## AMLT Newsletter – Spring 2017



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## AN INTRODUCTION FROM CHAIRMAN VALENTIN LOPEZ

Dear Friends,

Our Amah Mutsun Land Trust (AMLT) is pleased to bring you the first edition of our AMLT Newsletter. Our Amah Mutsun Tribe is comprised of the documented descendants of the indigenous peoples taken to Missions San Juan Bautista and Santa Cruz in the greater Monterey Bay area of California.

As Chairman of the Amah Mutsun Tribal Band, I would like to introduce you to our Tribe and Land Trust. To understand the Amah Mutsun it is important to understand our creation story. Our Creation story occurs at the peak of Mount Umunhum, which was the highest peak in the Santa Cruz Mountains. Mount Umunhum translates to the home, or place, of the hummingbird in our Mutsun language. All life, plants, wildlife, people, wind, fog, etc. were created at Mount Umunhum; they are our relatives.



Mt. Humunhum
Photo courtesy Don DeBold, CC BY 2.0

#### A Pact with Creator: maintaining the balance of the world

Creator made man and woman last, and gave us the ability to think critically and to solve problems. Creator gave us these abilities because Creator also gave us the responsibility to take care of all living things. From this point forward, our ancestors worked for thousands of years—perhaps 800 generations or more to fulfill the obligations of this Sacred Covenant.

Our ancestors became responsible stewards of the land and ensured they provided the foods and habitats that all wildlife needed to thrive. Our ancestors learned to use the gifts Creator gave us, including using the plants as our foods, medicines, basketry materials and much more. Another gift provided to us was fire. Fire allowed us to cook our foods, keep us warm and to manage landscapes so grasslands would remain open and provide seeds for birds and other seed-eating animals.

Our ancestors did not domesticate plants, nor attempt to alter, control, scar, or dominate Mother Earth. Their human imprint was nuanced and included judicious pruning, sowing, and tilling, replanting bulblets and cormlets and dispersing seeds. Our ancestors developed loving and trusting relationships with all our relatives. Most important to our ancestors were our prayers and ceremonies. We have ceremonies for migrating birds and fish, ceremonies for elk and bears, and ceremonies for healing and renewal. Our relationships with all living things combined with our prayers and ceremonies kept balance in our life and our world for millennium.

Resistance and Survival: The Amah Mutsun through colonization

In 1769 our world changed; this is the year Spain and the Catholic Church entered our territories. At first contact there were over 30,000 "Ohlone" Indians who lived in the territories from San Francisco to Monterey. Spanish soldiers, at the direction of mission priests, violently took our ancestors to the missions so they could be converted to Catholicism and made into citizens of Spain.

When the mission period ended in 1833, less than 100 Ohlone Indians survived the brutal conditions of the missions. Mission conditions included slavery; whippings; torture for extended periods of time by being shackled or put into stocks; separation of women, men and children into locked dormitories; and Spanish soldiers repeatedly raping women and children. The horrible conditions and disease resulted in the deaths of over 150,000 people—50% of all California Indians.

The Missison period was followed by the Mexican period of more brutality and slavery. Next was the California / American period which included state-sanctioned genocide. There were executive orders calling for the extermination of California Indians; one of the first treasury bonds issued by California was for the purpose of exterminating California Indians. This period included bounties paid for the killing of Indians; indentured servitude; slavery; and legalized kidnapping and selling of Indians, mostly children. At the turn of the century in 1900 the California Indian population had been reduced by over 96%.

Today, our Amah Mutsun Tribal Band is a federally unrecognized tribe. After our Tribe and most other California Tribes signed treaties in 1851 for 8,500,000 acres of land, California legislators passed a resolution asking that the Senate and President not ratify the Indian Treaties and then sent a delegation to Washington DC to lobby for the treaties to not be ratified. President Fillmore ordered that the California Treaties be sealed for 50 years; these treaties have never been ratified. This action left many, many Indians and Tribes landless, and because they are not federally recognized, they receive no assistance from either the federal or state governments.

#### Return to the Path: Relearning traditional stewardship

In 2005 Tribal Elders attended a Tribal Council meeting and said Creator has never rescinded the directive that we take care of Mother Earth and all living things. They added that we must find a way to return to this path. From this time forward we began developing partnerships with the National Parks Service, California Department of Parks and Recreation and many other organizations. Our work included relearning the traditional stewardship practices of our ancestors and restoring our relationship with all living things and restoring our prayers and ceremonies.

