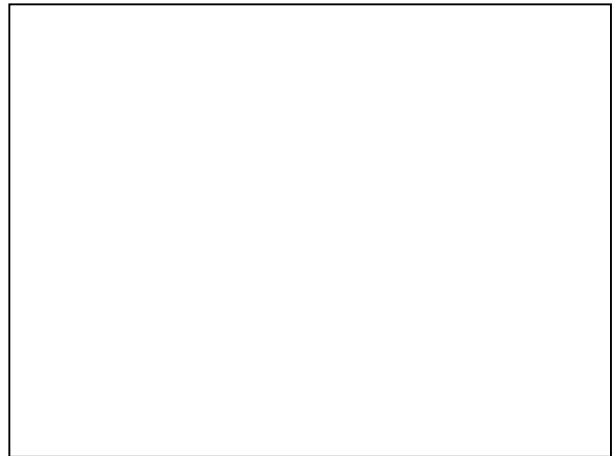


The Kumeyaay also used willow branches to make bows and arrows: their principle weapon for hunting and defense. Arroyo willows (*Salix lasiolepis*) were used to make bows, and the bowstrings were made from deer ligament. Arrows were also made from willows, and either stone or wooden arrowheads were used to hunt for small game.

The willow tree also provided clothes, bedding and medicine for the Kumeyaay. The soft inner bark from the willow was pounded and used to make women's skirts as well as mattresses. The bark, leaves and branches contain salicin, which is a form of the main ingredient in aspirin: salicylic acid. The Kumeyaay chewed these parts of the tree as a pain reliever.

Chamise (*Adenostoma fasciculatum*) branches were used for bow and arrow shafts. They were also used for torches and the roots and large braches used for firewood.



The Kumeyaay used the **Southwestern Spiny Rush** (*Juncus acutus*) to weave coiled baskets. These baskets were used as storage containers and as shipping baskets to carry shellfish from the ocean to their encampments.

The **Scrub Oak** (*Quercus dumosa*) had a wide variety of uses. Acorns were ground and used as emergency food. Branches from this tree were made into cradleboards and baskets to store acorns, and the galls were broken up and made



into eyewash and medicine for sores and wounds.



This plant is called **Lemonade Berry** (*Rhus integrifolia*) because, when ripe, the berries are coated in a substance that tastes like lemons. The Kumeyaay soaked these berries in water to make a tasty drink.

The Kumeyaay used the **Wild Cucumber** (*Marah macrocarpus*) for fishing. The Kumeyaay would dig up the roots, mash them a bit, and then throw them in the water to stun the fish.

The seeds of this plant also provide an oily ingredient that was perfect for pictograph paints. It is thought that pictographs have been used in puberty rites and for religious purposes.



The Kumeyaay ate the berries of the **Toyon** (*Heteromeles arbutifolia*) cooked or raw. Birds like them also.





The leaves from **Black Sage** (*Salvia mellifera*) were used by the Kumeyaay to season their food. The seeds were also parched, ground and eaten.

The dried pods from **Bladderpod** (*Isomeris arborea*) were pulverized and used as a condiment.



The spines from this **Coastal Prickly-Pear Cactus** (*Opuntia littoralis* var. *vaseyi*) were used to apply tattoos, using charcoal as a pigment. Women sometimes tattooed foreheads, cheeks, arms, and breasts and men were sometimes tattooed on the legs. The plant also supports a scaly insect called a cochineal, which when crushed produces a red dye. When the Kumeyaay weren't using the



prickly-pears in these manners, they ate the fruits and paddles.

The seeds from the **White Sage** plant (*Salvia apiana*) were ground for mush and both the seeds and the leaves were used as a condiment. Tea from the white sage was used to treat colds, flu, respiratory ailments, and poison oak. The leaves were eaten, smoked or used in a sweathouse to cure colds. The leaves were also burned to purify hunters and their weapons.



Leaves from the **Coastal Sagebrush** (*Artemisia californica*) were brewed into a tea to relieve the Kumeyaay from stomach cramps and pain from childbirth. It was also used as a flea repellent and to mask a person's scent while hunting.

The Kumeyaay boiled the leaves from the **Laurel Sumac** (*Malosma laurina*) to bathe women with at the time of childbirth.





The Kumeyaay used the leaves from **California Buckwheat** (*Eriogonum fasciculatum*) to cure headaches and stomachaches, and the tea was said to help shrink the uterus after childbirth. These leaves were also used as mouthwash, and the tea was said to strengthen teeth and gums. It was also used as an eyewash.

Cattails (*Typha sp.*) were mashed into a paste and applied to burns, boils, bee stings, and poison ivy rashes. The paste helped to rid the area of infection and had a soothing effect. The leaves of cattails were also made into mats and used in thatching the roofs of their homes.

