Edible, Medicinal, Material, Ceremonial: Contemporary Ethnobotany of Southern California Indians

2010 Calendar
When I gather plants, I try very hard to gather them in a good way. My mom always talked to plants, and she had the most beautiful plants you ever saw. I do talk to my plants when I’m walking around. And I do touch them a lot. They grow magnificently when I do that.

—Barbara Drake
Edible, Medicinal, Material, Ceremonial: Contemporary Ethnobotany of Southern California Indians comes from our work with Southern California Indians and native plants. Deborah Small is an artist, photographer and professor of Visual and Performing Arts at California State University San Marcos. Rose Ramirez is of Chumash descent, a California Indian basketweaver, photographer, and board member of the non-profit American Indian Channel. We are honored to have worked with our knowledgeable and generous consultants and photographic contributors. We have come together to document the contemporary uses of native plants of profound importance to the intellectual, spiritual, and cultural vitality of Indian people.

Literature on Native uses of plants often refers to what people did in the past, using works by ethnographers, anthropologists and others who interviewed and observed Native people in the 19th and 20th centuries. The perhaps unintentional implication of this historical approach is that Native people no longer exist or that they are completely acculturated.

Many of our consultants are repositories of cultural knowledge, eloquent defenders of the land, its sacredness for Indian people and its importance for all species who inhabit it. Some of our consultants quietly create foods, baskets and ceremonies that their ancestors created a thousand years ago. Others are reintroducing native plants into their lives as part of the contemporary revitalization of California native languages, songs, dances, cuisines, and other cultural practices.

Today’s California Indians must confront pollution, pesticides, disappearing waterways and shrinking aquifers, the obliteration of gathering sites on private property, and trespassing charges on their ancestral homelands. Recently, issues about gathering rights have become a source of conflict. Rules and regulations have been created by government agencies without consulting or considering Native people. These have a detrimental impact on their health and culture. This is particularly disturbing because it has been the study of Native people and their cultural practices that has been the basis for much of our knowledge of sustainable land use and management.

The information we have documented is not only for Native communities but for the larger society as well. In Southern California, the heart of Native identity lies in the chaparral and sage scrub covered hillsides, oak woodlands, riparian creeks, and desert regions. Our consultants are fierce advocates for these diverse ecological communities and the cultural traditions that both shape and are sustained by those communities. People are not the only ones affected by environmental damage. Bird, butterfly, insect, animal and plant communities are severely ecologically challenged, with more rare, threatened, and endangered species in Southern California than anywhere else in the continental United States. To save our environment is ultimately to save ourselves and all species with whom we share this particular part of the planet.

We hope that you enjoy the information and images. The Contemporary Ethnobotany of Southern California Indians is not a recipe book. We highly CAUTION the use of these plants: some are toxic or have toxic parts and require knowledge that we are not providing here. For many of our consultants, their knowledge was handed down through many generations. They have a great deal of respect for the power and the importance of native plants.

We do not encourage anyone to wild gather, but we encourage you to plant native plants in your home gardens and in commercial and city landscaping. Two of our favorite nurseries that sell natives are Tree of Life Nursery in San Juan Capistrano and Las Pilitas Nursery in Escondido. Both have great websites, and extremely knowledgeable and helpful people. In addition, some of the plants we feature are available commercially. Both the pads and the fruit of the prickly pear cactus are frequently found in many markets. Chia seeds, now considered a superfood, can be purchased in health food stores and on the web. Useful websites for further research:

Native Seeds SEARCH www.nativeseeds.org
Theodore Payne Foundation www.theodorepayne.org
Arizona Cactus Ranch www.arizonacactusranch.com
The Raw Food World www.therawfoodworld.com
Tree of Life Nursery www.californianativeplants.com
Las Pilitas Nursery www.laspilitas.com

People now speak of the necessity for a major shift to a sustainable society from our unsustainable and ultimately destructive way of life. In Southern California, we have the opportunity to learn from people whose ancestors were here for thousands of years, living in sustainable and ecologically viable communities.

Our consultants are deeply concerned about ecosystems that sustain species other than own. We want to encourage everyone to fall deeply and intimately in love with our oak woodlands and riparian streams, chaparral and sage scrub, to embrace their sometimes harsh but always extraordinary beauty, and finally, to speak for the community in the widest sense possible, on behalf of all species.