In 2013, our Tribe founded the AMLT. We could not have done it without the mentorship of our fiscal sponsor, Sempervirens Fund, plus the generous support of The Christensen Fund and Kalliopeia Foundation. Today our land trust is actively working to protect and conserve our sensitive cultural sites; research and restore our traditional stewardship and land management knowledge and traditions; educate the public on the importance of traditional Mutsun stewardship; and to honor our ancestors and fulfill our sacred covenant with Creator. The work of our AMLT is helping our members heal from our historic trauma as it restored our identity and connects us to all that is important.

Ho!

Chairman Lopez

# AMAH MUTSUN LAND TRUST FEATURED IN BAY NATURE MAGAZINE

Read the most recent article published in Bay Nature Magazine on the work of the Amah Mutsun Land Trust. The article, titled "Rekindling the Old Ways: The Amah Mutsun and the Recovery of Traditional Ecological Knowledge," is available at: <a href="https://baynature.org/articles/rekindling-old-ways">https://baynature.org/articles/rekindling-old-ways</a>. This article was written by award-winning environmental journalist Mary Ellen Hannibal.

# INDIGENOUS STEWARDSHIP & CONSERVATION IN A CHANGING WORLD

By Nicole Heller, AMLT Research Associate

Nicole Heller is the Director of Conservation Science at Peninsula Open Space Trust. She received her PhD in Biological Sciences from Stanford University. She has worked on biodiversity protection in California ecosystems for nearly 2 decades, and has published widely on topics ranging from climate change adaptation to ant behavior.

When I first learned the science of conservation biology as a student in the early 1990s, the emphasis was on getting people out of the equation. "Ideal nature," the thing to be restored, did not include human beings. Conservation work was about protecting the land, removing all human impacts, and then leaving nature alone to return itself to its historic composition.

Leaving nature alone to heal itself, however, has not proved viable. Persistent stresses of the modern globalized landscape, including exotic invasive species that tend to dominate systems, the loss of top predators, and now climate change, have made it hard for species to survive in their historic locales. Now more than ever conservationists find themselves needing to intervene in ecosystems in order to sustain native plants and animals.

As I have written about elsewhere, this may seem like a crisis and a paradox: "natural" is both an absence of human influence, and simultaneously that which can only be maintained through human influence (see Heller and Hobbs 2014). But it ceases to be a paradox when we realize that this biodiversity that we seek to protect is itself *the product* of human interaction.

The work of Kat Anderson, and other ethnoecologists and anthropologists working around the world, is changing the way we understand biodiversity protection. Indigenous people have been intimately involved in shaping ecosystems. Through burning, pruning, tilling and seeding, they fostered the species they cared about and controlled the species that were not useful or would dominate if not tended. This Traditional Ecological Knowledge (TEK) provides a different way to think about people in nature. Within this way of thinking, California Indians were a keystone species within California ecosystems and the disruption of these people and their relationships with other creatures has been part of what has driven biodiversity decline. Restoring people's ability to play this role in ecological systems may be key to maintaining biodiversity in the modern landscape.

Today's landscape is different than the historic landscape. The climate is changing rapidly because of greenhouse gas emissions. The density of people is hundreds to thousands of time greater than it was 500 years ago in California. Methods of stewardship have to look different, but they can be built on the types of relationships between humans and other creatures that were practiced by California Indians.

The practices the Amah Mutsun Land Trust is sharing provide a model of how to relate to the land adaptively, gently, and with humility. They provide a model that will be useful to foster native biodiversity with an open mind and open heart through the rapid change of the 21st century. TEK provides a model for developing a practice that can bring more people into conservation work and help to bridge the divide between nature and human (or, also, culture) that drives many of our environmental and social challenges. I appreciate the opportunity to work with the AMLT to re-learn these relationships, adapt them to the modern landscape, and integrate them into conventional conservation practice.

