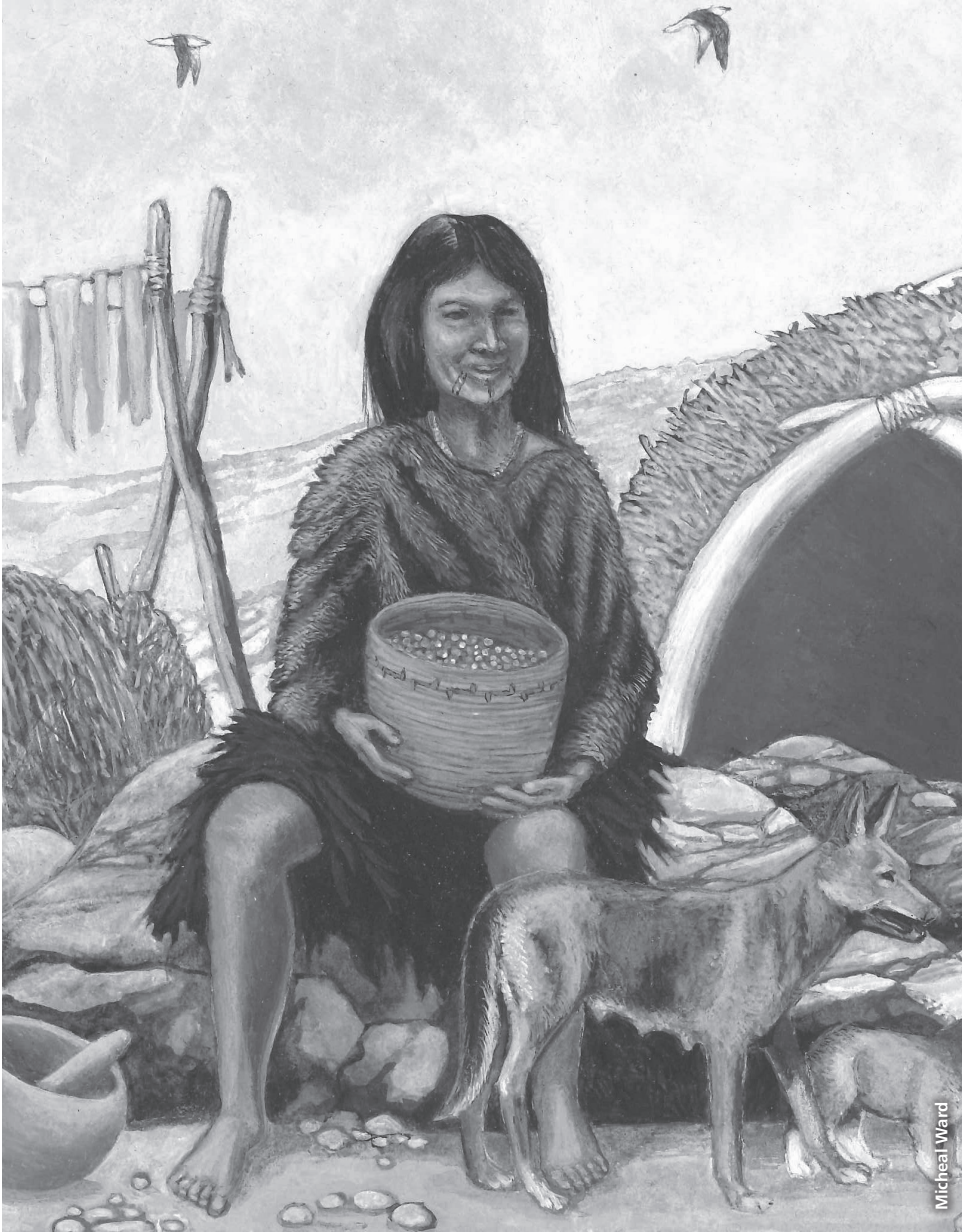
