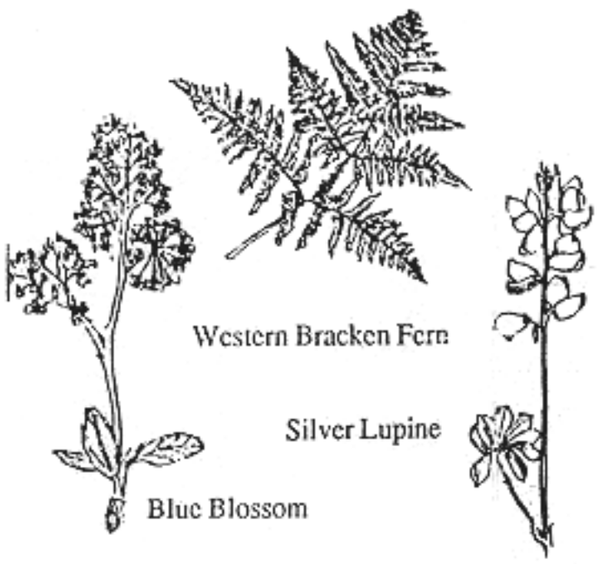


9 The **Monterey Pine** (*Pinus radiata*) you see here is not native to these hills. Perhaps it was planted, or escaped from a garden. The needles come in bundles of three or, sometimes, two. Notice that the dark russet-brown cones are lopsided. They need high heat, usually a fire, to release their seeds. The young trees easily sprout through the ashes, and grow well in the area cleared by the fire. This pine is considered a fire hazard, because it is very flammable.

To the left of the Monterey pine is a **Blue Blossom** tree (*Ceanothus thyrsiflorus*). It also grows as a large bush, and is an important food for deer.

10 **Coyote Bush or Chapparal Broom** (*Baccharis consanguinea*). This erect, evergreen shrub grows 2 to 10 feet high, and is common in the Coast Range hills and valleys. The leaves are dark green, coarsely and irregularly toothed. From August to October it has white flowers that have a carrion-like odor at some stage of their development. Each plant has only male, or only female flowers.

Growing at the base of the coyote bush you can see a **Silver Lupine** (*Lupinus albifrons*). It has very leafy branches and masses of blue or purple flowers from March to July. The fruit is a pod.

Look for the **Western Bracken Fern** (*Pteridium aquilinum*) after you cross the fire road. It grows one to four feet tall and loses its leaves in winter. Its spores grow all around the margins on the underside of the leaves. Early settlers used the

California Hazel

broad fronds for thatching cabin roofs. Some parts of this plant are considered poisonous.

11 **California Hazel** (*Corylus cortuna californica*). It produces the commercial filbert or hazelnut. Squirrels and birds like the nuts too, and eat them as quickly as they ripen. This plant loses its leaves in the fall. If you are here when it is in leaf, feel how velvety the toothed leaves are.

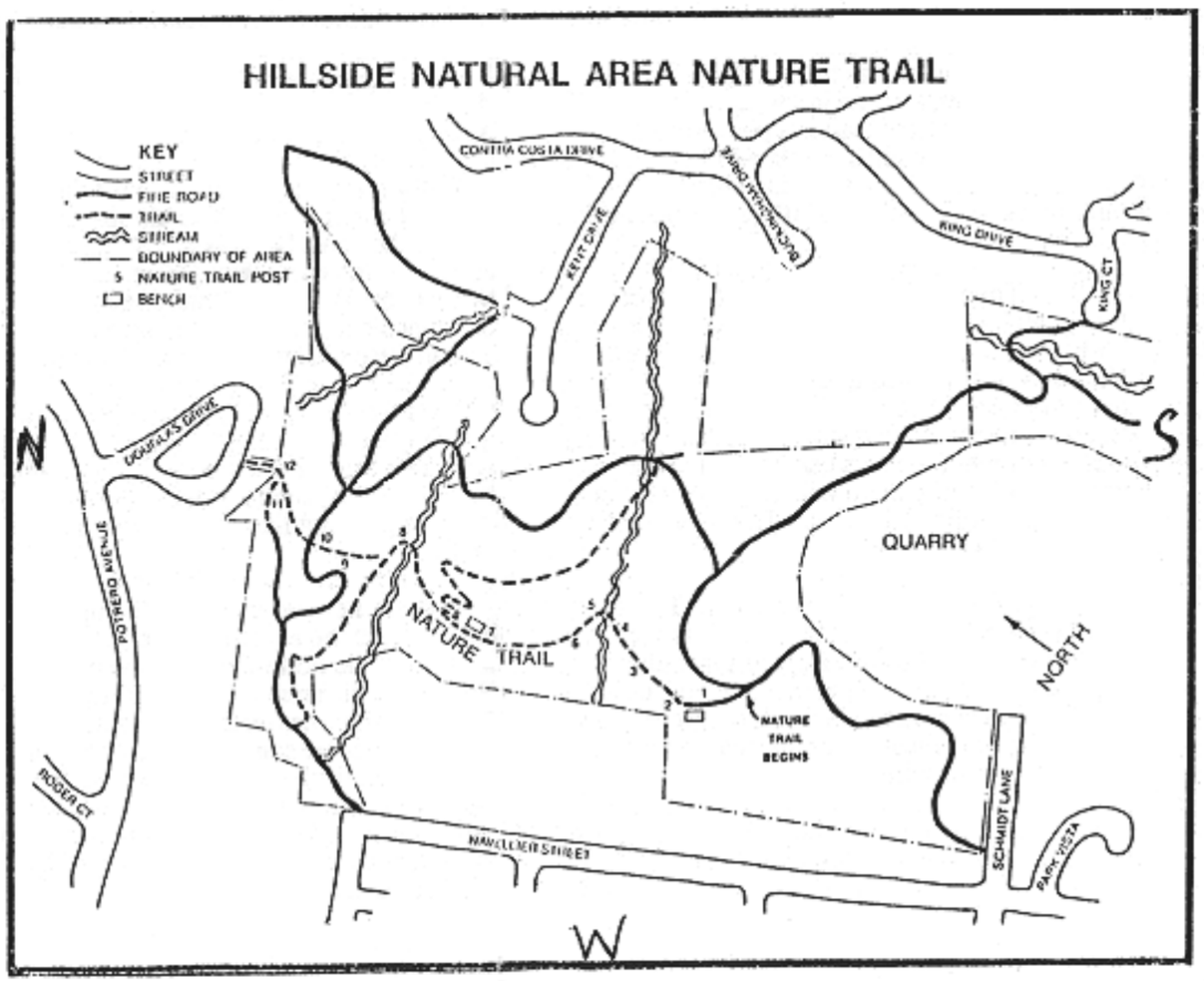
Yet another kind of fern is the **Western Sword Fern** (*Polystichum munitum*). It is growing on the slopes below the trail near this post; so is the coastal wood fern, which you saw at Post 4. Look at the sword fern carefully to see how it got its name. Each little leaflet has an upward projection at its base that resembles the hilt of a sword, and tapers

