

## THE RETURN OF TRADITIONAL WAYS: UCSC project targets medicinal plants

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Ascension Solorsano de Cervantes, traditional healer, seen in a photo taken by J.P. Harrington.  
PHOTO COURTESY OF CSU FRESNO

As she approached the last years of her life, Ascension Solorsano de Cervantes moved to her daughter's Monterey home. She bought a new black silk dress for burial and called her family close to say goodbye.

It was the summer of 1929 and, at age 83, Solorsano was the last member of the Amah Mutsun tribe versed in the traditional ways of medicine. People from hundreds of miles away sought her care.

But as she prepared for death, Solorsano received another visitor — John Peabody Harrington, a Smithsonian linguist who spent his life recording native languages and customs.

"You are the vehicle of God that comes to me in the 11th hour to save my knowledge from being lost," Solorsano told Harrington, according to historic documents. "I will teach you up to the last day and see if I can tell you all that I know."

Over the next four months, until she took her final breath, she did just that.

Now, a joint project of the Amah Mutsun tribe and the UC Santa Cruz Arboretum is trying to collect and cultivate the more than 100 plants — many considered medicinal by the tribe — that Solorsano described to Harrington. They are hoping that this garden will help them re-learn their traditional ways.

Val Lopez, chairman of the Amah Mutsun tribal council, said that the 600-member tribe, which includes Solorsano's great-great-grandson, now uses only five to 10 plants medicinally.

"We had a lot of knowledge of plants gained over thousands of years," Lopez said. "But our cultural knowledge was broken during the mission times."

The Amah Mutsun are direct descendants of tribal groups forced to live and work in the San Juan Bautista and Santa Cruz missions for decades beginning in the late 18th century.

Before being interned in the missions, this diverse group of Indians spoke about 40 distinct dialects. They were broadly termed "Ohlone" or "Costanoan" by Spanish settlers, names they had never applied to themselves.

The Relearning Garden will help the Amah Mutsun teach their children plant identification and harvesting. Where plants are well-established, they will be able to collect them for medicine, ceremonies and cultural activities such as basket weaving.

While many of the plants are still found in the hills, access laws make it difficult to find and gather plants on public and state lands, said Stephen McCabe, director of education for the arboretum.

"Even if you can find a plant by the side of the road," McCabe said, "how do you know if it was sprayed with pesticides or not? It might not be safe to use or consume."

The garden will become a living ethnobotanical exhibit. The term "ethnobotany" — studying the human uses of plants — has been used for about a century. Modern ethnobotanists work worldwide, with the tropics providing the biggest hot spots for research. But the practice of observing and cataloging how plants are to be used for food, medicine, worship, textiles, dying and building dates back thousands of years.

"Knowing a little local ethnobotany gives you a connection to the place you live," said Dr. Elise Hughes, a staff physician at the UCSC Student Health Center.

But like many physicians, Hughes said, she wouldn't recommend a plant to a patient because plants work in complex ways. "You have to be very well-trained to know which plant to use, which part to use and how to prepare it," she said.

This knowledge is just what the Amah Mutsun had and, to a large extent, lost when the Spanish controlled California from 1769 to 1833. Many died of disease during their confinement in the missions, and none were allowed to practice traditional ceremonies and belief-based medicine. Knowledge of the traditional ways plummeted.

And that's why the information Solorsano gave to Harrington on her deathbed will prove so valuable. She "provided us an outstanding list that forms the base of what we need to re-learn," Lopez said.

The project started a year and a half ago with a \$40,000 grant from the Christensen Fund of San Francisco, which gives money to support cultural and biological diversity. The project's goal is to collect and cultivate many of the plants Solorsano described.

A second goal, said Rick Flores, the project's coordinator and native plant curator for the arboretum, is to educate the public about native plants and traditional ways.

The garden, still expanding, will be dispersed throughout the arboretum's 40-acre holding. Plants in the Relearning Garden will be put in the habitat they belong.

"People will not only get to see which plants are important to the Mutsun," Flores said. "They'll also be seeing the habitats they came from."

Flores said the project has already collected about half of the approximately 100 species on Solorsano's list. But those, he said, are "the easy ones." The remaining ones will be more difficult to find and cultivate. "From start to finish, this is going to take decades," he said.



Rick Flores, coordinator of a joint project of the Amah Mutsun tribe and the UC Santa Cruz Arboretum, stands near the UCSC garden where plants believed to be medicinal by the tribe will be grown.

(DANIELLE VENTON/Special to The Herald )

"I find this project motivating because I want to get people excited about plants," McCabe said. "Everybody eats, needs a place to sleep and, at some point in their life, will use herbal or Western medicine. People can relate to issues of food, shelter and health. When people understand the human uses of plants, they'll be more interested in conserving them."

As part of educating the public, Sara Reid, a graduate student at UC Santa Cruz, last year wrote a booklet detailing the uses of 19 native plants used by many tribes

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

Don't expect it to contain the full riches of Solorsano, though. The tribe wants to keep some information private.

"We have people who are trying to do research, and make money off our traditional plants and medicines," Lopez said.

He said it is not only the plant that is important, it is also the method of collection, the prayers said over it and the way it is administered.

"We don't want people to misuse it," he said. "The Creator gave us these plants to heal us and take care of us, but not to profit."

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## Medicinal plants

A closer look at some of the plants in the UC Santa Cruz Arboretum

**Bearberries (*Arctostaphylos uva-ursi*):** California Indians ate the berries and used the bark and leaves as an astringent and antiseptic. The active chemical, arbutin, is still used today in modern medicine to treat urinary tract infections.

**White sage (*Salvia apiana*):** In the mint family, it was used by tribes such as the Chumash Indians as a plant to burn while praying. They believe it protected, cleansed and healed the body and soul. Teas from white sage also soothed sore throats and calmed stomach aches.

**California Oak Acorns (*Quercus spp.*):** The most important daily food item for the majority of California's Indian tribes. A long preparation process was needed, however, to make the acorns palatable. The oak bark also had many uses, such as an antiseptic and anti-inflammatory medicine.