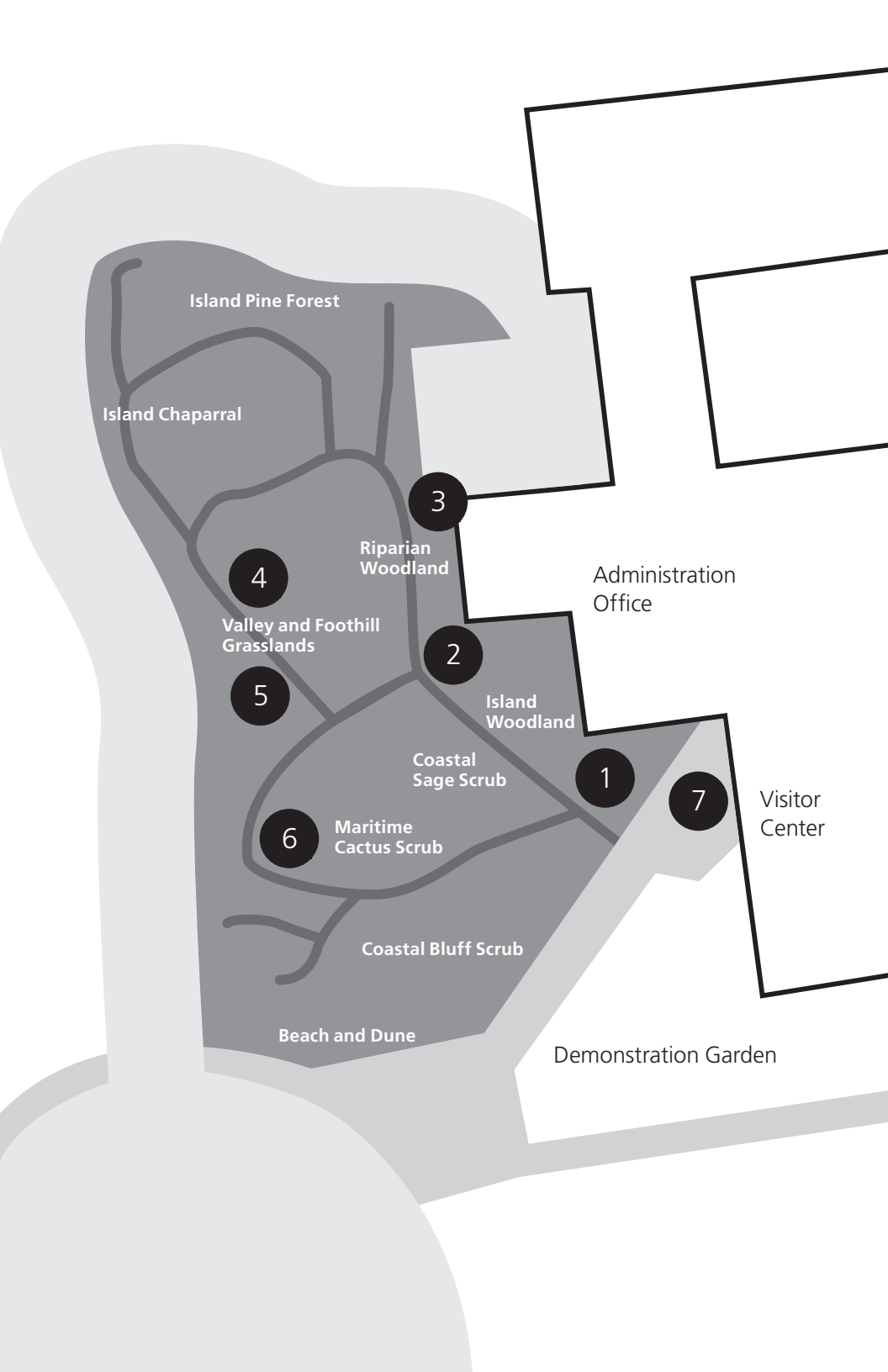




