

to make tasty spinach, high in protein and other nutrients. How do you think they were able to eat this plant without being “stung”?



creek stinging nettle
Urtica dioica ssp. holosericea

11 A pleasant retreat

California hazel grows behind this bench. It has a flavorful nut that seems to form best on plants that get some sun. When exposed to fire of relatively low temperatures, California hazel sends up straight shoots, which local Indians used for arrow shafts. Ohlone peoples knew the plants and animals as well as their own human relatives. This is a wonderful place to watch and listen for birds and other wildlife before heading back uphill to the last four trail stops.



California hazel
Corylus cornuta ssp. californica

12 From bulb to brush



common soap plant
Chlorogalum pomeridianum

Local Indians used the bulbs of common soap plant to make a small brush, similar to a whisk broom. They also used the bulbs for soap and to kill fish for food. In 1786 Francisco Palóu noted the local importance of the bulbs for food. “These are baked in holes in the ground, where the fire is kept burning for two or three days until they know they are very well baked. Then they take them out and eat them, finding them sweet and juicy like preserved fruit.” The leaves of common soap plant dieback every fall, then resprout in the spring from the same bulb.

13 More about baskets

Ohlone basketmakers use arroyo willow shoots in the foundation of their baskets. Arroyo and other basketry willows need pruning or burning to grow straight, flexible shoots of the length and fineness needed to make a well-shaped basket. They used other, more stout willow species for poles for the framework of their houses. Willow bark contains a substance similar to the active ingredient in aspirin, so it isn’t surprising that Ohlone peoples treated colds with a tea from arroyo willow bark, or the young leaves.



arroyo willow
Salix lasiolepis

14 Native grasses



native bunchgrasses

Native bunchgrasses sprout year after year from the same base, set their seed, then only partly dieback. Bunchgrasses were no match for introduced European “annuals” that grow for a few months, produce seeds, then dieback completely. It is these annuals that cover most California hillsides.

15 Coastal sage scrub community

Coastal sage brush gives this scrubby plant community its name. Gently rub the leaves and you’ll smell the oils that help prevent water loss from them. Local Indians made a tea from the leaves of this plant to bathe patients suffering from colds, coughs, and rheumatism.



coastal sage brush
Artemisia californica

Some final thoughts

People have lived in this general area for at least 12,900 years. For most of that time, they saw themselves as part of nature, not apart from it. Within your own cultural tradition, in your own personal way, we hope that you will help protect nature and reestablish a closeness to it.

To find out more

For information about naturalist-led programs at Leona Canyon, contact the Crab Cove Visitor Center at (510) 544-3187 or ccove@ebparks.org.

For information about programs through which contemporary Ohlone and Bay Miwok share cultural knowledge and skills, contact the Coyote Hills Visitor Center at 510-544-3220 or chvisit@ebparks.org.

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Local Indian Uses of Plants a Self-Guided Trail



Leona Canyon Regional Open Space Preserve

 East Bay
Regional Park District
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Welcome!

At one time, the East Bay was home to about 25 local tribes, who spoke Ohlone and Bay Miwok languages, including the Jalquin/Irgin of the areas traversed by the San Leandro Creek, San Lorenzo Creek, and the creeks above Hayward.

This brochure, which follows numbered trail markers, provides a glimpse of how local tribal peoples lived so well for so long here, with emphasis on the many ways that they used plants in their daily lives. Although Jalquin/Irgin plant uses were never documented, in the 1920s and '30s such information was recorded with elders of Rumsien and Mutsun heritage. The plants uses in this brochure come from those elders, whose Rumsien and Mutsun people were the Ohlone tribes of the Monterey and San Juan Bautista areas.

The trail is an easy to moderate half-mile downhill walk through open brush land and a shady, wooded canyon. It returns uphill along the same route. As you walk, please take only memories and leave only footprints.

1 Useful plants everywhere you look

Local Indians ate the sweet-tasting fruits of evergreen huckleberries, California blackberries, and woodland strawberries. They brewed a minty-tasting tea from yerba buena, the small vine you see. The roots of California blackberry also provided medicine.



