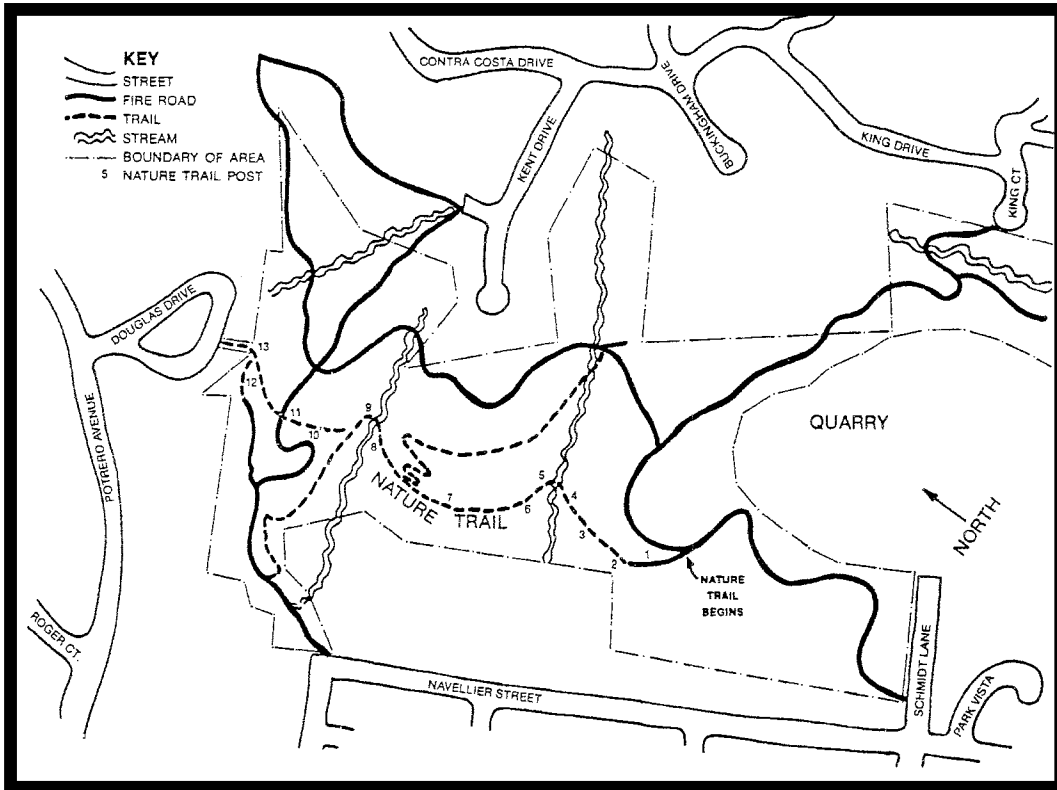


HILLSIDE NATURAL AREA NATURE TRAIL



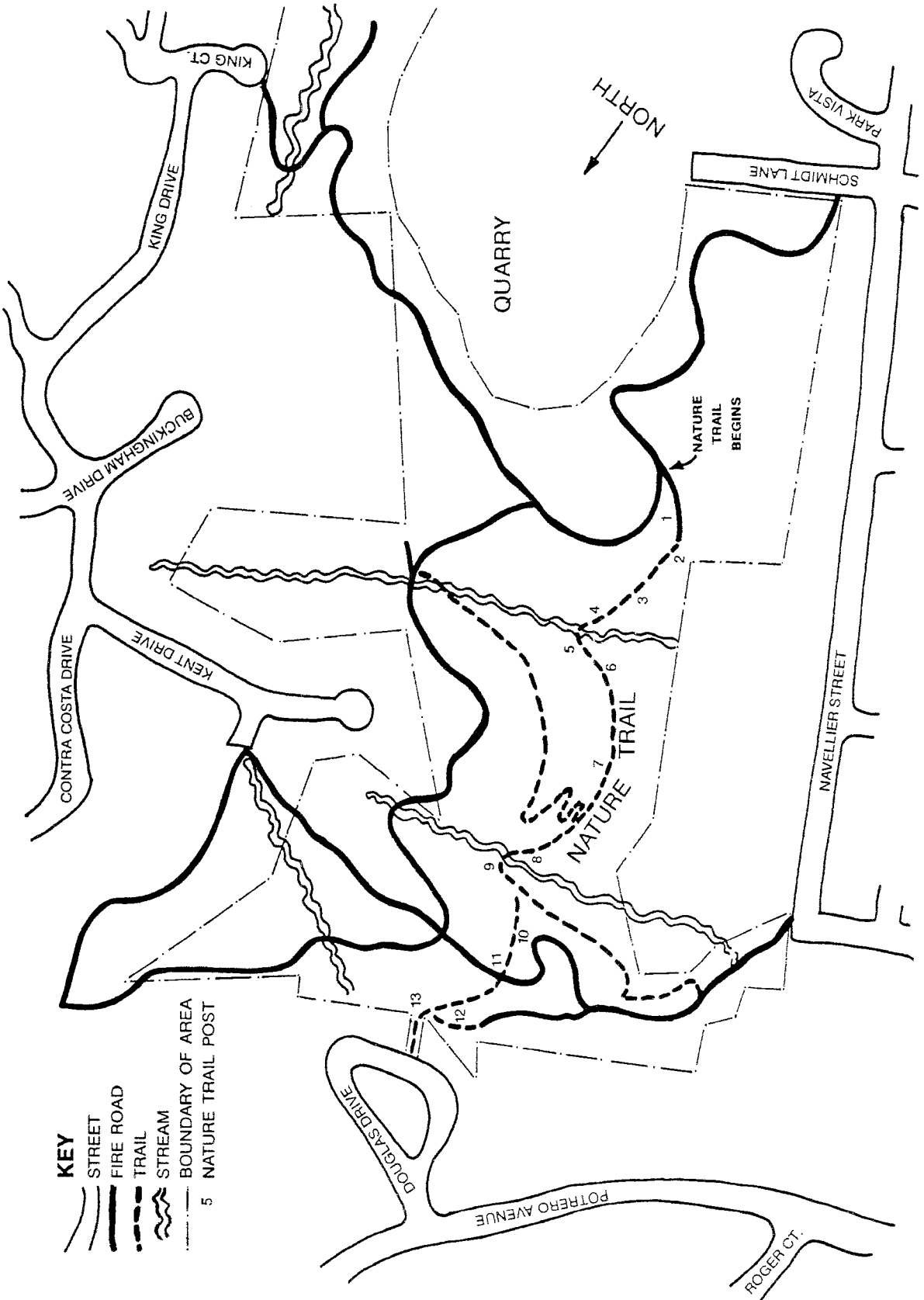
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CALIFORNIA