Guide to Island Chumash Plant Usage

Native Plant Garden





Island Pine Forest

Island Chaparral

4

Valley and Foothill
Grasslands

5

6

Maritime
Cactus Scrub

Coastal Bluff Scrub

Beach and Dune

3

Riparian
Woodland

2

Island
Woodland

Coastal
Sage Scrub

Administration
Office

1

7

Visitor
Center

Demonstration Garden

Guide to Island Chumash Plant Usage

Native Plant Garden






A cool island breeze ruffles the young Indian mother's hair as she pauses in her work. She loosens the bands of red milkweed fiber holding her braid and tucks in the wispy strands of loose hair. Carefully she wraps the braid in a bun and inserts the large, wooden hairpin decorated with glittering shell. A few feet away her baby sleeps on his cradleboard of willow sticks and tules.

It is summer, and she is gathering bulbs for her family. In her right hand she holds a digging stick of smooth, strong toyon wood. The digging stick is of the best quality; the wooden point is sharp and hard, and a green, doughnut-shaped stone weight encircles the shaft. A duller, lighter stick would be useless in hard soil. Near her foot sits a basket of woven rush. The basket is full of wild hyacinth bulbs, the result of her morning's work.

The young mother brushes the dirt from her hands as she begins to plan her meal. First she will clear out the roasting pit and fill it with hot rocks covered by a layer of grass. On top of the grass she will place the bulbs, then more grass and earth. They will bake for a whole day, and tomorrow they will eat them with the fish her husband catches.

But some of the bulbs she will set aside for her husband's next trading expedition to the mainland. Although the mainland Indians have more acorns and a greater variety of plant foods, the island bulbs grow larger, and for this reason they are a popular trade item. The girl smiles as she imagines the gifts her husband will bring home from his next trading trip.

Map Key

-  Stops
-  Trail
-  Sidewalks
-  Roads
-  Buildings

map not to scale

continued on next page

For thousands of years, the Chumash occupied the northern Channel Islands, as well as a large portion of the mainland from San Luis Obispo south to Malibu. They lived in towns or settlements (which the Spaniards called rancherías), each of which was under the leadership of a wot, or chief. The settlements located along the Santa Barbara Channel were especially populous.

The Chumash were hunter-gatherers who obtained their food by hunting land and sea mammals, fishing, and gathering shellfish and plant foods. Although they did not practice agriculture (prior to the Spanish missions), the Chumash used native plants as a primary source of food and medicine. Native plants also provided important construction materials for canoes, houses, bows, arrows, nets, baskets, beds, clothing, footwear, ornaments, and a variety of other items used in daily life.

The Native Plant Garden includes some of the important plants used by these people. Each trail station includes a brief discussion of these plants and the uses made of them by the Chumash. The Island Chumash names, as well as the common plant names, are printed next to each illustration.

Stations along the trail are marked by numbered tiles and decorated with a black Chumash symbol.



A separate trail guide describing plant adaptations is available at the trailhead and in the visitor center.

As you walk the trail remember many native plants are easily damaged. Please do not pick the flowers or touch the plants.

1

Plants Used in Manufacturing

During the winter season the toyon's red berries provided an important food supply for birds as well as for many California Indian groups. Toyon was also a valuable source of hardwood for manufacturing a variety of implements such as arrows, harpoons, fish spears, digging sticks, and gaming pieces.

The Chumash often used heat or steam to shape and form objects made from toyon and other hardwoods. For example, bundles of toyon arrows were steamed in earth ovens to make the rods pliable; the shafts were then straightened and allowed to dry. After drying, the arrows were trimmed to the proper size, the points shaped and hardened in hot ashes, and feathers added.

Other plants important to Chumash manufacturing included elderberry, used for whistles, clapper sticks, and bows; willow, used for house frameworks, basketry, and cordage; tule, used for matting and for thatching houses; and milkweed, used for string.



Chumash clapper-sticks,
rhythm instruments made
of elderberry wood

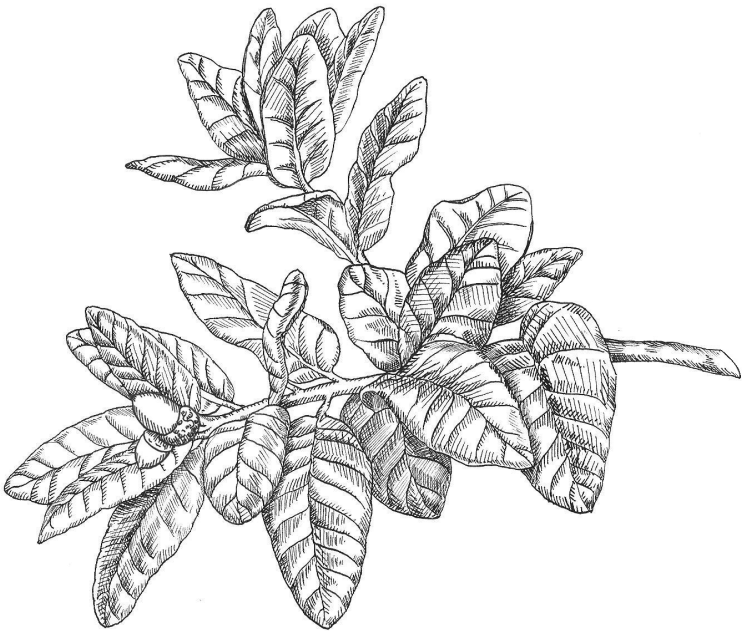


qwe'
(Toyon)

Chumash Plant Foods

The acorn was an important food source for many California Indian groups. Each fall acorns were gathered, hulled, dried, and stored in large granary baskets. During the summer these baskets sat on wooden platforms outside the homes; during the rainy season the baskets were taken inside. When prepared, acorns were ground into meal, leached to remove the tannic acid and bitter flavor, and cooked in mush.