There’s no place like home.
According to Justin, deergrass must be burned or cut down periodically to produce the best materials. Burning was a traditional land management practice used by Native Americans for thousands of years. Basketweavers agree that burning is the preferable method of tending deergrass, because it stimulates the growth and vigor of the plant and recycles nutrients by adding ash to the soil. Basketweavers prefer gathering deergrass stems in areas that have recently burned. When burning stands of deergrass is not possible, cutting the plant also works. “Sometime between March and May, I cut the grass to about six inches high,” Rose Ramirez says. “By July, the flowers are coming straight up. The leaves are green and the stalks golden. Very nice.”

Deergrass, *Muhlenbergia rigens*, a perennial California native bunchgrass, is used extensively as the foundation for coiled baskets. A crucial part of making a basket is gathering the materials. According to Abe Sanchez, “deergrass has its seasons. I’ve been able to gather it as late as January or February. Any later and it’s no good.”

Marian Walkingstick gathers her deergrass earlier: “November and December are good months to gather. It’s cold and brisk.”

Deergrass is an important overwintering site for ladybugs. “When I harvest deergrass, Rose says, I tap the stalks to shake out as many seeds as possible for the songbirds that feast on them. I never take all the stalks. I only take a few from each plant so there’s some left for the wildlife.”

Abe prefers to gather his deergrass in its natural environment. “If you grow it and water it too much, the deergrass gets too thick. When it grows in the wild, it’s going to stay thinner, and it’s going to be nice” for basketry.

Justin Farmer describes deergrass: “It has long leaves, grows in clumps, and sends up a fruit head that may be four feet long.”

Deergrass is often used as a landscaping plant instead of the highly invasive pampas grass.
CAUTION: All parts of this plant are highly poisonous.

In Daniel Moerman’s comprehensive Native American Ethnobotany, he writes that *Datura wrightii* was considered the “most universally used hallucinogenic and medicinal plant known to humans” by Luiseño, Kumeyaay, Cahuilla, Tongva, Chumash and other indigenous people of southern California and Baja.

All of our consultants suggest that without an appropriate ceremony and knowledgeable guides, ingesting any part of the datura plant is often foolhardy and potentially fatal. An overdose can cause convulsions, coma, or cardiac arrest.

According to the authors of *Wild Plants and Native Peoples of the Four Corners*, sacred datura is an “hallucinogen, a potent narcotic, a medicine of magnificent potential,” but the authors qualify that potential: “when used by a trained medicine person.”

**FEBRUARY 2010**

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

For Teodora Cuero, the datura leaf is “very medicinal. The leaf is good if you have a thorn that you can’t remove. Without washing it, put on olive oil, and then get the leaf of the toloache real hot and put it on the thorn. The next morning, take it off and the thorn comes out.”

Fabiola Toledo uses a strong tea of datura and yerba mansa to cleanse badly infected wounds and gangrene.

Lori Sisquoc shares with us that she had been told by “Katherine Saubell and Alvino Siva that it’s one of our sacred plants, that the shamans used it for the boy’s coming-of-age. They would prepare it for them to see their vision, what they were going to be, what they were going to do, what their purpose was.” Lori relates datura’s healing properties as well: “You could also use parts of it if you broke a bone, or extreme childbirth, for pain. I guess it takes you out of there. All parts are supposed to be usable. Or what they say is ‘toxic.’ I hate making it sound so bad. So all parts are powerful. I don’t know how to prepare it or anything like that. I just respect it.”

Lori relates how she once used datura in a ceremony: “When I was about 26, I had my, what is it called, when you go up on the hill to pray and you fast. I had that. And the person who was helping me, he put the flower just right here on my wrist. He put a bandana around it so it was real mild. It was really more symbolic, probably.”

Monique Sonoquie tells us that Momoy is the Chumash name for datura: “For the Chumash, Momoy is the grandmother of all the plants. And it’s a really strong medicine. All the elders have told me we don’t use that medicine anymore because it’s too powerful and nobody knows how to use it.”

“It’s a lost art, like a lot of things,” Joe Moreno tells us. “People don’t use it any more, and the ones who did are gone, because it was only entrusted to certain people, to the piula, or shamans. They’re the ones who administered it. I haven’t heard of anybody bringing it back.”
Lori Sisquoc gathers “yucca blossoms in late April, May, just when the buds are opening up.” She removes the stamen, and uses the petals. “We boil those and make a vegetable like cabbage.” When a friend brought her two flowering stalks, she “cleaned and prepared them, then boiled and rinsed them three times. I put them in freezer bags and froze them. We use those as a side dish. You can mix it with scrambled eggs, or you can eat them plain. I’ve done a succotash with onions, tomato, and garlic. You can put them in stews. It’s a very good healthy vegetable. You can eat them fresh too, but you don’t want to eat a lot. They’re very good.”