Bush Monkey Flower

to a sharp point.

12 **Bush Monkey Flower** (*Mimulus guttatus*) is growing all over the hillside above you. The bushes are 2 to 5 feet tall, with dark green leaves, somewhat sticky underneath. They are beautiful when in full bloom. Some of the orange to yellow, funnel-shaped flowers can be found most of the year. Do they look like monkey faces to you?

This pamphlet was adapted by Marc Dea (1990) from a more detailed guide prepared by West Addison (1978) as part of their respective Eagle Scout projects for BSA Troop 104 of El Cerrito.



HILLSIDE NATURAL AREA

NATURE TRAIL

The fastest way to get to the beginning of the nature trail is to walk up to the fire road which begins at Schmidt Lane. The nature trail may also be reached from the opposite end between 1520 and 1524 Douglas Drive. See the map for other connecting trails.

At the sides of the trail there are numbered posts. Under the corresponding number, this pamphlet tells you what you can see and do.

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1 **Blue Gum** (*Eucalyptus globus*). This aromatic tree was brought to California from Australia more than 100 years ago. It is evergreen, with bark that sheds in long strips leaving a smooth trunk. The tree can grow to 200 feet. New growth (seedlings and branches) has silvery-blue rounded leaves growing opposite each other. The mature leaves are green, sickle-shaped, and leathery. The ripe fruit is a hard, woody, cone-shaped, capsule about one inch in diameter.

2 **Poison Oak** (*Rhus diversiloba*). "Leaves of three, let them be!" Contact with poison oak (even the dry leaves and stems) causes an itchy skin rash in most people. Learn to recognize the oak-like lobed leaves that grow in groups of three at the ends of each branchlet. Poison oak grows as a bush in clumps or thickets, or as a woody vine climbing up the trunks of other trees. We shall see examples of such vines later. In the spring the leaves are green and from one to six inches long. They turn a beautiful brilliant red in the summer, and later fall off.

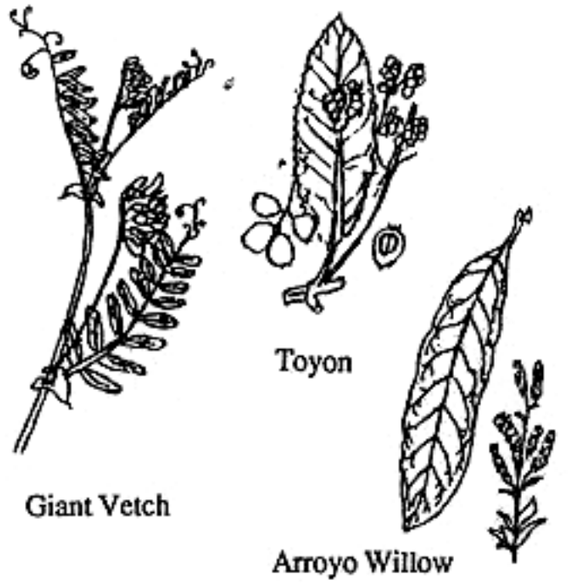
Poison Oak

California Blackberry

Himalaya Berry

Coastal Wood Fern

Coast Live Oak



Giant Vetch

Toyon

Arroyo Willow

California Honeysuckle

Blue Elderberry

3 Look carefully at the **California Blackberry** (*Rubus vitifolius*) growing low on the ground all around this area. It too has "leaves of three," but it's not poison oak! Unlike poison oak, it has thorns that grow thickly on its stems. California berry grows as a trailing vine and can form formidable thickets. The ripe, black fruit is about one-half inch long and good to eat.

