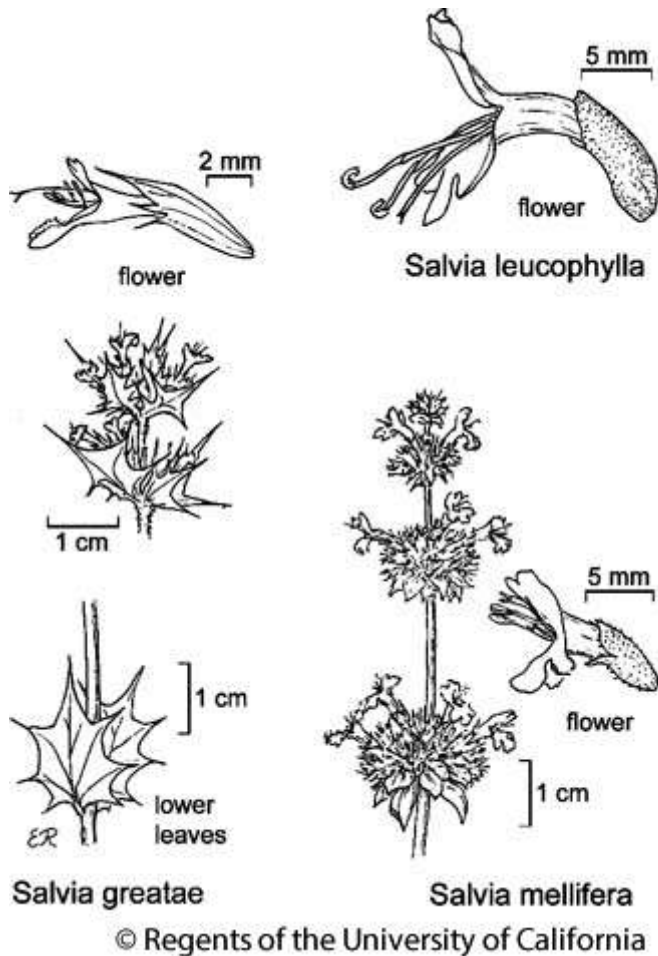


*Continue along the path, and just before the first flight of steps going up to your right, stop to admire *Ceanothus impressus*.*

This shrub is mobbed by bumble bees in the spring.



*Now continue along the main path and note a silvery shrub, *Salvia leucophylla* on your right.*



5. SAGE (*Salvia* spp.) *Salvia* is the largest genus in the mint family, with close to 90 species, subspecies and varieties in California. Leaves and flowers are

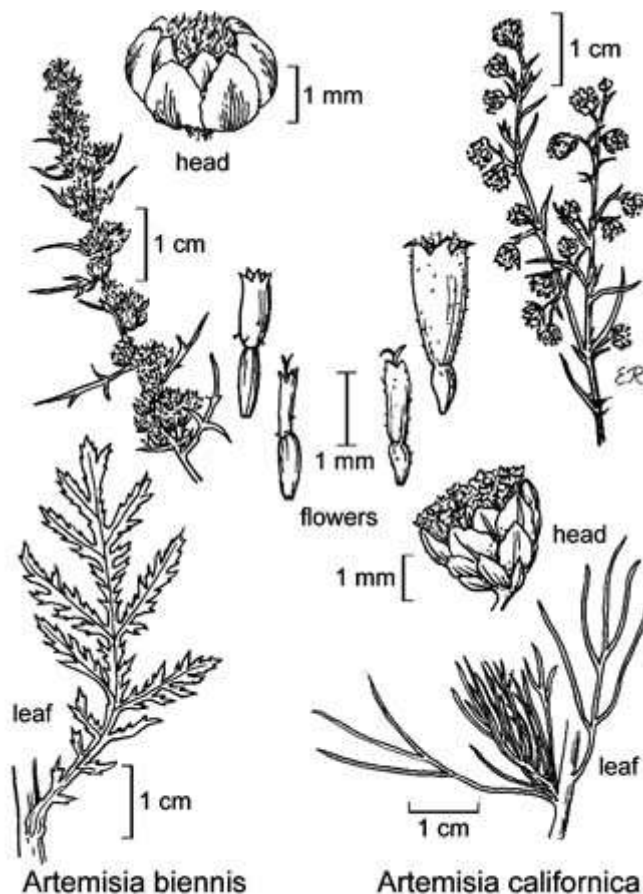
usually highly aromatic. Purple sage (*Salvia leucophylla*), endemic to the southern half of the state, is widely used in xeriscape gardening. Black sage (*S. mellifera*) found elsewhere in the Garden, is the most common sage in California, and one of the keystone species of the coastal sage scrub plant community in the southern half of the