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HILLSIDE NATURAL AREA NATURE TRAIL

- KEY**
- STREET
 - FIRE ROAD
 - TRAIL
 - STREAM
 - BOUNDARY OF AREA
 - NATURE TRAIL POST



A GUIDE TO THE HILLSIDE NATURAL AREA NATURE TRAIL
of El Cerrito, California

By West Addison of Boy Scout Troop 104
(Prepared as part of his Eagle Service Project)

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

At the sides of the trail there are numbered posts. When you come to one of these posts, stop and read the information in the pamphlet under the corresponding numeral about what you can see and do at that point. In addition, you will find general information throughout the pamphlet that does not pertain to any particular place on the trail, but rather to the trail as a whole. (For example, animals you might see anywhere along the trail are listed in this way.)

GENERAL INFORMATION

MAMMALS

Here is a list of mammals that one would expect to live in the area of this nature trail. If you come in the evening or are lucky, you might see some of them. You can look for signs of mammals, such as tracks, droppings, and fox squirrel nests in trees.

field mouse	pack rat	mole	raccoon
white-footed mouse	fox squirrel	cottontail rabbit	gray fox
house mouse	gopher	skunk	deer
			opossum

PLANTS

SWEET FENNEL, COMMON FENNEL, ANISE *Foeniculum vulgare*

This plant has waxy-blue, cane-like stems, and grows three to eight feet tall. The leaves are divided into threadlike segments. Sweet fennel has yellow flowers in summer. Crush part of a leaf in your hand to smell the strong, sweet, licorice odor. There is a lot of sweet fennel growing along the fire road which you may have walked up to get from Schmidt Lane to the nature trail. Sweet fennel has been naturalized from Europe.

WILD OAT *Avena fatua*

This grass, which was brought here from Europe, covers the dry hillsides on this nature trail. The seeds of this plant are an important food for birds in fall. The cultivated oat, which is closely related to the wild oat, is grown by man for food. The wild oat has crowded out the native grasses.

SOAP PLANT, INDIAN SOAP, WAVY-LEAF SOAP PLANT, AMOLE *Chlorogalum pomeridianum*

Try to spot soap plant on the dry, grassy hillsides. It has a cluster of long (6 - 24-inch), narrow, wavy-margined leaves at ground level. These leaves appear after the first rains of the season, but deer love to eat them. The plant also has small, star-like flowers from March to July that open in the late afternoon and close in the morning. The stem may be six feet or more tall, is the large bulb underneath the ground from which the rest of the plant grows.

The bulb has a mass of coarse brown fibers on top of and around it, which you may see poking up above the ground where it has been worn away. The bulb has been used for many things by Indians and outdoorsmen. When the fibers are removed, the bulb makes a very good soap. The Indians boiled or baked the bulbs and ate them, and crushed bulbs were used as an antiseptic for sores and ulcers, and as a diuretic and a laxative. Mashed bulbs put in streams stupefied fish, thus making them easier to catch, and when roasted, a juice, which the Indians used as a glue for arrow feathers, comes out. The coarse fibers also had uses, such as for making small brooms and stuffing primitive mattresses.

CALIFORNIA POPPY Eschscholzia californica

The California poppy is the state flower of California. You can spot it from February or March until as late as October or November by its golden-orange bowl-shaped flowers. (The flowers are pale yellow in late summer.) The plant grows in open, sunny places. The flower closes up at night, but opens when the sun shines on it. Look underneath the four petals. Do you see the pink disk that they are set on? See if you can find an unopened bud. The buds are first held in a cone that looks like a dunce cap and is called a calyx. The calyx breaks off at the base and is pushed off by the flower when it opens up. Try gently pulling off one of the caps and watch the tightly curled petals unfold. Also, look at the interesting and unusual lacy leaves.

The bright orange flowers of the California poppy covered the hills so thickly that early explorers called California "The Land of Fire". Some hills that were covered with the brilliant flower were used by early sailors as landmarks, because they could be seen so far out at sea. Indians ate the leaves and stems of the plant after preparing them in a special way. The Indians used to put a small piece of the root in the cavities of their teeth when they got a toothache. A drug made from the California poppy is used for headaches.