HELLER, N. E. and HOBBS, R. J. (2014), Development of a Natural Practice to Adapt Conservation Goals to Global Change. Conservation Biology, 28: 696–704. doi: 10.1111/cobi.12269

## YERBA SANTA, A MEDICINAL PLANT EXTRAORDINAIRE

By M. Kat Anderson, AMLT Technical advisor



Yerba santa (Eriodictyon californicum)

<u>Photo</u> courtesy <u>Franco Folini</u>, <u>CC BY 2.0</u>

M. Kat Anderson is a prominent ethnoecologist currently working with the USDA Natural Resources Conservation Service. She has worked alongside California Indian people for over 25 years to document and support indigenous stewardship. Dr. Anderson is author of the book "Tending the Wild: Native American Knowledge and the Management of California's Natural Resources," as well as many articles about California ethnobotany and traditional resource and environmental management.

One of the more common shrubs growing in California's chaparral and woodlands, yerba santa (*Eriodictyon californicum*) is also one of the state's preeminent medicinal plants. In pre-mission California, there was hardly a tribe with yerba santa in its territory that did not use this plant for medicine. Its leaves were gathered up and down the state by diverse tribes in northwestern California, the Sierra Nevada foothills, southern California, and by the ancestors of the Amah Mutsun on the Central Coast. Today, the Amah Mutsun continue to gather and prepare yerba santa in part through the activities of the Amah Mutsun Land Trust.

#### Traditional Uses

People knew yerba santa by its varnished leathery leaves with serrated edges and its coiled inflorescences of showy tubular whitish to pale-blue flowers. They gathered its leaves and used them to treat a surprisingly broad range of ailments: colds, throat and bronchial affections, grippe, asthma and other respiratory ailments, catarrh, stomach aches, vomiting, diarrhea, aching or sore spots, wounds, abrasions, and the pain and swelling associated with fractured bones.

The Amah Mutsun applied warmed yerba santa leaves to the forehead to treat headaches, chewed or smoked the leaves to relieve asthma and coughs, made a decoction for rheumatism and tuberculosis and purification of the blood, and made a tea to wash the eyes and treat eye ailments. They combined yerba santa with other herbs to heal infected sores.

Today the Amah Mutsun and other tribes are teaching the virtues of this plant to the younger generations, continuing ancient healing traditions. In summer 2015, the Amah Mutsun Land Trust Native Stewardship Corps gathered yerba santa on the flanks of Mt. Humunhum, the location of the Mutsun creation story. In fall 2015, Native Stewards again gathered and tended yerba santa, and relearned its use in a traditional remedy.



Yerba santa as it appears in the USDA's 1911 "American Medicinal Leaves and Herbs"

#### "Holy Herb": Yerba santa and European settlers

The plant's Spanish name (*yerba* means "herb" and *santa* means "sacred") dates to the time of the Spanish missions, when this "holy herb" was an important part of the padres' herbal medicine repertoire. It held an esteemed place alongside herbs brought from Europe, Asia, and Mexico, such as rosemary, horehound, foxglove, Castillan rose, saffron, cilantro, and castor oil. Yerba santa proved efficacious in the missions for treatment of headaches and many kinds of lung problems.

It was the Indians, of course, who taught the missionaries this plant's medicinal virtues. Dr. Cephas L. Bard (1894) an early western physician, said of the California missionaries: "they admitted in the treatment of diseases the superiority of the virtues of the domestic remedies in the hands of the natives, by not only applying to them, but by entrusting them, at times with the care of those in the infirmaries."

Early non-Indian settlers were also taught the plant's healing powers; they valued it for its expectorant properties, employed it for throat and bronchial ailments, and also used it as a bitter tonic. Because its odor was aromatic and its taste balsamic and sweetish, it was used to mask the repugnant taste of other medicines.

By the late 1800s, yerba santa was widely accepted by American physicians as a leading agent for all respiratory conditions, for treating kidney conditions and rheumatic pain, and for healing hemorrhoids when other sources failed. On this basis, the United States medical establishment adopted it as an official medicine in the United States Pharmacopoeia. In an 1894 speech before the Southern California Medical Society, Dr.

Cephas L. Bard, the society's outgoing president, called yerba santa one of the three "most valuable vegetable additions which have been made to the Pharmacopoeia during the last twenty years."



Yerba santa displaying insect damage and sooty fungus.