Rose Ramirez loves the fruit of the Yucca whipplei. “As soon as the fruit forms but before the seeds develop, I harvest them, cut them into pieces, and boil them twice. After they’ve cooked about an hour, I add them to a mix of corn, onion, and zucchini. I cook them together, then sprinkle cheese on top. They’re great! I can’t wait until the season comes around again.”

Southern California Native people make good use of the Mojave yucca, Yucca schidigera, and Yucca whipplei. “For me it’s just a big thrill to get out there and find a good heart,” Marian Walkingstick tells us. “It’s my favorite thing to gather because it’s so dangerous. When you’ve got your hiking boots on and you find a big yucca, you very carefully try to twist the heart out. Sometimes it’s really hard and you have to work at it, but it’s very exciting. This taking of the heart does not mean an end to the plant. The heart grows back. It’s like giving a heart transplant. A second chance in life. It’s a good thing to do.”

Marian uses yucca for the start in coiled basketry. “I shred the leaves as thin as possible with a needle, then hang them out to bleach in the sun.”

Justin Farmer gathers yucca fiber differently “I wait until the plant has died, then pull the leaf away from the stalk. I’ve got an anvil and I take a ball pin hammer. By pounding the fibers on the edge of the anvil, in forty-five seconds I can reduce a leaf to pure fiber.”

Susaana Klietch, Carmen Lucas’ great-grandmother, made yucca sandals, hum’meow, for Carmen’s father, Tom Lucas. “When Tom was a little boy,” Carmen tells us, “he remembered watching Susaana make this pair of sandals. It was about 1907. If you look real close at those yucca sandals, they’re almost an inch thick. That gives you a lot of cushion, both from the hot desert sand and from the small rocks and cactus.”

Willie Pink harvests the highly nutritious stalk before it flowers. “The stalks can get up to 15 or 20 pounds. It’s like pulling salmon out of the ocean. There’s probably just as much nutrition and great dietary fiber.”

Barbara Drake wraps the yucca stalk in foil and bakes it overnight at a very low temperature for up to 10 hours. “When I remove the foil, the yucca had caramelized. It’s just like caramel candy. It is so good!”

In Baja, Teresa Castro eats the flower stalk. “We Paipui roast it and when it’s ready, we eat it like sugarcane. It has a lot of juice, very sweet.”
Teodora tells us how to prepare the tea: “Just get a little or a lot, not important. The tea won’t hurt you, never. You’ll never tell me that it hurt you because you made it very strong, no. So put whatever you feel like but not too much and not too little.”

Boil the tea for “about five or six minutes. It’s good to drink, hot or cold.”

We make a delicious and healthful iced tea from the cultivated wooly blue curls, *Trichostema lanatum*, plants in Deborah Small’s garden.

We visit elder Teodora Cuero, traditional leader of the Kumiai Indian community of La Huerta. Teodora refers to wooly blue curls as romero, and tells us how good it is for the memory: “I know where I put my things. I remember where I hide money. I know where I hide everything because it cures the brain. It is the best thing I know.”

In Yumayk Yumayk, Villiana Calac Hyde relates a story about how her mother-in-law cured her family using wooly blue curls “during the first flu of 1917. People were dying of it in droves.” She made tea for them and they also inhaled “the tea vapors through their noses. That loosened all their mucus.” Her mother-in-law said: “It kept us alive.”

In Temalpakh, Katherine Siva Saubell writes that Cahuilla people made a decoction of the leaves and flowers for stomach ailments as well.

Teodora tells us it’s best to gather the plant in April and May when it’s flowering. “Everything works, the leaves, the flowers, everything. Right now it’s in flower, and the flower is best. We drank a lot of tea when we were young. My parents loved it.”

Teodora speaks at some length about the efficacy of romero to revitalize men over 60, “when they’re sleepy down there,” as she phrases it. She tells us women use it as a douche to remain young. Her friend, Kiliwa elder Leonor Farlow, concurs with her and tells us that if romero is used as a “wash for women, they remain girls.”

Teodora tells us that romero is also “good for mal de orina, or kidney infection, and for stomach pain.” Leonor again concurs and tells us “romero is very good for stomach pain.” In Temalpakh, Katherine Siva Saubell writes that Cahuilla people made a decoction of the leaves and flowers for stomach ailments as well.
For contemporary southern California Indian basketweavers, juncus is the most important plant. Many species of juncus grow in California. “I’ve seen it four inches tall,” Justin Farmer states, “and I’ve seen it grow twelve feet tall. The predominant species we use is Juncus textilis.”