BIRDS

Below is a short list of birds you are likely to see while walking on this nature trail. The list is organized by where you would probably see the birds and what they would probably be doing when you see them. More birds can be seen in spring and fall, when they migrate through this area, and there are more birds in winter than in summer, because some birds that migrate from the north spend their winter here.

IN THE AIR ABOVE

Catching insects in the air: rough-winged swallow (in summer)

Soaring high overhead: Red-tailed hawk, Cooper's hawk, sharp-shinned hawk, gull and other sea birds (riding updrafts to get over hill)

IN OPEN, GRASSY AREA

Feeding on seeds from grass (in fall, when seeds are ripe): house finch, sparrow

IN WOODS

Feeding on ground: brown towhee, rufous-sided towhee, wren-tit, white-crowned sparrow (in winter), fox sparrow (in winter), junco (in winter), mourning dove (also in lower branches of trees)

Lower trees or margins: scrub jay, chickadee, flicker, bush-tit, humming bird

High trees within woods: owl, downy or hairy woodpecker, nuthatch

Flying out from trees: flycatcher

For the serious bird watcher, it is interesting to note that more than 72 varieties of birds have been observed in the Hillside Natural Area. We include below a list prepared by Jean Eagle of El Cerrito of birds she has personally indentified in the quarry hill eucalyptus grove region and in the wooded ravines of the Area.

YEAR-ROUND RESIDENTS

Turkey vulture	Plain titmouse	Brown-headed cowbird
Red-tailed hawk	Bush-tit	Purple finch
Band-tailed pigeon	Red-breasted nuthatch	House finch
Mourning dove	Brown creeper	Pine siskin
Great horned owl	Wren-tit	Goldfinch
Anna's hummingbird	House wren	Lesser goldfinch
Allen's hummingbird	Bewick's wren	Rufous-sided towhee
Red-shafted flicker	Mockingbird	Brown towhee
Downy woodpecker	California thrasher	Oregon junco
Steller jay	Robin	White-crowned sparrow
Scrub jay	Starling	Song sparrow
Chestnut-backed chickadee	Hutton's vireo	
Sparrow hawk	Audubon warbler	English sparrow

SPRING-TO -FALL RESIDENTS

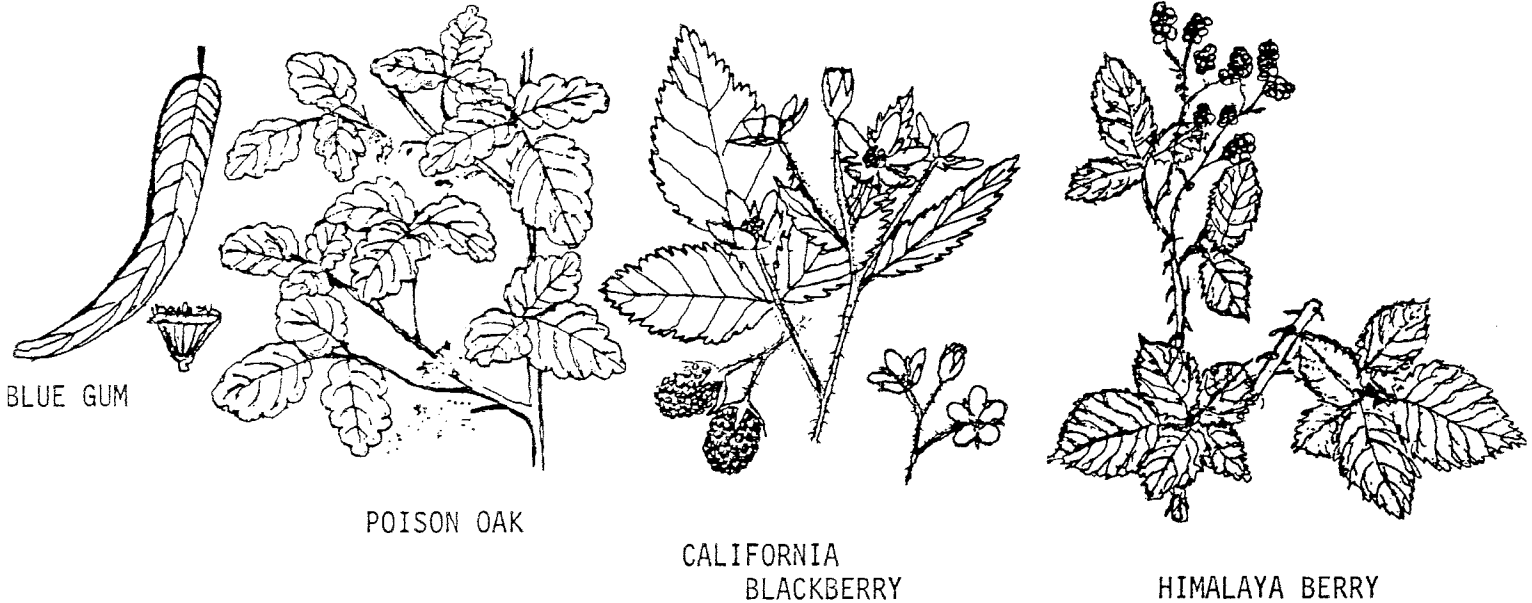
Western flycatcher	Swainson's thrush	Wilson's warbler
Western wood pewee	Warbling vireo	Bullock's oriole
Olive-sided flycatcher	Yellow warbler	Western tanager
Tree swallow	Macgillivray's warbler	Black-headed grosbeak
Cliff swallow	Orange-crowned warbler	Lawrence's goldfinch

