

## **Native American Uses of California Plants**

Excerpts from the UCSC Arboretum “Plant Uses: California”

[http://arboretum.ucsc.edu/pdfs/ethnobotany\\_webversion.pdf](http://arboretum.ucsc.edu/pdfs/ethnobotany_webversion.pdf)

The people who used the plants before European contact. The indigenous people who lived along the coast between the San Francisco and Monterey bays have been called Ohlone and/or Costanoan. These words do not reflect the true diversity of the area. Costanoan is a Spanish word that was applied broadly to the “coastal people.” Ohlone is an Indian/indigenous word taken from one particular tribal band in the area, but it is incorrectly used to apply to all of the diverse tribelets along the coast. In the 1700’s there were approximately 10,000 people in about 40 distinct tribelets in what is now referred to as Ohlone territory. They spoke different dialects of the Rumsun and Mutsun language groups. The tribelet that lived here in the Santa Cruz area between Davenport and Aptos was called Awaswas. The current descendents of the people who lived from the San Juan Valley (San Juan Bautista) to the Pajaro Valley refer to themselves as Mutsun or Amah Mutsun. (Paul Mondragon and Chuck Striplin, personal communications, 2009 and the Amah Mutsun Tribal Band of Coastanoan/Ohlone Indians [http://www.icimedia.com/costanoan/history\\_pre-mission.html](http://www.icimedia.com/costanoan/history_pre-mission.html), accessed April 27, 2009). Where possible, information on local uses and names is included, but the information on the plants may be from any of the tribes in the western U.S.

Historically, Native Americans had a unique and complex relationship to the land because they depended directly on it for their survival. For the most part they used resources respectfully and employed sustainable land management techniques to ensure the survival of their people for generations to come. Today, we can continue to have a meaningful, reciprocal, and sustainable relationship with the land if we consciously work to stimulate that relationship, be it through the simple recognition of a native plant on a forest walk, or through utilizing and appreciating the herbal remedies that are naturally available to use if we choose to look and learn. Ethnobotany studies the ways both past and present cultures interact with plants, and that includes a look at our own interaction with local ecosystems. We all can achieve and benefit from a meaningful connection to our native landscapes, and this pamphlet is meant to encourage that connection.

The Arboretum at UC Santa Cruz provides an engaging opportunity to interact with plants in an educational environment. In line with its message of conservation, education, and research, this project is part of a larger theme at the Arboretum of human uses of plants. We hope you enjoy your experience at the Arboretum, and continue to consider your relationship with plants in your world.

### ***Achillea millefolium***

Yarrow. Sunflower Family (Asteraceae)

Yarrow is a common and useful plant. The umbrella-like, flat top flowers are not visible for parts of the year because yarrow is deciduous. The leaves are finely divided and look feathery. The leaves can be used externally as an outdoor first aid to ease pain and stop bleeding wounds. The plant has compounds that are anti-inflammatory, meaning they reduce inflammation and pain, and hemostatic, meaning they control bleeding and stimulate clotting. Yarrow is used to bring relief for arthritis, toothaches, headaches, menstrual pain, digestive problems, and colds. Indians, such as the Shoshone, Chumash, Paiute, and Wasco, and others, applied a poultice of boiled or chewed leaves as a treatment for sores, burns, bruises, sprains, swellings, and even broken bones. The leaves and roots were chewed for tooth and gum aches, and a piece of leaf could be rolled and inserted into the cavity of a painful tooth to bring relief. Cecilia Garcia, a Chumash healer, comments that the Chumash (roughly Santa Barbara and environs) take their medicines “softly and neutrally”. She recommends sucking on a yarrow leaf for pain until the leaf loses its flavor, thus allowing the plant to slowly give the proper dose of medicine that the body can absorb.

### ***Rhamnus californica***

Coffeeberry, Puruoric. Buckthorn Family (Rhamnaceae)

Coffeeberry is a large shrub that can grow to be 4 to 10 feet tall. Its fruits are green, but become the color of roasted coffee they ripen—which is how it got its common name. Another characteristic that *R. californica* shares with coffee is that the berries are a strong laxative, especially when eaten raw. Some physicians today use *R. californica* as a substitute for *R. purshiana*, or Cascara Sagrada, which is widely accepted as a laxative and is available commercially in the form of tablets or liquid capsules. The Kawaiisu Indians used the mashed berries, sap, and leaves to stop bleeding and to heal infected sores, burns, and wounds. Coffeeberry can also be useful for inflammatory rheumatism, taken internally at a low dosage. The bark and berries of the coffeeberry were used to induce vomiting, and while some Indian tribes enjoyed the berries boiled and in jellies, other tribes considered them to be poisonous. The Mutsun people of the Monterey Bay and San Juan areas ate the berries raw and called them puruoric.