state. Sage flowers attract bees, butterflies and hummingbirds; the seeds are an important food for quail and other birds. A variety of butterfly and moth species are thought to use sages as host plants.



As you continue on the main path look on the right for a long border of grey-green shrubs with

aromatic, thread-like lobed leaves:



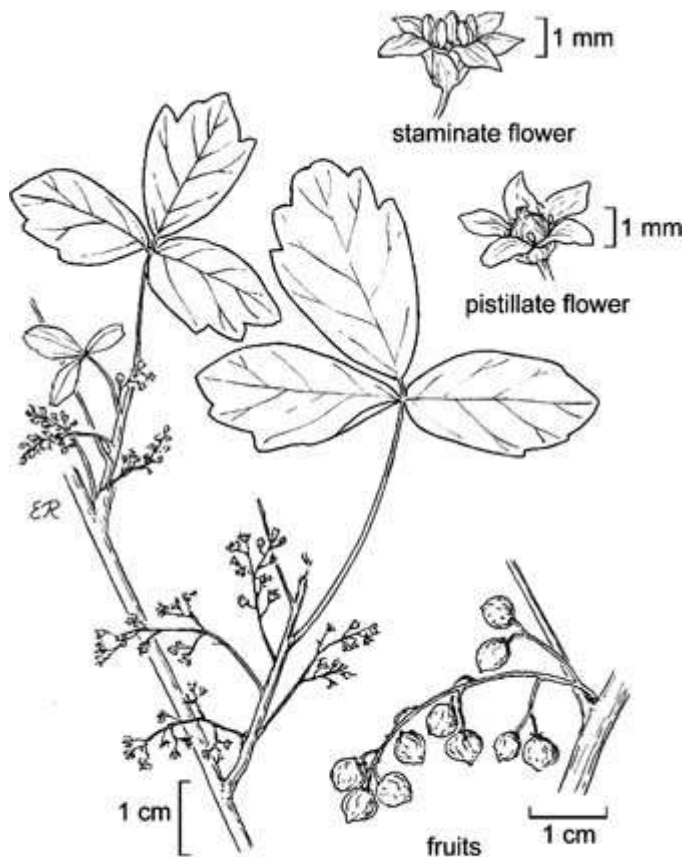
6. CALIFORNIA SAGEBRUSH

(Artemisia californica). A member of the sunflower family, this highly aromatic

shrub is endemic to California and northern Baja California. It is very drought tolerant, and is a foundation plant of the coastal sage scrub and chaparral communities. It appears to be chemically protected from herbivory and browsing. Nevertheless, California sagebrush serves as a host plant for up to 23 butterflies and moths, is host to gall-forming flies (look for fluffy balls on the stems) and is a preferred habitat plant of the California gnatcatcher, a threatened bird species.



Continue along the path until you see a few steps leading up to your right. On your left, a shrub with leaves that appear in threes is labeled DO NOT TOUCH – CAUSES RASH:



Toxicodendron diversilobum
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7. POISON OAK

(*Toxicodendron diversilobum*).