FALL- TO - SPRING RESIDENTS

Rufous hummingbird	Hermit thrush	Townsend's warbler
Yellow-bellied sapsucker	Golden-crowned kinglet	Golden-crowned sparrow
Hairy woodpecker	Ruby-crowned kinglet	White-throated sparrow
Say's phoebe	Cedar waxwing	Fox sparrow
Varied thrush	Myrtle warbler	

TRANSITORY MIGRANTS

Sharp-shinned hawk
Peregrine falcon
Gray-cheeked thrush (?)
Ash-throated flycatcher
Black phoebe
Slate-colored junco



POST 1

BLUE GUM Eucalyptus globus

This aromatic tree was brought to California from Australia more than a hundred years ago. It is evergreen with bark that is shed in long strips leaving a smooth trunk. The tree can grow to 200 feet. Look at the new growth (seedlings and new branches). It has silvery-blue, rounded leaves that grow opposite each other. Roll the twig between your fingers; it is square. The mature leaves are leathery, green and sickle-shaped, and they alternate on the twig and have leaf stalks. Now roll a mature twig between your fingers; it is round. The ripe fruit is a hard, woody, cone-shaped capsule about an inch in diameter.

GEOLOGY

Walk a little bit further along the trail until you have a good view of the Bay Area below. You can see where the hills you are on end abruptly and the ground becomes flat. The flat ground is made up of sediments that have been deposited there by many streams and the Sacramento River. The hills were raised up a few million years ago, when intense folding, faulting, uplift, and depression began in the Bay Area. Probably about the same time as the hills were being raised, the depression that was to become the San Francisco Bay was formed. It has only been within the last 25,000 years (very recent in the earth's history) that ocean water flooded most of the area that became the San Francisco Bay. The flooding was caused by the rise of the sea level when the ice of the last glacial stage melted and the water went into the ocean. A slight down-buckling of the ground also helped cause the flooding.

POST 2

POISON OAK, PACIFIC POISON OAK Rhus diversiloba

Leaves of three, let them be! Look at this plant from a distance. Contact with poison oak causes an itchy skin rash in most people. Learn to avoid it by recognizing the oak-like lobed leaves which grow in groups of three at the ends of each branchlet. Poison oak may be seen growing in clumps, in thickets, as a woody vine climbing up trunks of trees, or just as a small plant. The leaves are from one to six inches long. In the spring the leaves are green. They turn a beautiful, brilliant red in summer and later fall off leaving bare woody stems. The red leaves give the hills a beautiful color for fall. Beware! Even the dry leaves and stems cause the rash.

POST 3



COAST LIVE OAK, ENCINA or CALIFORNIA LIVE OAK Quercus agrifolia

You have just come into a grove of trees where coast live oak is the dominant species. The tree in front of you is a coast live oak. This tree grows to 75 feet, has long crooked branches, and a broadly rounded crown. Look at the leaves. They are prickly on the edges (holly-like), and are dark shiny green above, and lighter and slightly downy beneath. Look at the downwardly curled edges. This tree is green all year. See if you can find an acorn. The fox squirrels eat the acorn. The California Indians used the acorn to make a sweet mush and even a bread. This was their main food. They found a way to leach out the bitter taste of tannic acid in the acorn. The coast live oak used to grow in large groves where Oakland now is, thus giving the city its name. This is the commonest native tree in this area.

CALIFORNIA BLACKBERRY Rubus vitifolius

Take a look at this plant growing low on the ground all around this area. (Use the drawing to identify it.) Even though it has leaves of three, it is not poison oak, but California blackberry. This is a very prickly plant, but poison oak is not. California blackberry grows as a trailing vine, and can form a formidable thicket. The ripe, black fruit is about $\frac{1}{2}$ inch long and good to eat, but occurs only sparsely. If you find a ripe fruit, why don't you try it.

HIMALAYA BERRY Rubus procerus

You may see this at some other point along the trail. The Himalaya berry is similar to California blackberry, but fruits more heavily. It has large curved thorns, which are quite different from the straight, slender thorns that grow very thickly on the stems of the California blackberry. The Himalaya berry usually has its leaflets in groups of five, whereas the California blackberry has leaflets in groups of three or five. The Himalaya berry is not a native plant, but escaped from cultivation. The berries make a tasty pie.

POST 4

COASTAL WOOD FERN Dryopteris arguta

This fern is growing all over this slope. It is an evergreen, and the fronds (leaves) grow 1 to $1\frac{1}{2}$ feet long. Look at the undersides of some of the fronds and see if you can find the sori (see illustration). The sori contain spores, which are like seeds. Spores do not reproduce new ferns directly, however, but produce a small, inconspicuous plant called a prothallus. The prothallus then produces a new fern. This process is known as "alternation of generations", and all ferns reproduce this way.

GIANT VETCH, LARGE VETCH, PURPLE VETCH Vicia gigantea

This vine, which is growing on the slope of the hill, may get as long as 15 feet. It is usually found in moist places. The leaves are alternate on the stem, and end in a tendril. Each leaf is composed of pairs of leaflets, which are opposite. 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 plant when it dries.