_Juncus_, a rush, is a riparian plant. California Indians gather the juncus stems in ways that invigorate the plant, keeping the stands healthy. Not all weavers agree on the best season to gather juncus.

Marian Walkingstick says juncus can be gathered under the oaks “just about anytime of year if you know where to go.”

Abe Sanchez is more specific. “The best time would be May and June. If you’re going to be gathering in the winter, chances of the juncus getting wet or moldy are greater.”

Gathering juncus is just the beginning of the basketweaving process. The juncus must be dried. “It’s a very dark forest green color when it’s growing,” Justin says. “Drying the harvested stems in the sun gives them an important golden color.”

My favorite part about weaving,” Lydia Vassar tells us, “is going out and finding the materials. If you’ve got 12 inches of brown on the bottom, then you’ve struck gold.” Basketweavers use the brown section to create their basketry designs.

Lydia speaks of the sensuousness of juncus. “I love the satiny feel. I love the way my hands glide along on the materials. When I’m weaving with them, or I’m cleaning them, just the feel of the plant bending and changing feels so soothing. I take my green weave baskets, if I’m stressed, and slide my hand along the outside of the basket. It’s as if the basket is stroking my hands more than my hands are stroking the basket.”

For many generations of southern California basketweavers, one of the largest fields for gathering good quality juncus is on the Cahuilla reservation near Anza. Several basketweaving teachers have had the opportunity to use this extensive resource as well.
Recently, **Abe Sanchez** and **Diania Caudell** demonstrated the uses of chia at the Yurok reservation in northern California. “The Yuroks and Karuks and Hoopa people were just thrilled to see chia, because their elders remembered that they used to trade for it,” Diania tells us. “They would put it all over their salmon, meat, and food.”

**Abe** makes chia cornbread and candy with chia, pine nuts, and honey. **Diania** uses his candy recipe for the “drummers and singers at San Luis Rey’s Pow Wows for drumming and singing without the aid of coffee.”

**Abe** has organized chia gathering expeditions which involve a great deal of improvisation—using a flyswatter as seedbeater, plastic bucket as burden basket, and ziplock bag as olla for storage. He compares gathering chia to basketweaving: “We learn as we go. The more we do it the more we learn about it.”

**Salvia hispanica**, a species of chia now widely cultivated, is available for purchase online and at local health food stores. Try adding a tablespoon of chia seeds to cereal, smoothies, lemonade, and salads.

For indigenous people in Mexico, California and the Southwest, the nutritionally dense chia seed was a vitally important staple food. At the Pechanga Indian Reservation nursery, **Willie Pink** shows us a “demonstration area, a chia bed, to create the experience of knowing what a chia patch looked like pre-contact.” Willie’s chia is the regional **Salvia columbariae**.

Chia was “probably more popular, more abundant than acorn at one time,” Willie tells us. The seeds “were gathered, ground into a paste and made into a food.” Chia doesn’t grow as prolifically now “because of the competition with the non-natives. Its main competition is the European mustard” and the destruction of chia’s habitat by development and suburban sprawl.

All of our consultants extol chia’s nutritional and medicinal qualities. For **Lori Sisquoc**, it is “my friend chia.” She tells us, “Our runners had to go from village to village to deliver messages. The trails along their paths had a lot of chia.” **Barbara Drake** calls it a power food, “high in energy, high in protein,” and counts it among her top four plants: acorn, pinyon, hollyleaf cherry, and chia.

Several of our consultants use chia as a medicine: **Barbara** makes “a paste and puts it in wounds. You can clean your eyes out with chia seeds because they’re highly mucilaginous.” According to **Lori**, “We try to promote it because it’s another one that helps with diabetes.

In Baja, **Leonor Farlow** and **Teodora Cuero** toast and grind chia seeds to make agua fresca, or they make a pinole as a stomach remedy and for constipation.
“I have great faith in a seed,” Henry David Thoreau writes. “Show me a seed and I am prepared to expect wonders.” Indigenous people in southern California and Mexico have had great faith in chia seeds for thousands of years and are well acquainted with its many wonders. They gather two kinds of chia, *Salvia columbariae* and *Salvia carduacea*, also known as thistle sage. “In the salvia family,” Willie Pink tells us, “the chia, black sage, white sage and thistle sage are all edible seeds.”