### ***Quercus agrifolia***

Coast Live Oak. Oak Family (Fagaceae)

For California Indian tribes, members of the *Quercus* genus probably constituted the most important food producing plant in California, with over three quarters of native Californians relying on acorns as a primary daily food. The coast live oak, with wide-spreading limbs and dense evergreen leaves, was one of the more desirable species of oak and is a common presence here in the Santa Cruz landscape. Acorns contain high levels of bitter tannins and therefore cannot be eaten raw, but must be ground into a powder and leached with fresh water until the tannins are washed away. There were many different ways to make the acorns palatable, but all techniques followed the same basic pattern. First the acorns were dried, the kernels were removed from the hulls, and then were either roasted or left raw and made ready for pounding. The kernels were pounded with stone mortars and pestles until the versatile acorn meal was produced. The acorn meal was then sifted and leached in fresh water many times until the tannins were gone and the water ran clear. Once the acorn meal was prepared, it could be used to make a variety of foods such as acorn soup, acorn mush, acorn bread, and a beverage that was used much like coffee. Acorns were an important staple crop because they are plentiful and nutritious, containing more fat than corn, high amounts of vitamins A and C, and essential amino acids that make them a prized food plant. Beyond their uses as food, acorns were important culturally and medicinally as well. The high tannins in the bark, acorns, and galls were helpful in treating bladder infections, washing open wounds, reducing inflammation, and regulating the bowels. Some tribes, such as the Luiseño, used the mold that grew on acorn mush as an (apparently) effective antibiotic, long before the discovery of penicillin in Western medicine.

### ***Ribes* spp.**

Currant, Gooseberry. Gooseberry Family (Grossulariaceae)

There are thirty species of currants and gooseberries recognized in California; all have leaves that resemble a maple leaf with rounded points, and all have small red to purple berries that are considered edible. California Indians used berries from many members of the *Ribes* genus to make jellies, preserves, beverages, and dried fruit snacks. Some species of *Ribes*, such as *R. aureum*, or the golden currant, and *R. malvaceum*, the chaparral currant, were especially prized as a tasty treat, while others, such as *R. cereum*, or bear currant, were edible but were mostly used as an emetic to induce vomiting. Pemmican was made by pounding ground meat, fat, and dried *Ribes* berries together, and it was considered a staple of the California Indian diet. Members of the *Ribes* genus were also used medicinally. The Paiute and Shoshone Indians used the inner bark of *R. aureum* as a poultice on sores and swelling. The Paiute used the powdered bark on sores and would chew on a piece of the root to ease sore throats. Currants and gooseberries can still be found in the California landscape today, and many contain high levels of vitamin C, phosphorus, and iron. Today you can find currant or gooseberry products in stores, though they may be from European varieties. Currants have been used by people worldwide to make jams, beverages, and dried fruit, though a majority of these are from the “currants” that are dried from currant-sized, small grapes.

***Clinopodium douglasii***

Yerba Buena. Mint Family (Lamiaceae)

Yerba buena is an understory vine that grows in mats and has opposite leaves. San Francisco was originally named after this sweet smelling, mint tasting plant, and although it was once widespread, today patches of it grow mostly in the redwood forests and woodlands of California. The leaves of yerba buena make one of the tastiest wild teas, and the natural spearmint-like flavor is soothing to the stomach. Yerba buena tea has been used by many cultures as a remedy for colds, fevers, stomach ache, gas, colic, menstrual cramps, and insomnia. The Chumash Indians used yerba buena to treat parasitic worm infections, and they also rubbed the leaves on themselves as a deodorant before hunting. If you would like to use this medicine, it is recommended that you plant some yerba buena in your garden and refrain from gathering in the wild, since its habitat and range have been affected by invasive species and habitat destruction. It is not the most rare native medicinal, but planting your own will help wild populations.