POST 5

TOYON, CHRISTMAS HOLLY Heteromeles arbutifolia (Photinia arbutifolia)

This evergreen plant grows as a large bushy shrub or as a small tree up to 25 feet tall. You have just walked under one which is growing over the trail. Look at one of the dark, glossy green (paler underneath), leathery, finely-toothed leaves. In June and July white flowers can be seen in

POST 5 (continued)

clusters. If it is the right time of year (November to January), you will see red (rarely yellow) berries in large clusters. Because of the color of the berries and leaves at Christmas, the toyon is also called Christmas berry and California holly, and is used for Christmas decorations. The berries were a popular Indian food, and early Californians used them to make a drink. Birds love the berries.

ARROYO WILLOW, WHITE WILLOW Salix lasiolepis

This small tree is growing at the left-hand side of the trail, and also a few yards back down the trail. The arroyo willow, which can be up to 30 feet tall, is seen growing on a stream bank, a very typical location. It is the most common willow in the Bay Region. The leaves are 2 to 5 inches long. Look at a leaf, and notice that it is green above, but whitish beneath. For this reason, the tree is also called the white willow.

POST 6

There are three different kinds of vines or vine-like shrubs growing in the coast live oaks here. They are California honeysuckle, poison oak, and toyon.

CALIFORNIA HONEYSUCKLE Lonicera hispidula

This vine is growing on the tree right by the post. On the lower portion of the plant, all you can see is the woody vine, which is easily recognized by its shreddy bark. The California honeysuckle can grow up to 30 feet high, but needs something (such as a tree or bush) to support it. Look up high and try to spot the evergreen leaves at the end of the vine. If you don't see any leaves on this vine, you might try looking at another one. In spring and early summer, this plant has pink or purplish flowers. In fall it has shiny red berries. The California honeysuckle also grows as a smaller plant, on the ground or climbing in bushes, and may be seen in this form at other places along trail.

POISON OAK Rhus diversiloba

This is the same plant you saw at post 2 growing in a different form. Look behind you and around the area to try to find this woody vine growing up the tree trunks. Do not touch it, however, because even the woody part can give you the rash. It has aerial rootlets growing from the bare vine. The rootlets are used to attach the plant to the tree as it climbs. Many of the vines close to the trail have been cut, and a black stain can be seen where the juice came out. The Indians, who were nearly immune to the poison, used this black juice stain to make ornamental designs on their utensils. Poison oak vines can grow to heights of more than 40 feet.

TOYON, CHRISTMAS BERRY, CALIFORNIA HOLLY Heteromeles arbutifolia (Photinia

Just across the trail from the post, there is a toyon growing arbutifolia) like a vine. Can you recognize this plant that you saw at the last stop? The toyon is growing this way because it is being shaded by the larger coast live oaks. Do you see how some of the toyon's branches are twisted around the coast live oak like a vine?

NORTH AND SOUTH SLOPES OF HILLS

You are now on the south-facing side of a hill. Across the stream, where you have already walked, is the north-facing slope of a different hill. Do you notice any differences between the slope you are on and the one across the stream? The north slope has many more smaller plants growing on it, and is

NORTH AND SOUTH SLOPES OF HILLS (continued)

steeper than the south slope. This is typical of north and south slopes in the northern hemisphere. This is because in the northern hemisphere the sun shines more on south slopes than on north slopes. This makes the south slopes drier, so plants do not grow as well there as on the moister north slopes. Also, if there is a fire, the dry south slopes burn easily, and the plants there are destroyed. Since more plants grow on the north slopes, there are more roots to hold the soil, and therefore not as much erosion occurs there as on the south slopes. Thus, while the south slopes get eroded away until they are not very steep at all, the north slopes remain steep.

When you leave this grove of trees, you will be on an open, grassy hillside. You may be able to find soap plant and other plants described in the general information part of this pamphlet.

POST 7

FRENCH BROOM Cytisus monspessulanus

This shrub is a native of the Canary Islands. It has become naturalized in California, where it is now a pernicious pest. It has many leaves, which are divided into three leaflets. In spring, French broom has many small, bright yellow, fragrant flowers. Later, downy pods form.

GEOLOGY

Move ahead so that you can see, to the north, San Pablo Bay. The Sacramento River drains into San Pablo Bay, then into San Francisco Bay and out to the ocean through the Golden Gate. The Sacramento River is the only river that flows through the Coast Ranges, and therefore, all the water that drains into the Central Valley, including most of the water from the western slope of the Sierra Nevada, must flow out through the Bay to reach the ocean. The Sacramento River made its way through the Coast Range when these mountains were temporarily below sea level. When the Coast Range slowly emerged, the river cut own into the rocks as quickly as they rose, and thus was able to keep on flowing in the same direction.

COAST SAGEBRUSH, CALIFORNIA SAGEBRUSH, OLD MAN Artemisia californica

Several California sagebrush plants are growing along the trail here and just ahead. It is a common shrub on the exposed slopes and dry hills of the Bay Area. It is dense and bushy and grows 2 to 5 feet high. The leaves are made of threadlike segments and are greyish. Crush a leaf in your fingers and smell it. It has a strong sage-like odor.

COAST LIVE OAK Quercus agrifolia

Ahead on the right-hand side of the trail coast live oak is growing as a big bush, and not as a tree as you saw it at post 3. It is bush-like because deer eat it back and do not give it a chance to grow tall. Can you see where it has been eaten all around the outside? Once the coast live oak is able to grow above where the deer can reach, it will grow up to be a tree. You can see that in the middle it is getting quite tall. The prickly leaves of this plant are supposed to keep deer and other animals from eating it. If you could see a leaf from the top of a tree, you would notice that it is not nearly so prickly as the lower leaves, because there is no need for protection there, since the deer cannot reach that high.