By the time we interviewed Marian a month after the gathering, she had already eaten half of her stash. Thistle sage seeds, she tells us, “give you that little lift you need.” According to Katherine Siva Saubell in *Temalpakh*, the high protein thistle sage seeds were gathered “in great quantities, parched, ground into flour, and mixed with other plant seeds for mush.” One of the spectacles of the phenomenal 2008 wildflower season was the extensive stands of thistle sage on the Cahuilla Reservation, fields of take-your-breath-away beauty as far as the eye could see. We harvested the seeds using both traditional and improvised seed beaters, then winnowed the seeds to clean them.

The health food industry has discovered what indigenous people of California and Mexico have known for centuries. The Nutritional Science Research Institute has determined that chia is a superfood, an “exceptional and unique low-calorie source of Omega-3 fatty acids, dietary fiber, antioxidants, complete protein, iron, calcium and magnesium.” In fact, according to Dr. Wayne Coates, co-author of *Chia* (2005), chia seeds are the highest plant source of the all important Omega-3’s. Eat your chia!!

Abe Sanchez sent a pound each of chia and thistle sage to Dr. Coates. According to his analysis, thistle sage seeds are a better source of protein, and chia a better source of essential fatty acids.

“I prefer the thistle sage seeds, Marian Walkingstick says, “because they’re bigger and they’re nuttier tasting. I love it!” It’s easier to gather as well. “Why would I want to climb a mountain like a goat,” she asks us, referring to the precipitous hillsides where the smaller and more labor-intensive chia often grows. Thistle sage’s home grounds are the gently rolling hills of the high desert. Marian enjoys the camaraderie of a gathering group: “Minnie Tafoya and I were making up songs about the thistle.”

---

**JULY 2010**

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
</tr>
</tbody>
</table>
Rosa californica, the California native rose, is edible, medicinal, and beautiful.

“The petals are actually edible,” Barbara Drake tells us. “Lori Sisquoc and I make wild salads and put the petals on top.”

Petals are gathered from lush thickets of roses, which often grow in moist ground in undeveloped areas. Gathering the flowers seems to stimulate the plant, which in turn produces more flowers.

Barbara uses rose hips to make “really good jams and jellies, and you can boil the hips in water with sugar if you want to make a syrup for your pancakes. It’s usually two to one, two cups of liquid that your plant has boiled in, and then a cup of sugar. You boil it down. So that way you’d be getting your medicine and your sweetener at the same time.”

“For sore throats,” Barbara tells us, “the dried hips can be ground into powder and actually blown into the back of the throat to get the vitamin C back in there.”

“The rose has healing powers for your skin as well,” says Barbara. “We make lotions with powdered leaves, or the crushed dried hips for sunburns or any type of burn. You can use it topically on your skin.” After grinding the plant into a powder, Barbara uses “different vehicles like almond oil or Vaseline, which extract the medicinal properties. Then the lotions are applied directly on the skin.”
In Baja, Teresa Castro gathers nopales: “The new pads are what we eat. We remove the espinas, wash them and cut them into pieces and cook them, throwing out the water three times because it is very salty. When we have lard we fry them with onions and tomato and eat them with tortilla.”

Teodora Cuero makes a jelly from the fruit. After she gathers the tunas she makes a small broom from the escobillo plant. Then she digs a shallow hole, puts in the tunas, and brushes them until the espinas are cleaned off. “Wash and peel them, remove the seeds, and cook the fruit. Don’t add water, put them just like that. Cook over a small fire and stir and stir them. Add a little sugar so it comes out better. When it’s done, put the syrup in a plastic ollita that won’t stick.” This firms up like jelly, which can be sliced and spread on bread or tortillas. “Muy rico,” Teodora adds.

Like many native foods, nopal has significant health benefits. “It has medicine that’s like a band aid,” Lori Sisquoc tells us. “You can slice it in half and use the pad like aloe vera for healing, for burns, cuts and scrapes.” Barbara Drake likes its health benefits: “Eating that gel coats the lining of your stomach and your intestines for people who have indigestion or who are starting ulcers. You can drink that like a milk shake.” Barbara mixes nopal juice with apple juice for a delicious drink. “We promote nopal for diabetics,” Lori adds, “even if they go to the health food store and get capsules, because it really slows blood sugar down.”

After recent fires in California, many people have begun to plant nopal near their homes. A fire resistant plant, nopal functions as a fire break as well as food and medicine.

Minnie and Ray Tafoya planted a crop of nopales years ago at their home to insure that they’d always have a ready supply. Minnie loves to experiment using fresh tuna juice in margaritas and summer drinks with frozen slices of lime and orange.