California blackberry
Rubus ursinus



woodland strawberry
Fragaria vesca



evergreen huckleberry
Vaccinium ovatum



yerba buena
Clinopodium douglasii

2 Poisonous plants among the useful

If you touch western poison oak you may develop an itchy skin rash. Ohlone peoples ate specific amounts of young western poison oak leaves to prevent the rash, and to prevent colds. When they did get the rash, they made plant medicines to treat it. They used western poison oak shoots for basketry and wrapped acorn meal in the leaves before baking it in hot coals in a covered pit in the ground. Why do you think Ohlone peoples were able to use this plant for these purposes while, at the same time, some of them were allergic to it?



western poison oak
Toxicodendron diversilobum

3 Music and more

Local Indians made a tea with the leaves of blue elderberry for a laxative and for treating colds. They also ate the berries. This shrub, when pruned or burned, grows straight, hollow shoots used for making flutes, pipes, and fires. Do you see any straight shoots on this blue elderberry?



blue elderberry
Sambucus nigra

4 Staple foods

Coast live oak acorns, and those of other oaks and tanoaks, provided one of two carbohydrate-rich, staple foods. Small seeds provided the other. Water must be dripped through acorn flour to bring out its light, nutty flavor. Ohlone peoples retained this leaching water for use as a diarrhea remedy. They created mortars and bowls from oak wood.



coast live oak
Quercus agrifolia

5 From south to north

As you enjoy the view, you will notice some distinct differences between the types of plants that grow on the canyon slopes that face south, exposing them to

direct sunlight, and the slopes that face north. This is a good place to think about how local native peoples used fire to manage the landscape.

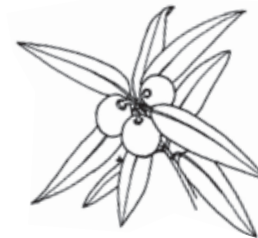
Ohlone peoples understood that fire, when used with care, could return nutrients to the soil, eliminate some diseased organisms and prune plants. In 1816 Adelbert von Chamisso noted their practice of burning meadows "from time to time to increase their fertility." Tule elk, deer, and pronghorn antelope, all hunted by the Jalquin/Irgin, fed on the new, tender shoots of grasses, shrubs, and other plants. Because local Indians burned some places annually, fuel from dead and decayed plant material did not build up on the ground, so the fires burned slow and relatively cool. Now look at the wetter north-facing slopes. Here tall trees can grow. You'll notice one type of tree with a reddish-colored bark. This is madrone, whose berries were sometimes eaten.



madrone
Arbutus menziesii

6 A plant of many uses

Gently rub a single leaf of California bay, or pepperwood. What does it smell like? Local tribal peoples used the leaves in special ways to freshen the air in their homes, drive away fleas, cure headaches, and treat poison oak rashes. They ate the roasted nutmeats.



California bay
Umbellularia californica

7 A delicious food

California buckeye contains glycosidal compounds, causing the raw fruit to be poisonous. Yet local Indians made a delicious food first by boiling, then leaching the fruit. They used the aesculin in the mashed fruits to kill fish in pools of water in a stream. The fish remained safe to eat.



California buckeye
Aesculus californica

8 Basketry

Baskets are one of the most cherished objects ever made by California Indians. For the light-tan-colored sewing strands in their baskets, contemporary Rumsien and Mutsun weavers dig the underground stems (rhizomes) of sedge, where it grows in sandy-loam, flood-plain soils. Contemporary Ohlone dig the rhizomes of two plants closely related to the smooth scouring rush that grows here to make black sewing strands for basket



sedge
Carex spp.

designs. Digging mixes nutrients from the ground surface into the soil. It loosens the soil, thereby adding oxygen. As a result, new rhizomes grow longer and straighter than if they were never dug. Ohlone basketmakers extract sewing strands from the rhizomes, then cure, soak, and trim these, so that every sewing strand in their baskets is the same width and thickness. Do you think you might have the patience necessary to make a basket?



smooth scouring rush
Equisetum laevigatum

9 A dye

Ohlone peoples gathered chunks of white alder inner bark to make a lovely, reddish-orange dye. They used straight, flexible white alder sprouts, the type that result from burning, for the rims on some baskets.



white alder
Alnus rhombifolia

10 Thriving in shade

Beware! Creek stinging nettle thrives on the creek banks. It has needle-like hairs that, when touched, inject a substance into the skin that causes temporary pain. Despite this, local tribal peoples used this plant to make a tea for treating sores and hives. They tapped the leafy stems against aching joints "to reduce pain." Some California Indians boiled the leaves