POST 8

CALIFORNIA COFFEEBERRY Rhanmus californica

The California coffeeberry is a shrub with elliptical, dull green leaves. It has small berries that start out green, turn red, and finally turn black

POST 8 (continued)

when they are ripe. The berries look like berries from which coffee is made, and an attempt was once made to cultivate the shrub and use it to make a substitute for coffee. It was discovered, however, that the fruit of the California coffeeberry, when roasted, did not smell like coffee, and that it did not have other properties of coffee, so the idea had to be abandoned. The bark is used as a laxative.

POISON OAK Rhus diversiloba

From here you can see a large, looped "vine". When you walk about 12 feet further along the trail, it will be directly to your right up the slope. Do you see the leaves of the vine growing high overhead in the trees? This is a very large poison oak vine. Do you see how thick the base of the vine is before it separates into two different parts?

POST 9

BLUE ELDERBERRY, BLUEBERRY ELDER Sambucus mexicana

This plant which extends over the trail, can grow either as a shrub 4 to 10 feet tall or sometimes as a small tree up to 30 feet tall. The generic name, Sambucus, comes from the Greek work sambuke, an ancient musical instrument made from hollowed-out elder wood. Look at the leaves. They grow opposite each other and have 3 to 9 leaflets (usually 5). The small whitish flowers grow in clusters in early summer. The blue-black berries are edible and used for making jelly, wine, and pie. Birds love the berries.

CURRENT Ribes sp.

Just a few steps further along the trail, on the left-hand side is a currant bush. This plant also has berries that can be eaten and are used to make jelly.

POST 10

MONTEREY PINE, INSIGNIS PINE, REMARKABLE PINE Pinus radiata

This tree did not grow natively on this hills. Perhaps it was planted or escape from a garden. If you look at the needles, you will see that they come in bundles of 3, or sometimes 2. Try to find a cone on the tree. Notice that the cone is a dark russet-brown, 3 to 7 inches long, and looks lopsided. Of all the species of pine, the Monterey is the fastest growing, and therefore also is called remarkable pine or insignis pine, (Insignis is the Latin word for remarkable.) It is usually of moderate size, but planted trees have grown to 125 feet in only 60 or 70 years. The young trees (such as the one you see now) are symmetrical and cone-crown. In other countries, this tree is used for lumber, but here it is used as a windbreak, an ornamental tree, or a Christmas tree. This pine needs high heat (usually a fire) to open the cones so that the seeds may be released. The seeds find it easy to sprout in the ashes left by the fire, and the young trees grow well in the area cleared by the fire. This pine is very flammable and so is considered a fire hazard.

BLUE BLOSSOM, CALIFORNIA LILAC, BLUE BRUSH, BLUE BYRTLE Ceanothus thyrsiflorus

This tree is growing to the left of the Monterey pine. The blue blossom grows as a large bush or a small tree up to 25 feet high. Turn the leaf over to see the three prominent veins. The spring flowers are a beautiful light blue. The tree-parted fruit is black and sticky when ripe. This shrub is an important food for deer.

POST 11

COYOTE BUSH, CHAPARRAL BROOM Baccharis consaguinea

This erect, evergreen shrub grows 2 to 10 feet high and is common in the

POST 11 (continued)

Coast Range hills and valleys. If you look at the leaves, you will see that they are dark green and coarsely and irregularly toothed. From August to October coyote bush has white flowers, which have a bad odor at one stage of their development, somewhat like that of dead sheep. Each plant has only male or only female flowers.

SILVER LUPINE, BUSH LUPINE Lupinus albifrons

This plant is growing at the base of the coyote bush. The silver lupine gets its name from its silvery, silky leaves. Forms of this species grow up to 6 feet tall. The silver lupine has very leafy branches, and has masses of blue or purple flowers from March to July.

There are many kinds of lupines. Most of them are herbs and not shrubs. You may see some other lupines in the open, grassy areas of this nature trail. Lupines are able to grow in poor soil. The flowers are all quite similar to the silver lupine's and the fruit is a pod.

WESTERN BRACKEN FERN Pteridium aquilinum

Look for this fern around the brush after you cross the fire road and continue on the nature trail. Bracken fern grows 1 to 4 feet tall and loses its leaves in winter. It has spores that grow all around the margins on the underside of the leaves. Although some parts of this plant are considered poisonous, the Japanese use the root in soup, the Indians boiled and ate the root, and also used it as a medicine. The early settlers used the broad fronds for thatching cabin roofs.

POST 12

CALIFORNIA HAZEL, HAZELNUT, FILBERT Corylus cornuta californica

Have you ever eaten a filbert? The commercial filbert (or hazelnut) is produced by this shrub. Squirrels and birds like the nuts as well as man does 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. The shrub usually grows along streams in cool canyons, or on moist slopes.

WESTERN SWORD FERN Polystichum munitum

This is yet another kind of fern. 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 if you can guess how it got its name. It is named "sword" because each little leaflet has an upward projection at its base that resembles the hilt of a sword. From this relatively broad hilt, the leaflet tapers to a sharp point, thus resembling a miniature sword. Many fronds grow from a central crown. They grow one to five feet tall.

BLUE GUM Eucalyptus globus

These trees are growing below you near the houses on Douglas Drive. From what you learned at post 1, can you distinguish the new growth from the older growth?