Joe Moreno remembers eating tunas as a child: “Once we were old enough to have our own pocket knives, we cut them ourselves. We also cut the pads for my grandmother and mom, and they would do the rest.”
“While processing these foods, we want to learn the old ways and how it was done,” Lori Sisquoc tells us, “but we also learn how we can use modern methods. I grind acorns in a grinding rock and process my acorn that way, but I also use my Ultimate Chopper most of the time.”

Marian Walkingstick uses oak as a dye for juncus. “The galls, the acorns and the bark of the oak can be added to an infusion to make a dye.” She uses the dyed strands of juncus to create basketry designs.

Barbara Drake uses the oak bark medicinally. “The bark is an anti-septic wash for sores. You get the tannin out of the bark. You can get it out of the acorn. You can get it out of every part of the oak.” She also uses oak galls, a parasitic growth made by a wasp, to make an eyewash.

According to the Oak Woodland Bird Conservation Plan, “over 330 species of birds, mammals, reptiles, and amphibians depend on oak woodlands in California,” which “may rank among the top three habitat types in North America for bird richness.”

Besides acorn pudding, the flour is included in recipes for breads, cookies and other foods. Leonor Farlow makes coffee from acorns. She chops the nuts of the acorn and roasts them until they turn black. She then steeps them in boiling water until she has a deep, rich “coffee.” Almost any acorn can be used, according to Leonor, but she prefers a semi-sweet one that grows in Baja.

“Oak trees are the hydraulic pump for the plant community,” according to Greg Rubin. “They bring up water from the water table with their big taproot, and that’s spread out through the mycorrhizal fungi.”

Every fourth grader learns that Indians ate acorns, but what they don’t learn is that acorn is still a prized food.

Teodora Cuero grinds acorns in a stone mortar and then leaches the meal by pouring water over it until the tannins are removed. The meal is cooked and is often quite sweet.

The black oak acorn, Quercus kelloggii, is often preferred to make acorn pudding or mush.
In Tending the Wild, Kat Anderson writes about majestic Platanus racemosa, California sycamore trees, “massive enough to create a home for a menagerie.” Her menagerie includes wood-boring beetles, reptiles, small mammals, raptors, and birds. Sycamore trees are bird magnets, providing sustenance for yellow-rumped warblers, cedar waxwings, Cassin’s king-bird, and acorn woodpeckers, among others.

Native landscaper Greg Rubin suggests that sycamores, cottonwoods and alders should be planted for restoration work in riparian areas. Sycamores can grow 6-8 feet in a year, so it doesn’t take long to establish large trees in areas where non-native and invasive species have been removed.

In Santa Ysabel Ethnobotany, Ken Hedges and Christina Beresford note that a decoction of sycamore tea and Ephedra californica was used by the Diegueño/lipai people to treat asthma. In Yumúy Yumúy, Villiana Calac Hyde reports that bark tea was used to speed up labor during childbirth.

In A Dried Coyote’s Tail, Katherine Siva Saubel writes that Cahuilla people used sycamore, along with willow, for building material. They used “sycamore branches, long and thin ones. They would stick them all into the ground. Then they would tie them.” She also relates that her mother-in-law would gather juncus that grew under sycamore trees. “The sycamore trees fall and dye it.”

People have used sycamore wood for thousands of years. According to Lori, the wood is “really good for tools. It’s really strong, hard wood, and also if you dry it real good, you get firewood.”

Hummingbirds also depend on the sycamore, Lori Sisquoc tells us. “The underside of the leaves have that fuzz,” and hummingbirds “put it in their nest.”

Pauline Murillo describes how she gathers sycamore bark to prepare a tea. After rinsing off the bark, she boils it in water until the water turns red. The bark can be used again and again until the water no longer turns red. It’s a “relaxing tea, good hot or good cold,” Pauline tells us. “We’ve used it forever. I still use it today.”

Rose Ramirez uses sycamore and oak leaf mulch around her garden juncus to give it the deep red-brown color she uses in basket designs.
The sense of smell is critical in gathering plants, especially when poison oak grows in gathering areas. “One of the things in plant identification is smelling them and tasting them, preferably smelling,” Willie Pink tells us. “You do have to be careful. But you do want to learn about the smell of the plant and what it tastes like, to be able to identify it.” Sumac is “really pungent. The smell is one of those things that will tell you you’ve got sumac and not poison oak, because they do look identical.”

The berries also can help with identification. Mark Mojado relates that the “sumac berries are red, and poison oak’s are white.”