Although the Island Chumash gathered acorns, oaks are less abundant on the Channel Islands than on the mainland. To increase their supply of acorns and other medicinal and food plants, the islanders engaged in trade or undertook gathering expeditions to the mainland.



missi
(Acorn)

The Island Chumash also compensated for the short supply of acorns by substituting other plant foods in their place. One important alternative was island cherry (*'akhtayukhash*). Most often island cherry grows as a large shrub, however, in deep, moist soils and with ample sunshine, it can grow into a forty-foot tree. Island cherry blooms from spring through early summer; when ripe the fruit ranges in color from dark purple to black, and is characterized by a large seed and pulpy flesh. The Chumash boiled the seeds until a thick mush or paste remained, which they molded into balls.

Other seed foods, including manzanita, chia, and red maids, were ground into meal and cooked in mush or prepared as small cakes. Bulbs, roots, and tubers were roasted or baked in underground earth ovens, while green plants such as clover were eaten raw.



'akhtayukhash
(Island cherry)



Chumash Medicinal Plants

To ensure your safety, please do not touch any of the plants at this trail stop.

The featured plant is poison oak and it can grow amongst other plants in this area. Poison oak can cause painful allergic reactions and rashes if it comes in contact with the skin. Remember: leaves of three, leave it be!

Poison oak provided an effective and readily available treatment for skin disorders. Poison oak grows on all of the Channel Islands except Santa Barbara Island, and is readily identified in spring as a three-leafed shrub or vine with bronze-green foliage. During late summer and fall the leaves turn a red or rust color, and white berries develop.

The Chumash used poison oak to treat warts, cankers, and skin cancer. Warts and cankers were treated by breaking a stem and spreading the juice on the sore. The treated skin turned black, and when it healed the wart or canker was gone. A similar poison oak treatment was used to stop blood flowing from an open wound.

Poison oak was also used in conjunction with mugwort to treat skin cancer. First, a small patch of dried mugwort was placed on the cancer, set afire, and allowed to burn down to the skin. Following this, poison oak would be applied to any cancer that remained. The poison oak was applied during spring, when the stems were full of sap. The skin turned black, and when it healed the cancer was gone.

Other medical problems were treated with milder herbal remedies. The petals of wild rose were boiled for two or three minutes and the resulting wash used to soothe irritated eyes or the gums of teething babies. Wild tobacco was mixed with lime from burned shells and used as a purgative for stomach pains and intestinal parasites.



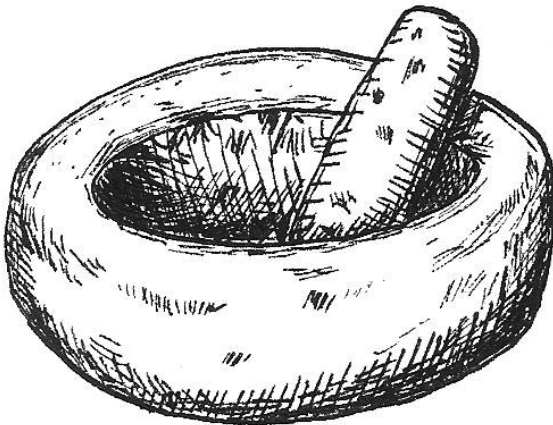
yasis
(Poison oak)

4

Chumash Plant Management

The Chumash carefully managed plants and plant communities to improve the yield of wild seeds. Certain native annual plants are “fire-followers” and sprout more vigorously or in greater profusion after fire has cleared away old growth. By periodically burning off grasslands, the mainland Chumash increased the seed and bulb production of useful fire-following plants, and discouraged invasion by shrubs of the chaparral and coastal sage-scrub communities. Periodic burning may also have been practiced by the Island Chumash to increase the supply of important plants such as chia, red maids, and native bulbs and grasses.

One of the most important fire-following plants used by the Chumash was chia, a blue-flowered annual that grows on the islands as well as the mainland. The Chumash and other American Indians harvested the small, gray-brown seeds by brushing them into flat-bottomed baskets using seed beaters made of willow.