TOYON Heteromeles arbutifolia (Photinia arbutifolia)

As you proceed towards post 13, notice to your right the huge toyon. This is a very fine specimen of this plant.

POST 13

BUSH MONKEY FLOWER, STICKY MONKEY FLOWER, ORANGE BUSH MONKEY FLOWER
Mimulus guttatus

POST 13 (continued)

These bushes are growing all over the hillside above you. They are 2 to 5 feet tall, and beautiful to look at when in full bloom. Some of the orange to yellow, funnel-shaped flowers can be found most of the year. The leaves are dark green and somewhat sticky beneath. Does the flower of this bush look like a monkey's face to you?



WESTERN BRACKEN FERN

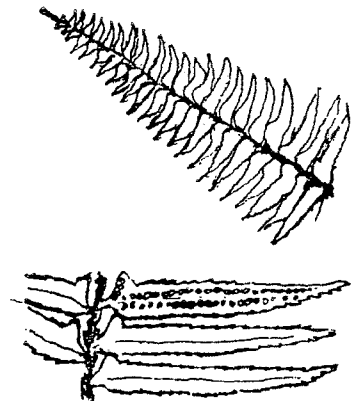
BUSH MONKEY FLOWER

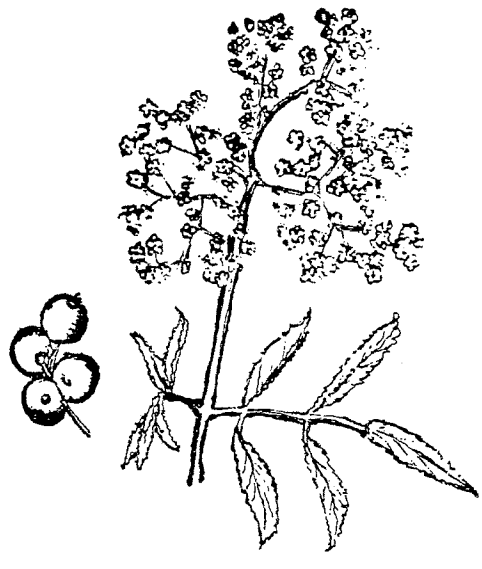


HAZELNUT

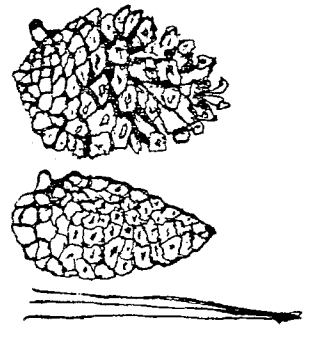


WESTERN SWORD FERN