“If you look at most of the old baskets,” Abe Sanchez tells us, “you’ll notice that the predominant basketry material is sumac, highlighted with juncus for design. Sumac is a beautiful material.” Justin makes seed beaters out of sumac and gives workshops on how to construct them. “I use sumac for the hoop at the top and the handle. Again, I use sumac because it’s tough.”

DECEMBER 2010

<table>
<thead>
<tr>
<th>Su</th>
<th>Mo</th>
<th>Tu</th>
<th>We</th>
<th>Th</th>
<th>Fr</th>
<th>Sa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The berries are edible. “Pick the berries,” Abe Sanchez tells us. “Put a little salt on them, and eat them like that. Or put them in water, stir, let them sit overnight, and they’ll make a lemonade.” Sumac is a three-lobed leaf, “half brother to poison oak,” Justin says. More than a few people have confused them. “If I’ve been doing this for thirty-five years and if I mistake it, then other people can too.” Sumac requires “more tending, more cultivation to get good quality material,” Abe tells us. “If it’s not an area that’s been burned or been cut back, then you’re not going to have any suckers. The only good part of sumac is that new growth. Justin adds that pruning the sumac is “not as effective as burning, but it forces new growth.”
When I’m running my hands along the juncus, I can feel the plant’s energies. I just feel the juncus coming to life in my hands. And it brings me more to life. I’m taking its energies and it’s taking mine.

—Lydia Vassar
Acknowledgements:

**Principle Photographers**
Deborah Small, Rose Ramirez, Clarissa McCallum

**Additional Photographers:** CSUSM students and alumni
Damon Adamo, Margie Adcock, Emily Anderson, Aaron Belford, Andrew Folz, Leslie Guzman, Robin Knight, Josh Knoff, John Meyers, Drew Quizon, Carmen Ramirez, Maria Delos Reyes, Lauren Reynoso, Adina Rodriguez, Ryan Salenga, Cameron Sanchez, Amanda Tubbs, Vince Vargas, Whitney Zornes