Photo courtesy Bri Weldon, CC BY 2.0

#### Yerba Santa and Fire: Rejuvenating potential

Indian and non-Indian herbalists have strict requirements for the use of yerba santa in their medicines: they want relatively young, shiny leaves free of any disease because these contain more of the plant's active principles. Today, mature yerba santa plants are often spindly, with leaves only at the tips of the branches and bare limbs below, and the leaves frequently have a high percent of damage from a pathogen called sooty fungus. We know that in past times, California tribes regularly burned plant communities supporting plants valued for food, basket making, and medicine, and often used fire on specific patches of valued plants.

The fire had the effect of rejuvenating the plants. It ensured good production of the most useful plant parts, and eliminated diseases. It is therefore likely that in the past, yerba santa benefitted—at least indirectly—from Indian burning. Yerba santa seeds remain viable in the soil for decades, and they germinate readily during the first spring after a fire. Further, older plants can regenerate from rhizomes following the burning of their above-ground parts.

Participants in the 2015 Native Stewardship Corps confirmed the problem of overgrown yerba santa during the course of stewardship and gathering activities. They found that untended plants in mature patches were virtually unusable, having sooty fungus and significant insect damage. Recently mowed patches, however, yielded the fresh new growth and healthy leaves the Stewards required for collection.

Given its fire-adapted nature and the value assigned to it as a medicine, it is likely that many Native Californians even targeted yerba santa for burning, and did so specifically to keep the plants healthy and maximize their production of leaves that could be harvested for medicine. Although we do not have a lot of direct evidence of burning yerba santa for medicine, we do know that the Pomo periodically burned yerba santa patches to kill pathogens and add nutrients to the soil. Perhaps such use of fire is the secret to restoring the health of yerba santa today on traditional lands where it grows.

Indian burning represents an often under-appreciated aspect of the use of native plants for medicinal purposes. It was an indigenous management strategy that guaranteed the existence of an adequate supply of plant material with the proper characteristics. It thus went hand-in-hand with knowledge of a plant's medicinal properties. Today we would do well to appreciate the importance of both of these aspects of native plant use

and to recognize that knowledge of both plants' medicinal properties and their care in their natural habitats originated with Native Californians.

To learn more about how Native Americans enriched the practice of American medicine in the United States and gave us conservation, harvest, and management strategies, see the <u>April 2016 issue of the *Journal of Medicinal Plant Conservation*</u>.

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## NOTES FROM THE NATIVE STEWARDSHIP CORPS

By Abran Lopez, AMLT Native Steward



The author working at Pie Ranch Photo courtesy Rob Cuthrell

The AMLT Native Stewardship Corps reconnects Amah Mustun Tribal members with traditional cultural practices, places, and knowledge through conservation fieldwork, and cultural education. In 2015 we implemented nine weeks of stewardship, research, and outreach work with six Native Stewards. In 2016 we hope to grow this important program to include more participants and more time on the land. Here Native Steward, Abran Lopez, explains what the Native Stewardship Corps means to him and his tribe:

My name is Abran Lopez, I am 33 years old and I am a member of the Amah Mutsun Tribal Band. In 2013, Tribal Elder Tillie Luna invited me to attend an Amah Mutsun Tribal Wellness Meeting in Fresno. Our Wellness meetings are designed to help members deal with personal and Tribal issues and to help us recover from historic trauma.

At that time the path I was on no longer showed promise. I was at a point in my life when I didn't seem motivated by the direction or choices in I had made. It was very uncharacteristic of me to speak up in large groups where I was new; I hadn't been to a Tribal meeting in years. They mentioned they were looking for people to work in the Native Stewardship Corps. To my surprise I spoke up and offered the only thing felt I had of worth to offer the Tribe, my back and my hands. I saw it as a chance to connect to my Indian identity and apply myself to my Tribal community.

It's been three years since I began the work that has become the passion in life. At the time it seemed like an impossible task to connect me in any meaningful way to my traditional Native roots. The offer to help my Tribe in land stewardship and management seemed like a divine sign or an answer to my prayers. It was a turning point in my life.

I'm not educated, I never finished high school, and I seldom had much money. But I've always known that I was a dependable and hard worker and I wanted to help my Tribe. I remember saying, "If you need hands, I'm ready." These words seemed to flow on their own and this was my first step into the path that I now pursue.