Mortar and pestle, used to grind and pound seeds, nuts, and acorns

Chia seeds were used both as a food and as a remedy for eye problems. When eaten, chia was roasted, ground into meal, and mixed with cold water to form a gruel. As a medicine chia was used to remove foreign particles from the eye. When placed under the eyelid a seed would become soft and sticky, eventually adhering to a foreign particle so that both could be easily removed.

Another seed-bearing plant with multiple uses was red maids. Red maids seeds were parched, ground into meal, then shaped into small cakes. The seeds were also used as religious offerings, and have been found in burials on both the Channel Islands and the mainland. The Chumash name for red maids was *Hutash*, the same as the name for Earth, the mother of all things.



'i'lepešh
(Chia)

The dark-green foliage and white, trumpet-shaped flowers of datura are a common sight on the mainland, especially in places where the soil has been disturbed. Datura may originally have been imported to the Channel Islands by the Chumash, who used it for ritual as well as medicinal purposes.

Datura, also known as jimsonweed or thornapple, contains several powerful alkaloids that can be highly toxic. Hallucinations of flying, dancing, and bodily dissolution are common symptoms of datura ingestion. Related species were used for ritual purposes among many societies in Asia, Africa, medieval Europe, and North America. In Chumash oral literature, datura was personified as an old woman named Momoy. Chumash shamans used datura to enter a hallucinogenic trance, during which they would consult with spiritual beings and diagnose serious illnesses. Datura was also used as an anesthetic for setting broken bones and treating severe wounds.

Important note: Chumash shamans were familiar with the effects of datura and highly skilled in administering the proper dosages. Casual experimentation with datura is extremely dangerous and frequently leads to severe nerve and brain damage—even death.



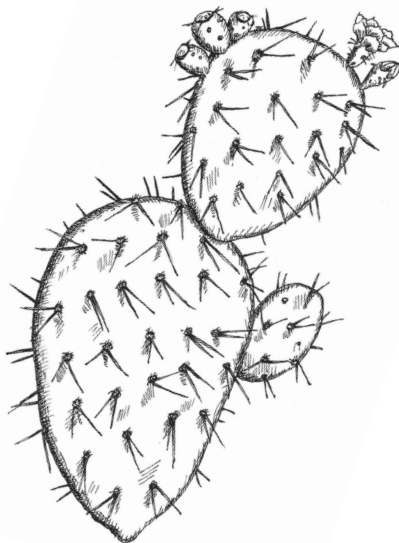
momoy
(Datura)

6

Personal Adornment

Body painting and tattooing were practiced by the Chumash living on the Channel Islands as well as the mainland. Faces, arms, and sometimes entire bodies were painted with decorative patterns of bars and dots, although more elaborate designs might have been used also. Body-painting colors were black, red, and white. Soot obtained from burning piñon wood was used to create black pigment; red and white were mixed from ochre and other mineral substances. Binders made from animal marrow or blood were added to these pigments to form paint that adhered to various surfaces.

Tattooing provided a more permanent form of personal adornment. Vertical and transverse lines were commonly tattooed on the cheeks and chin, although tattoo designs were also applied to the forehead, arms, and other parts of the body. To create a dark-blue tattoo the skin was pricked with a cactus thorn (such as those on the prickly pear) and the punctures rubbed with charcoal. When the wounds healed the pigment was sealed under the skin



qi'
(Prickly pear)



Chumash Native Plant Usage After European Contact

The late eighteenth and early nineteenth centuries brought enormous changes to the Chumash world. On the mainland, the Spanish established missions and recruited the Chumash for labor. The Chumash living on the Channel Islands also felt the impact of Spanish colonization. Many died from epidemics of European diseases, while those who survived entered the missions. By the early 1820s the northern Channel Islands lay abandoned.

This period brought incredible changes to the Chumash landscape as well. The missions and ranchos bred large herds of cattle, horses, and sheep, and these animals devoured much of the native vegetation. Gradually many of these plants were replaced by nonnative grasses and broad-leaved weeds.

For a time some native plants remained in use. Seed foods such as acorns, chia, and island cherry were gathered when available, and tule was used to manufacture matting, windbreaks, and other items. However, as ranching and farming increased, native plants and plant communities declined. Knowledge of Chumash plant use was no longer passed from generation to generation, and much of this rich fund of knowledge was lost.

The information contained in this trail guide is based on historical accounts as well as interviews with Chumash consultants recorded during the early 1900s. While these written accounts remain an important source of data, archaeological and botanical research on the Channel Islands continues as well. This research promises new insights into the complex relationships that once linked the Chumash Indians and the plant communities of the Channel Islands.



swow
(Tule)



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