BLUE ELDERBERRY



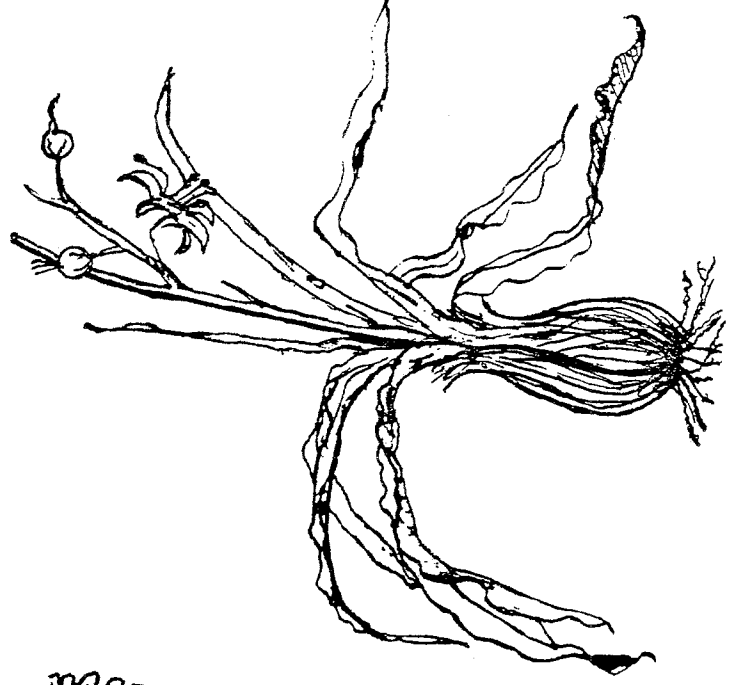
MONTEREY PINE



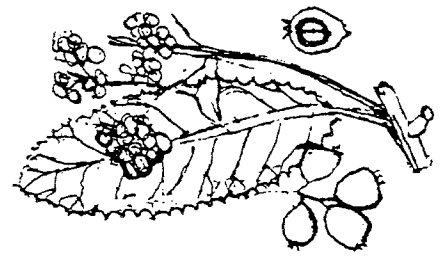
CALIFORNIA COFFEE BERRY



CALIFORNIA HONEY SUCKLE



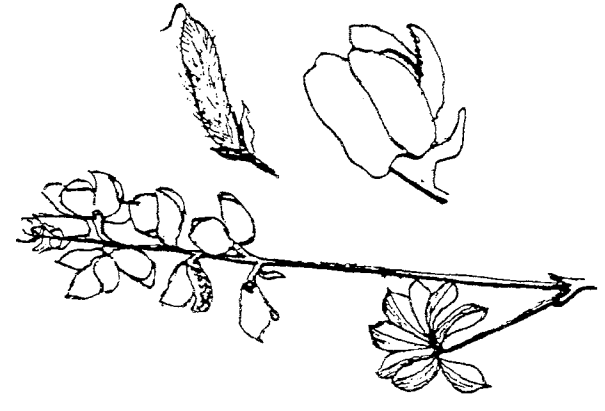
SOAP PLANT



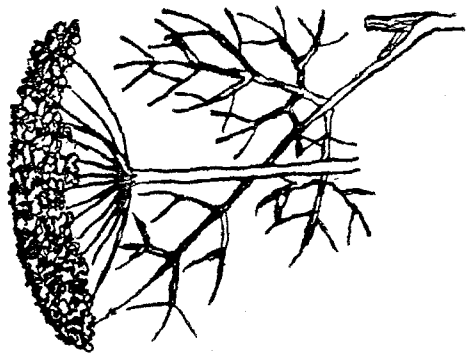
TOYON



COAST WOOD FERN



SILVER LUPINE



SWEET FENNEL



BLUE BLOSSOM



CALIFORNIA GOLDENROD



ARROYO WILLOW

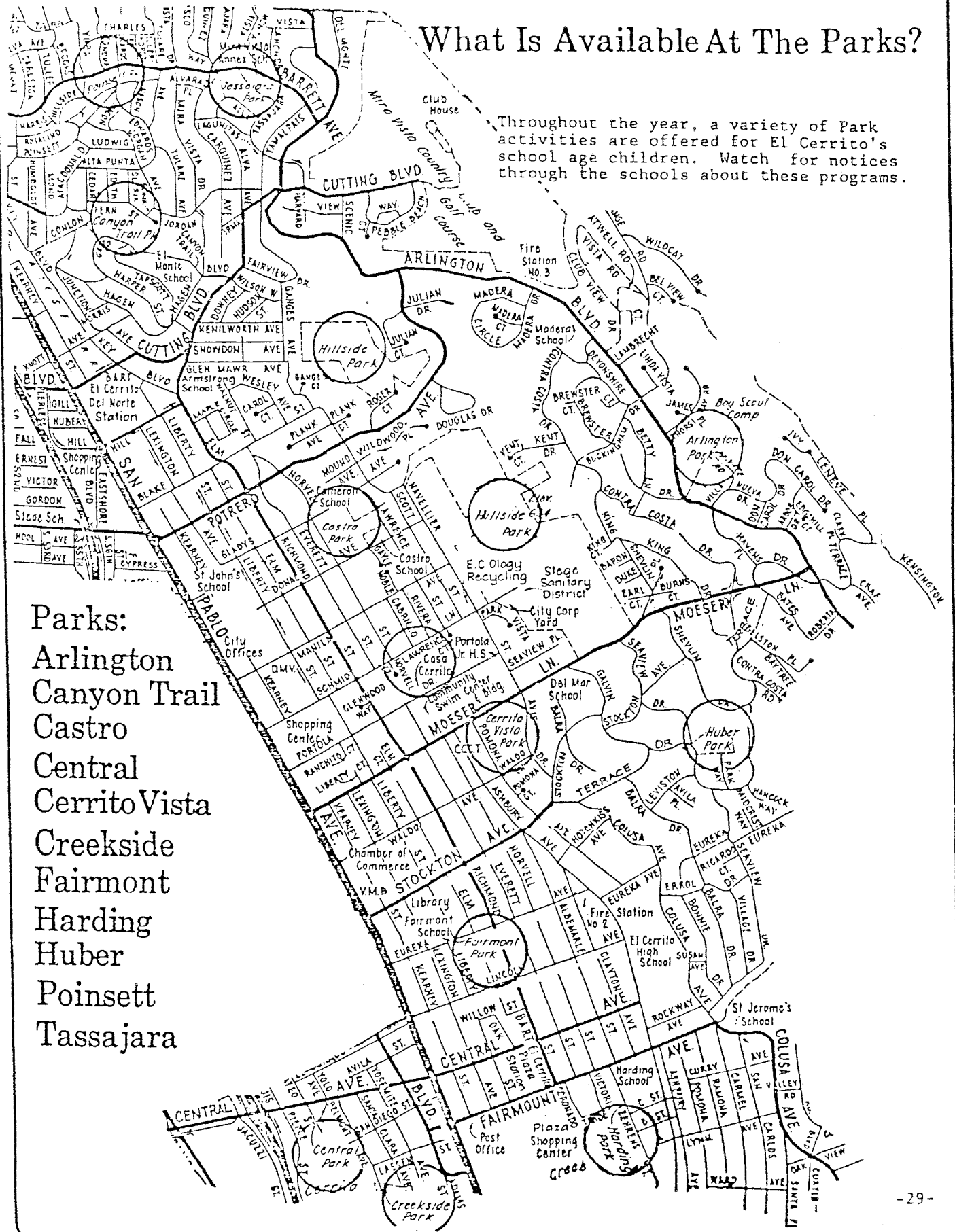


BLUE ELDERBERRY

EL CERRITO PARKS & PLAYGROUNDS

What Is Available At The Parks?

Throughout the year, a variety of Park activities are offered for El Cerrito's school age children. Watch for notices through the schools about these programs.



- Parks:**
- Arlington
 - Canyon Trail
 - Castro
 - Central
 - Cerrito Vista
 - Creekside
 - Fairmont
 - Harding
 - Huber
 - Poinsett
 - Tassajara