Known for its highly allergenic qualities — it contains an oil that causes a rash in 50-75% of adults — poison oak is considered one of the more

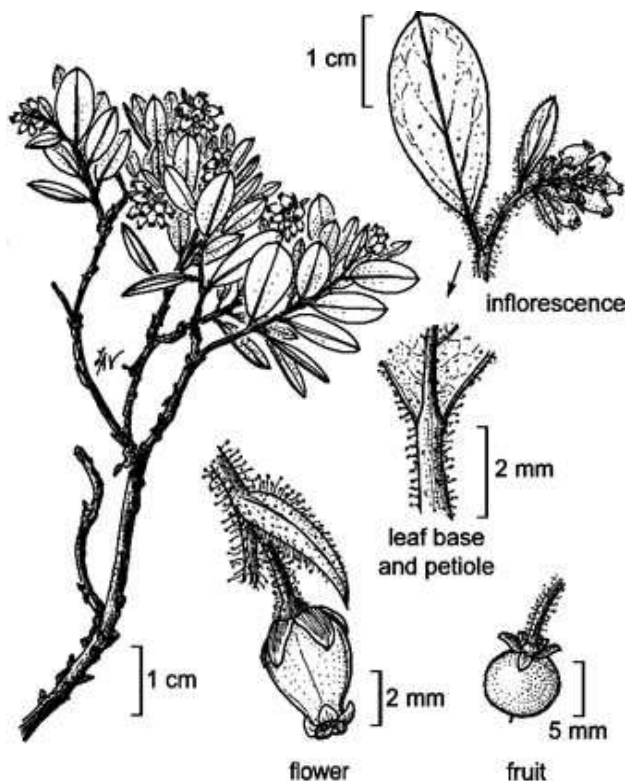
noxious plants in the state: Learn to recognize the plant with and without its leaves — it is deciduous. It is a myth that exposure will give you immunity, so avoid contact. However, native deer and squirrels, as well as other animals, feed with impunity on the leaves, which are rich in minerals. Birds use the berries for food, and the plant

structure for shelter. Poison oak is also used in habitat restoration projects where woodlands have been burned or removed, serving as a nurse plant for other species.



Continue along the path a short way until it turns right up a small rise to the end of the Oak Knoll.

The dominant plants here are the majestic coast live oaks (#10), but there are many chaparral plants as well:



Arctostaphylos klamathensis

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8. MANZANITA
(*Arctostaphylos* spp.) There are about 60 *Arctostaphylos* species native to California, plus

many more subspecies, varieties and horticultural selections and hybrids, including some of our most attractive winter-flowering shrubs. They are evergreen, mostly chaparral plants whose form ranges from groundcover to shrubs to small trees, usually with dramatic red trunks and stems. Some species flower as early as November and their small urn-shaped flowers provide an essential early-season source of nectar for native bees and hummingbirds. The fruits (manzanita means “little apple” in Spanish) are present February – September and are eaten by birds and mammals. Around 50 species of caterpillars are estimated to use manzanitas as host plants. The specimen in the center of the raised bed (23A), Bishop manzanita (*A. obispoensis*), is one of many species in the Garden.



Note a set of small steps on your left as you entered the knoll. At the top of the steps find

Arctostaphylos pajaroensis

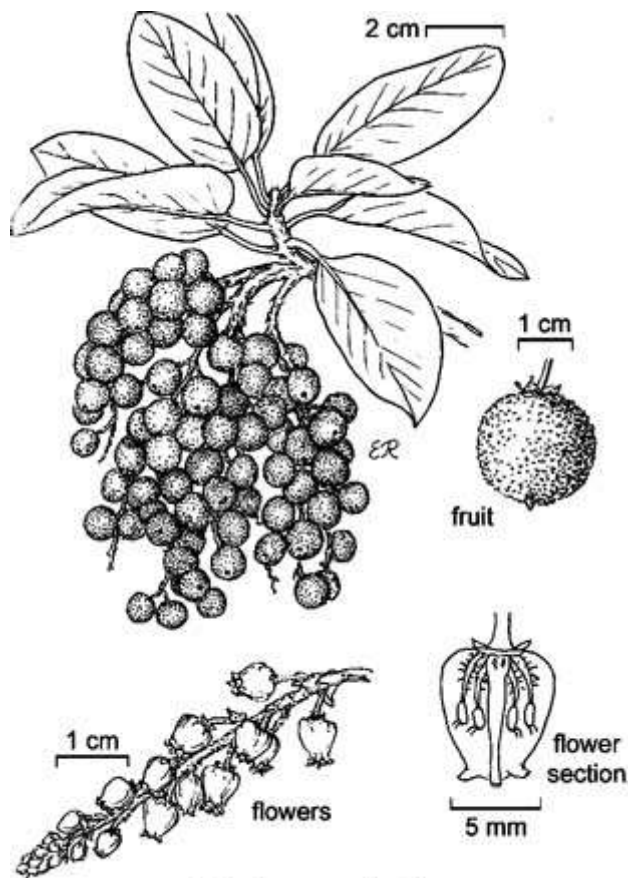
‘Myrtle Wolf’, named after a beloved volunteer in the Botanical Garden. If you wish to admire more manzanita species, wander down these steps, then return to the Oak Knoll to continue the tour.