I now work as an Amah Mutsun Native Steward. I'd like to share with you my view of what I believe a Mutsun Steward is. Because of our Tribal history, we must revitalize and restore our indigenous knowledge and culture. I remember thinking during initial work outings of removing invasive plants and clearing areas for important medicine plants, that we were doing rather basic tasks. I didn't fully realize the importance of this scope of work or how so many other things would be affected by it. I thought we would just periodically clear out weeds.

I soon gathered that we were working on a sacred site and that our ancestors stewarded these plants for hundreds or perhaps thousands of years. The medicine plants we were tending were important for prayer, ceremony, protection, and keeping our life and our world in balance. The plants also provided protection for our ancestors and for all creatures in the valley that depended on them. As a result of tending this patch of ceremonial plants, their numbers increased to the point where we were able respectfully gather them last year. Now we will see the return of this valuable plant in our ceremony.

Taking this new path in life has given me chances I would not have had before, and introduced me to people I would not have met otherwise. I have worked with firefighters, archaeologists, and traditional culture-bearers, and many others. I feel very grateful to all those who teach and share their knowledge with us, including researchers, volunteers, and Tribal elders, as well as to all those who support the work of the Amah Mutsun Land Trust.

## A SUMMARY OF AMAH MUTSUN LAND TRUST PROJECTS

By AMLT Research Associates Rob Cuthrell, Rick Flores, and Sara French and AMLT Project Assistant Jay Scherf, April 2016

#### Introduction

From archaeological and fire research to educational gardens, the Amah Mutsun Land Trust is bringing indigenous stewardship back to the lands of the Amah Mutsun. Through a range of projects that span the Tribe's ancestral territories, we have forged valued partnerships with conservation organizations, land managers, and research institutions. The diversity of our work testifies to the breadth and importance of indigenous ecological knowledge. Learn more about our current projects below:



Park staff and tribal members consult on the management of deergrass, pictured in foreground.

Photo courtesy Paul Johnson

#### **Pinnacles National Park**

The Amah Mutsun Tribal Band has worked in collaboration with Pinnacles National Park since 2006. The park and the tribe co-developed an experimental project to restore basket weaving plants using indigenous stewardship practices; and in 2011 project partners implemented the first burn for cultural purposes since the mission period in Amah Mutsun territory. Pinnacles National Park and the Amah Mutsun Tribal Band have a Memorandum of Understanding that recognizes the importance of cooperating with the Amah Mutsun on matters of cultural resource stewardship within park boundaries. The Amah Mutsun consult with Pinnacles on interpretation of California Indian history and culture, the significance of the endangered California condor, and the management and restoration of culturally significant species.



Tribal Stewards clearing coastal prairie at Quiroste Valley Cultural Preserve.

Photo courtesy Rob Cuthrell

#### **Quiroste Valley Cultural Preserve**

Quiroste Valley Cultural Preserve is a 225-acre portion of Año Nuevo State Park where the California Department of Parks and Recreation is working collaboratively with AMLT to protect and steward cultural and natural resources. The preserve was created in 2008 due to the presence of significant archaeological, historical, and ethnobiological resources in the valley. Since 2007, AMLT has been working with a multidisciplinary team of scientists to research the relationships between Native people and the Quiroste Valley landscape over the long term. The research suggests that Native people maintained open coastal prairies in this area through frequent landscape burning. Today, most of the landscape has transitioned to shrublands and conifer forest due to lack of active management. Beginning in 2015, AMLT has been working to preserve and expand coastal prairies, as well as to remove selected invasive exotic plants like poison hemlock.



Tribal Steward Abran Lopez removing jubata grass from AMLT's Costanoa Easement.

Photo courtesy Rob Cuthrell

#### **Costanoa Easement**

In 2013, Amah Mutsun Land Trust acquired a 96-acre conservation easement at Costanoa Lodge, adjacent to Quiroste Valley Cultural Preserve. The easement contains a large stand of jubata grass (*Cortaderia jubata*) several acres in size. AMLT has been working collaboratively with Costanoa Lodge to prevent further

encroachment of jubata grass onto the surrounding landscape, with the long term goal of eliminating jubata grass from the easement. In 2015, AMLT Native Stewards manually removed over 600 mature jubata grass plants from about 40 acres of the conservation easement. AMLT will be monitoring the area in the coming years to evaluate the effectiveness of the removal technique and to continue removing resprouting plants.