***Grindelia spp.***

Gumplant. Sunflower Family (Asteraceae)

This cheerful plant with yellow flowers gets the name gumplant from its sticky buds that were once chewed “like gum.” We’ve tried it and it wasn’t pleasant or like chewing gum. American Indian groups used the sticky buds and flowering heads Native American Uses of California Plants: Ethnobotany Arboretum --- University of California, Santa Cruz for respiratory, skin, urinary, and digestive ailments such as asthma, bronchitis, kidney problems, bladder infections, poison oak inflammations, and general cuts, sores, and swellings. Gumplant is useful as an antispasmodic and expectorant because it relaxes bronchial passages, clears mucus, and desensitizes the bronchial nerve endings, making breathing easier. The Shoshone and the Blackfoot Indians of California used gumplant as a remedy for colds, making a medicinal tea from the leaves and especially the sticky flowers. Gumplant was also popular in California Indian medicine as treatment for poison oak inflammations because it increases surface blood supply to skin tissues and contains antimicrobial agents, thus stimulating the healing of tissue and the easing of inflammation. Gumplant is still used today as a modern remedy for poison oak; it is the main “itch relieving” ingredient in “Tecnu Extreme”, a mainstream skin product manufactured as a wash for poison oak and ivy

***Asarum caudatum***

Wild Ginger. Pipevine Family (Aristolochiaceae)

Wild ginger has glossy, dark green, heart shaped leaves about four inches across. It is a common sight along the damp, shady soil in mixed conifer and redwood forests. Various California Indian tribes used the warmed fresh leaves as a poultice to bring boils to a head. Similarly, a poultice could be used to relieve toothaches. Wild ginger was among the various plants that Native American Uses of California Plants: Ethnobotany Arboretum --- University of California, Santa Cruz California Indians used as a sedative for nervousness, insomnia, and hysteria, and stems were placed in a baby's bed to promote calming and to relieve illness. A moist, soft poultice of the plant was also applied to a newborn's navel to prevent infection. A tea made from the leaves was used as a wash for sores and a tea made from the roots was drunk for indigestion, colds and constipation. Although some California Indians used this plant internally, today it is not recommended to take the plant internally due to possible mutagenic effects.

***Artemisia californica***

Coastal Sagebrush. Sunflower Family (Asteraceae)

The coastal sagebrush smells similar to the mountain sagebrush (also on the ethnobotany tour), but has green to silver threadlike leaves, and grows along the California coast and in chaparral areas below 2,500 feet. The Luiseño and Cahuilla tribes used coastal sagebrush in girl's puberty rights; smoke from the leaves purified and perfumed the skin and clothes of the young girls in the ceremony. A tea of the stems and leaves was also used by women at the beginning of each menstrual period and after giving birth. For respiratory ailments, a decoction of the leaves and stems was used externally for the relief of colds, cough, and asthma, and a decoction was taken internally for bronchitis. Some tribes used a decoction of the plant as a bath for rheumatism. Some Indians of the California coast used the leaves to relieve tooth aches and as a poultice for wounds, and the Cahuilla chewed and smoked the leaves mixed with wild tobacco. The pungent smell of the coastal sagebrush makes it effective as an insect repellent, and some California Indian tribes wore necklaces of the stems to ward off bad spirits.

***Artemisia douglasiana***

California Mugwort, Douglas's Sagewort. Sunflower Family (Asteraceae)

California Mugwort is an erect and aromatic plant, growing to be three to seven feet, with small, inconspicuous flowers that form terminal clusters. It has been used medicinally and ceremonially for thousands of years around the world, and the plant has been prized for its calming, sage-like scent. The Paiute people used California Mugwort ceremoniously as a wash when coming out of ritual dances. Some considered mugwort to be a magic plant, and Chumash, Paiute, and other California Indian tribes burned or inhaled smoke from the leaves to promote healthy sleep, sacred dreams, and to ward of ghosts or evil spirits. California Indians burned mugwort and inhaled the smoke to treat flu, colds, and fevers, and the Chumash chewed the leaves to relieve tooth aches and gum pain. The leaves, dried, fresh, or burned, were used as an insect repellent and were placed in food storage containers to keep pests away. A tea of the plant was used to relieve asthma, rheumatism, gastric ailments and stomachaches, and urinary problems. It can be especially useful as a treatment for women's ailments such as premenstrual syndrome, painful menstruation, difficult childbirth, and menopause, however due to its powerful effects, should not be taken when pregnant. The fresh leaves have been used to treat and prevent poison oak inflammations. Mugwort contains a compound called thujone which is said to induce hallucinations and convulsions. When mugwort is smoked or taken as a tea, very little thujone is present. However, extracts of mugwort made with alcohol are (generally) not recommended, as they can be too concentrated and potentially dangerous.