From the steps, with the raised bed on your right, continue a few paces along the perimeter of the

knoll. On your left observe a small

tree with reddish chestnut-colored trunk:



Arbutus menziesii

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9. MADRONE

(*Arbutus menziesii*).

This is a broadleaf evergreen tree with rich orange-red bark that peels away on the mature wood.

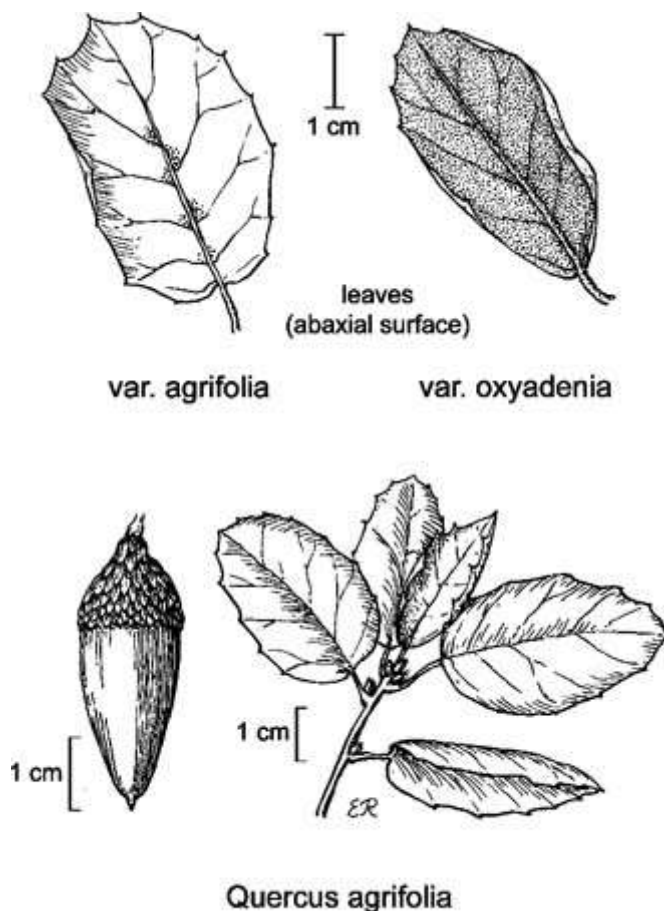
Madrone is sometimes referred to as the

“refrigerator tree”: the exposed wood

feels cool to the touch. It is found in the Coast Ranges but also scattered on the western slope of the Sierra Nevada. Though madrones grow slowly, usually to 9 – 21 meters (30-70 ft), they may reach a height of 27 meters (90 ft) under optimal conditions. Madrone is in the same family

as manzanita, and the small urn-shaped flowers similarly attract bees and hummingbirds; birds enjoy the fruit. Twenty-two butterflies and moths are estimated to use madrone as a larval host plant.

Be sure to look all about you to admire the coast live oaks that populate the Oak Knoll.



10. COAST LIVE OAK (*Quercus agrifolia*). The coast live oak is a large evergreen tree with thick twisting branches that grows mainly west of the central valley, as far north