Cruz Vasquez (left) and AMLT Native Stewards Nathan Vasquez (middle) and Abran Lopez (right) record information about ethnobotanical plants at BLM Coast Dairies property.

Photo courtesy Rob Cuthrell

#### **Cultural Resource Management at Coast Dairies:**

The Amah Mutsun Land Trust is assisting the Bureau of Land Management (BLM) in the management, protection, interpretation, and education of Native cultural resources and sites at the recently acquired Coast Dairies Property (CDP) on the Central Coast of California. We collaborate with BLM in identifying and managing Native American cultural resources found within CDP, as only a limited amount of cultural resource evaluation has been previously evaluated. The AMLT will develop and implement an integrative historical ecological study of portions of the CDP, identify cultural resources, work with BLM land managers to restore and manage degraded cultural resources, create management plans for Native American cultural resources, protect archaeological sites, and develop interpretive programs and outreach materials to promote community education and engagement.



Native Stewards Nathan Vasquez (left) and Gabriel Pineda (right) on the summit of Mt. Humunhum.

Photo courtesy Sara French

#### Midpeninsula Regional Open Space District

Midpeninsula regional Open Space District (MROSD) manages over 60,000 acres in 26 open space preserves in San Mateo, Santa Cruz, and Santa Clara counties. These lands include Mt. Umunhum—the site of the Amah Mutsun creation story—plus over 150 plant species that are important in the Amah Mutsun ethnobotany. Managers at MROSD work with the AMLT to make sure that these sacred sites and resources are honored, protected, and accessible for Tribal relearning and ceremony. Every year Tribal members and AMLT research associates make trips to MROSD in multiple seasons to locate and monitor culturally significant plant species. MROSD is also consulting with the AMLT on developing public access, interpretation, and a ceremonial space on the Mt. Umunhum summit.



AMLT Native Stewardship Corps conducting an archaeological surveys at Cañada de los Osos.

Photo courtesy Sara French

#### Cañada de los Osos Ecological Preserve

Cañada de los Osos (CDLO) is an approximately 5,800 acre property owned by the California Department of Fish and Wildlife, located right in the heart of Amah Mutsun territory. The rolling grasslands, oak woodlands, and verdant springs support abundant wildlife and provide an ideal venue for the cultural learning and stewardship activities of the Native Stewardship Corps. The Native Stewardship Corps spent one week working and learning at CDLO in July 2015 and contributed over 250 hours of volunteer labor and ethnobotanical and archaeological research work to CDLO during their stay. The Native Stewardship Corps plans to return to CDLO to continue their stewardship and research at this significant site.



Tankoak acorns gathered by Native Stewards.

Photo Courtesy Jay Scherf

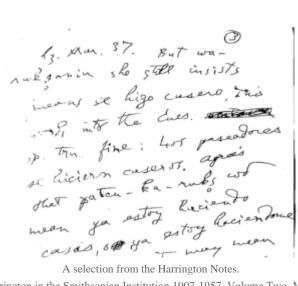
#### **Research Institute of Humanity and Nature**

In 2015, the Research Institute of Humanity and Nature in Kyoto, Japan sponsored two episodes of AMLT Native Stewardship Corps fieldwork. The first episode of fieldwork in February lasted three weeks and focused on conservation work, including removal of jubata grass from coastal prairie on a conservation easement at Costanoa lodge. In addition, Native Stewards carried out vegetation surveys in the Santa Cruz Mountains, began building a native garden at Pie Ranch, and learned ethnobotanical information about native plants.

The second episode of fieldwork in October and November lasted two weeks and focused on health and wellness. A cultural leader from the Salt River Tribe lived with the Stewards for one week during this time and conducted daily ceremonies. Together they talked of issues such as the need to respect elders and women, and how to live one's life by honoring culture. During this episode of the program, Native Stewards gathered traditional foods (such as tanoak acorns) and medicine plants. Native Stewards also tended areas with ethnobotanical resources in Quiroste Valley Cultural Preserve and participated in crafting using traditional plant resources such as tule.