The **Himalaya Berry** (*Rubus procerus*) is similar to the California blackberry, but it is not a native plant. It has large curved thorns that are quite different from the straight, slender thorns of the California blackberry. Also, its leaflets are in groups of five, while the California berry's are in groups of three. The berries make a tasty pie.

You have just come to a grove of trees where the **Coast Live Oak** (*Quercus agrifolia*) is the dominant species. It grows to 75 feet, has long crooked branches and a broadly rounded crown. The leaves look dark green and shiny from above, lighter and slightly downy from below. They are downwardly curved and have prickly edges. See if you can find an acorn. Fox squirrels eat these acorns.

4 The **Coastal Wood Fern** (*Dryopteris arguta*) is growing all over this slope. It is an evergreen, and its fronds grow 1 to 1.5 feet long. Look for the sori on the undersides of some of these fronds. The sori contain spores, which act like seeds. They do not produce new ferns directly, however. Instead, they give rise to an inconspicuous plant called prothallus. The prothallus then produces through fertilization a new fern. This process is known as "alternation of generations," and all ferns reproduce this way.

Giant Vetch (*Vicia gigantea*) is growing on the slope of the hill. It is usually found in moist places, and may grow as long as 15 feet. The leaves alternate on the stem, and end in a tendril. Each leaf is composed of a pair of leaflets opposite each other. The flowers are reddish purple and have a worn-out look. The seeds are contained in a pod, which turns black when ripe, as does the entire plant when it dries.

5 **Toyon** (*Heteromeles arbutifolia*) or California Holly. This evergreen grows as a large bushy shrub, or as a small tree up to 25 feet tall. You have just walked under one that is growing over the trail. Look at the glossy, dark green, leathery, finely toothed leaves. In June and July clusters of white flowers can be seen. From November to January there will be large clusters of red (rarely yellow) berries. Toyon is used for Christmas decorations.

Arroyo Willow (*Salix lasiolepis*). This small tree is at the left side of the trail. It is the most common willow in the Bay Region, typically growing on a stream bank, sometimes reaching up to 30 feet. The leaves are 2 to 5 inches long, green above, but whitish underneath. For this reason the tree is also called white willow.

6 **California Honeysuckle** (*Lonicera Hispidula*). This vine is growing on the tree right by the post. Its lower portion is just a woody trunk, easily recognized by the shredded look of its bark. It can grow up to 30 feet, but needs something to support it. Look up high to spot the evergreen leaves at the top. In spring and early summer, there are pink or purplish flowers; in fall, shiny red berries. Smaller versions of this plant, growing on the ground or climbing in bushes, may be seen at other places along this trail.

California honeysuckle is one of three different kinds of vines or vine-like shrubs growing here among the coast live oaks. We have already encountered the other two: poison oak (Post 2) and toyon (Post 5). Look for more examples of poison oak vines here. Note the aerial rootlets the vine uses to attach itself to the tree as it climbs.

Just across the trail from the post there is a toyon growing as a vine. Can you recognize this plant that you saw growing as a tree at the last stop? Here, because it is shaded by the larger oak trees, the toyon is growing like a vine twisted around their trunks.

You are now on the south-facing slope of the hill. Across the stream, where you have already walked, is the north-facing slope of another hill. Notice the difference between these two slopes. The north slope has many more smaller plants, and is steeper than the south slope. This is typical in the northern hemisphere, because slopes facing north are more protected from the sun and retain moisture better. On the drier south slopes, plants do not grow as well, and are more easily destroyed by fire.

There is another difference. The north slope is steeper because there is less erosion with more plants and more roots to protect and hold the soil.

7 **French Broom** (*Cytisus monspessulanus*) is a native to the Canary Islands that has become naturalized in California, where it is now a pernicious pest. Its leaves are divided into three leaflets. In spring, it is covered with small, bright yellow, fragrant flowers. Later, downy pods form.

Several specimens of **Coast** or **California Sagebrush** (*Artemisia californica*) are growing along the trail here and just ahead. This dense and bushy shrub, very common on the exposed slopes and dry hills of the Bay Area, grows 2 to 5 feet high. Leaves are threadlike and greyish. Crush one in your fingers and smell it. It has a strong sage-like odor.

Ahead on the right side of the trail, coast live oak is growing as bush rather than as the tree you saw at Post 5. This is because deer eat it back and don't give it a chance to grow taller. Once it manages to grow above where the deer can reach, it will grow into a tree.

8 **Blue Elderberry, or Blueberry Elder** (*Sambucus mexicana*). This plant, which extends over the trail, can grow either as a shrub or as a small tree. The leaves grow opposite each other and have 3 to 9 leaflets (usually 5). Small whitish flowers grow in clusters in early summer. The blue-black berries are used for making jelly, wine, and pie.