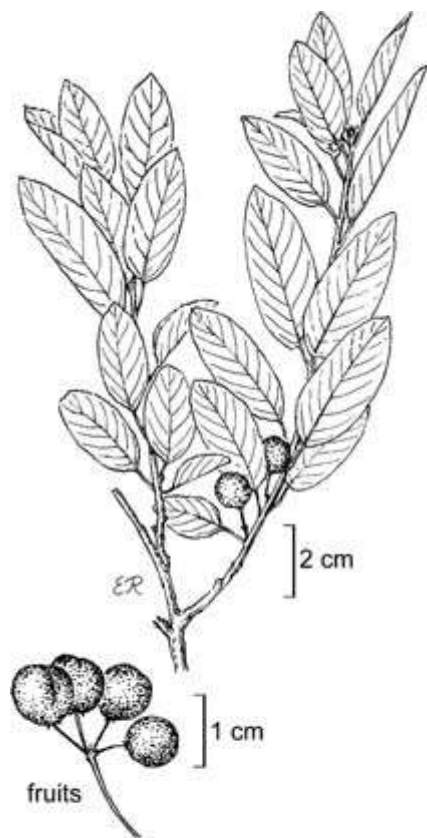
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as Mendocino County, and as far south as northern Baja California. It is one of the only California native oaks (of which there are many) that thrives in the coastal environment. It is an iconic East Bay tree: it is the “oak” in Oakland. Live oaks are threatened by Sudden Oak Death (SOD), a *Phytophthora* infection; ongoing research at UC Berkeley and elsewhere is addressing this grave disease. Live oaks support large numbers of butterfly and moth caterpillars (up to 122 species!), that in turn feed many birds and other vertebrates. As a staple food source, acorns have figured prominently in the diets of California Indians for countless generations.



*At the far end of the Oak Knoll
enjoy another Salvia (#5),
creeping sage (Salvia
sonomensis), an aromatic
mat-forming sage on the right flank of the
knoll.*

*Past the picnic tables, you may continue on
a small path to a narrow winding set of
steps, taking you back to the main path
below. Several larger madrones (#9) grow
along these steps. Alternatively, you may
retrace your steps to the other end of the
Oak Knoll to find the main path where you
entered. In either case, proceed to the
junction of the main path and the winding
steps. Across the main path from the steps
enter a smaller path and immediately make
a sharp right around a large pine. A short
way in, see a tall shrub on the right:*



Frangula californica

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11. COFFEEBERRY (*Frangula californica*). From Baja California north to southern Oregon this shrub occurs in oak woodland, coastal sage scrub and chaparral habitats. Some plants are estimated to be quite long-lived, from 100-200 years. The plant is prized most for its berries which turn red, then purple and finally black over the summer. The berries contain seeds that resemble coffee beans, hence the common name. Foliage and fruit are food for wildlife including deer and bears, as well as migrant and resident birds. Coffeeberry is fed on by the caterpillars of an estimated 23 species of butterflies and

moths. There are a number of horticultural varieties, as these shrubs are enjoyed for their beauty as well as for their value to wildlife.



Turning back where you have just come from, continue to the first junction and bear right through the serpentine area.

Serpentine soils are found sparsely throughout California (associated with tectonic activity), accounting for about 2% of the state's soil surface area. The mineral content and other characteristics of this soil are very challenging to plants, but about 10% of California's endemic plant species are adapted, and restricted to, serpentine soils. Walk through and notice the

gray-green serpentinite, the state rock, and the many red dots on labels (indicating rare or endangered species). This is a unique plant community that can be found in patches around the Bay Area.



As you leave the serpentine area, take the middle path back toward the Garden entrance. You will be flanked by many manzanitas (#8) on both sides, Behind a bench on the left, admire more specimens of Salvia leucophylla (#5).

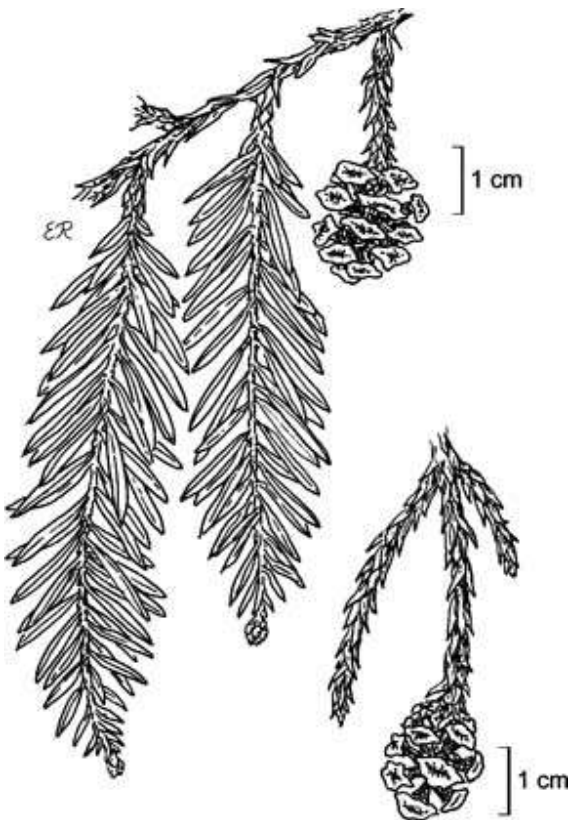
Follow the path, ducking under a large manzanita and then a grape arbor. Make a right in front of the small pools featuring cattails and tules. Continue on this slightly meandering path until you get to the paved road; turn right. You will now see a large