#### San Vicente Burn Research

In 2015, Sempervirens Fund and Peninsula Open Space Trust invited AMLT to develop a research project to document the effects of low-intensity burning on vegetation following a prescribed burn on a ridgeline of the San Vicente Redwoods property. This prescribed burn—the first on Sempervirens Fund or POST property—is intended to reduce understory fuel loads, creating a defensible fire break along Empire Grade. AMLT has established a number of forest inventory plots that will be used to monitor how the burn effects vegetation in hardwood and conifer-dominated woodland areas. The study will also evaluate the effects of burning on hazelnut, a plant traditionally used for basketry material and food. Although the prescribed burn was scheduled for November, 2015, weather conditions prevented it from being carried out. The burn is now scheduled for fall of 2016.



A selection from the Harrington Notes.

From "The Papers of John P. Harrington in the Smithsonian Institution 1907-1957, Volume Two, Microfilm (digitized, PDF format)"

#### **Harrington Notes Transcription**

In partnership with the Amah Mutsun Tribal Band, the Amah Mutsun Land Trust is transcribing 78,000 pages of field notes written by ethnographer John P. Harrington in the 1920s and '30s. Containing Mutsun language, ethnobotany, stories, Tribal history, and more, the notes represent a vast collection of conversations with Tribal elders, including culture-bearer Ascension Solorsano. In the 2015 project year alone, Mutsun Tribal members and UC Berkeley students transcribed approximately 9,000 pages of notes into digital format for use and interpretation by the Tribe. The year's work culminated with the publishing of the first volume of Mutsun Ways, a digital newsletter meant to disseminate information gleaned from the notes to Tribal members.



Tribal Elder Michael Higuera (left) and Chairman Valentin Lopez (right) planting at Pie Ranch. Photo courtesy Sally Kimmel

#### Mutsun Gardens at Pie Ranch and San Juan Bautista State Historic Park

AMLT is developing two new native plant gardens to give Tribal members a place to steward and harvest traditional plants and to share knowledge about plants with members of the public. The Pie Ranch garden, located on Highway 1 near Año Nuevo, was designed by a Tribal member to be aligned with the four directions, and will have a traditional tule hut in the center. The second garden, located at the San Juan Bautista State Historic Park, will include interpretive materials that will help tell the story of the Amah Mutsun to visitors of the San Juan Bautista Mission. We are grateful to the local nurseries who donated plants for the garden, and the volunteers who have been instrumental in planting the gardens this spring.



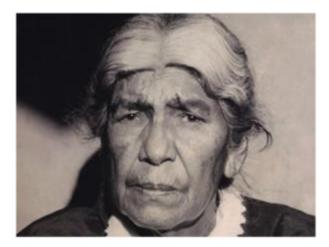
Native Steward Nathan Vasquez starting fire with a traditional elderberry fire drill.

Photo courtesy Rick Flores

### The Amah Mutsun Relearning Program at the UC Santa Cruz Arboretum

The Amah Mutsun Relearning Program (AMRP) assists the Amah Mutsun Tribal Band in their efforts to become land stewards once again by helping Tribal members relearn plant identification, ethnobotany, and native plant resource management. Plants of cultural significance are being grown in the California Native Conservation Gardens where Tribal members can come relearn, tend, and gather plant materials for cultural relearning efforts. Educational events, such as the Work & Learn Gatherings, provide experiential learning opportunities for Tribal members, UCSC students, and community members. Additionally, the AMRP uses interpretation, presentations, and events to educate UCSC students and the general public about the importance of traditional ecological knowledge, the history and contemporary issues of the AMTB, ethnobotany, and California Indian lifeways.

## Wisdom from Ascension



By Jay Scherf, AMLT Project Assistant

Ascension Solorsano was a Mutsun healer and leader who had extensive knowledge of Mutsun culture, language, plant uses, and customs. In the 1920s and '30s she shared her knowledge with the ethnographer John P. Harrington, who recorded over 78,000 pages of her wisdom, which are stored at the Smithsonian. Here are some of her words:

#### Reel 61.1, Frame 93.2

Tree moss, lama de los arboles

There are other types of moss that grow on trees, they grow more and are larger on white oaks than on other trees, they don't grow so much on live oaks. That which grows on old fenceposts and on rocks, they are also called lama.

This lama is very soft and spongy but isn't good for making a bed, it gets all matted up.