tree at the far end of the bridge over Strawberry Creek:

12. CALIFORNIA BUCKEYE (*Aesculus californica*). This tree with spreading branches is related to both the European and Indian horse chestnuts, but this species is endemic to California. It produces the typical racemes of fragrant white flowers that provide an important nectar source in late spring to native bees and butterflies. The nectar is toxic, however, to European honeybees. The tree drops its leaves in late summer, an adaptation to reduce water loss in our dry summer climate, leaving the dramatic pear-sized fruits, each usually containing one large shiny brown seed, on bare branches. Up to 11 butterfly and moth caterpillar species are thought to feed on this tree.



Walk back along the road to the Entrance, passing the California Desert bed on your left. Check in at the Entrance Kiosk to get the code for the locked gate to the Mather Redwood Grove, accessed from the lowest level of the parking lot across Centennial Drive. As you enter the grove, you will see:



Sequoia sempervirens

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13. COAST REDWOOD

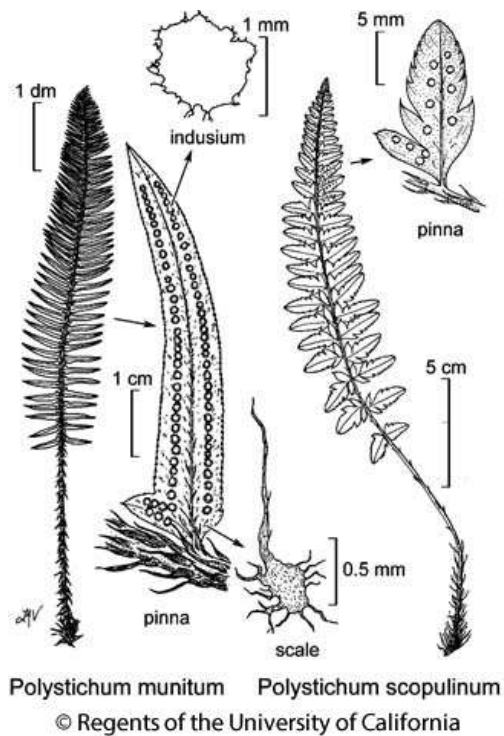
(Sequoia

sempervirens). This is one of two sequoias in California, both with restricted ranges. Not to be confused with their cousins, the giant sequoias of the Sierra, coast redwoods

include the tallest – up to 115 meters (380 ft) – and among the oldest – up to 2,200 years – living things on Earth. They are native to coastal California and the southwestern corner of Oregon. This region is characterized by wet winters and cool, foggy summers. Fog drip, and fog itself (shown to be absorbed directly by leaves) is an important source of water for this tree. Though redwoods make small cones that contain seeds, they reproduce most readily by stump sprouting.



Look around the understory for some large ferns:



14. WESTERN SWORD FERN (*Polystichum munitum*). This common evergreen fern is native to western North America, where it is one of the most abundant ferns occurring along the Pacific coast from Alaska to southern

California; it is also found in Idaho, South Dakota and Montana. It is a common understory plant of moist coniferous forests, including redwood forests. Ferns do not make seeds; instead they produce spores, grouped into structures called *sori* (plural of *sorus*) in characteristic patterns. The sori of the western sword fern are round, and grouped in two rows on the underside of the leaves.