**Principle Designers**
Margie Adcock, Deborah Small

**Consultants**
American Indian Channel
Connie Andrade, language translator/assistant
Kara Ballester, Education Special Programs Coordinator, San Diego Museum of Man
Stan Berryman, former Camp Pendleton archaeologist
Tangie Bogner, Cahuilla, basketweaver
Sean Bogner, Cahuilla, basketweaver
Jenna Bogner, Cahuilla
Villana Hyde Calac, Luiseño, elder, educator, co-author Yumay'k Yumay'k (1903-1994)
Marisea Canedio, Paipai/Ko'ailh
Maureen Castillo, Capëño/Luisëño
Teresa Castro, Paipai/Ko’ailh, elder, cultural educator
Diania L. Caudell, Luiseno, basketweaver, gatherer
Paisley Cato, Assistant Director, Western Center for Archaeology and Paleontology
Abelardo Ceseña, Paipai, artisan
Teodora Cuero, Kumiai, elder, plant specialist
Traditional Authority of La Huerta
Theresa Dodson, Environmental Director, Ramona Indian Reservation
Dee Dominguez, Kitamenak/Yowlumne, basketweaver, teacher, storyteller, cultural revitalization
Barbara Drake, Tongva, elder, educator
Margaret Dubin, Managing Editor, News from Native California
Eric Elliott, Linguist Pechanga Chumashakilwish School
Bryan Endress, Beckman Center for Conservation Research, San Diego Wild Animal Park
Ray Esquerio, Chumash
Mike Evans, Tree of Life Native Plant Nursery, San Juan Capistrano
Leonor Farlow, Kiliwa, elder, educator, language specialist
Justin Farmer, Ipi/Diegueto, elder, basketweaver, teacher, Justin Farmer Foundation
Linda Fouasat, Luiseño, Native American monitor
Edwina Freeman, Chumash, basketweaver
Robert Freeman, Luiseño/Hunkpapa Sioux, artist
Steve Freers, rock art specialist, author
Philip Hoog, Archaeology and NAGPRA Coordinator, San Diego Museum of Man
Bill Gould, artist, designer, flute maker, musician
Gerri Jimenez Gould, Tongva, medalist
Susan Hector, archaeologist, ASM Affiliates
Paul Herrera, film student
Sue Hill, Cahuilla/Luiseno, basketweaver
Jeanne Hofer, Luiseno, elder, basketweaver
Julie Holder, Kumeyaay, Curator, organizer
Indian Rock Native Garden Collaboration/San Luis Rey Band of Luiseno Indians/Tribal Council: Mel Vonen, Carmen Mojado, Charlotte Herrera, Tom Beltran, Al Cerda, Clara Guy, Henry Contreras, Mary Lou Beltran, David Herrera, Russell Romo, Carrie Lopez
Ka’chi, Acjachemen, spiritual leader, teacher
Donna Largo, Cahuilla, elder, educator (1945-2009)
Carmen Lucas, Kwamii, elder, artist, Native American monitor
Bill Madrigan, Cahuilla, Bird Singer
Monica Madrigan, Luiseno, educator
Malcolm Margolin, Publisher, News from Native California
Josie Manalo, Luiseño, elder
Daniel McCarthy, Tribal Relations Program Manager, San Bernardino National Forest
Kimberly McKewen, Capëño, Cupa Cultural Center
Virginia Melendrez, Kumiai, basketweaver
Mark Mojado, Luiseno, Native American monitor, educator
Irvine Morales, Luiseno, basketweaver
Joseph Moreno, Luiseno, elder, chair Pechanga Water Systems, Chair Justin Farmer Foundation
Becky Munoo, Luiseno, librarian, Chumashakilwish Pechanga School
Robert James Munoo, Luiseno
Pauline Murillo, Serrano, author, educator
Pat Murkland, editor Ushkana Press, teacher, artist, writer
Kristie Oroso, Kumeyaay, Environmental Director, Rincon Band of Luiseno Indians
Maren Peterson, Conservation Education Consultant, Beckman Center for Conservation Research, San Diego Wild Animal Park
Susan Phillips, Director Maiki Museum
Valerie Phillips, Las Pilitas Nursery, Escondido, CA
William Pink, Capëño/Luiseno, educator, board member
Dorothy Ramon Learning Center
Maria Ramirez, educator, editor
Eleanor I. Robbins, Professor of Geological Sciences
Rebecca Robles, Acjachemen, Chair of Sierra Club’s Orange County Native American Sacred Sites Task Force
Henry Rodriguez, Luiseno, images from the Henry Rodriguez Archive Collection (1920-2002)
Stan Rodriguez, Ipai, Bird Singer
Teeter Romero, Acjachemen, elder, basketweaver, educator
Greg Rubin, California’s Own Native Landscape Design
Abraham Sanchez, Parakepe, basketweaver, cultural revitalization consultant
Adella Sandoval, Acjachemen, Tsimshian Helqatum, Cultural Director
Katherine Siva Saubel, Cahuilla, elder, educator, tribal leader, co-author Temalpakh
Lorene Siqueux, Cahuilla/Apache, basketweaver, educator
Catherine Sherman Indian Museum, co-founder N’exwetem
Ernest H. Siva, Cahuilla/Serrano, President and founder of Dorothy Ramon Learning Center, historian, educator, musician
Aiyana Smith, Capëño, Pala
Monique Sonouque, Chumash/Apache/Yaqui, filmmaker, Director: Indigenous Youth Foundation
Minnie Tafoya, Acjachemen, elder, basketweaver, educator

**CSUSM**
Karen Haynes, President
Emily Cutrer, Provost
Gerardo Gonzalez, Dean of Graduate Studies and Associate Vice President for Research
Merry Goldberg and Richard Hunt, Center Arts
Bonnie Bigs, Professor Emeritus and Tribal Liaison
Tishmall Turner, Tribal Liaison
Bonnie Bade, Anthropology, Community Ethnobotany class
Joely Proudfoot, Luiseno, Sociology, American Indian Communities class
Deborah Small, Visual and Performing Arts, Advanced Digital Arts class
Margie Adcock, Graphic Designer, CSUSM alumna
Clarissa McCallum, CSUSM alumna
James Miller, Graphic Designer
William Bradbury, VPA, Composer
Chad Huggins, VPA, Technical Director
Albert Rascon, VPA, Assistant Technical Director
Linda Muse, VPA, Budget Manager/Administrative Coordinator
Lynda Gaynor and Dandi Strothers, Office of Service Learning

**Friends and Supporters**
Richard Davis, Ernie Tavizon, Norma Barone, Cheryl Trujillo, Jack Poorting, Barbara and Bud Swanson, Kris Davis

**Native Plant Organizations, Gardens, Reservations, Farms**
California Native Plant Society
Daley Ranch, Escondido
Monserate Mountain Preserve, Fallbrook Land Conservancy
Motte Rimrock Reserve, Perris
Quail Botanical Gardens, Encinitas
Rancho Santa Ana Botanic Garden, Claremont
Pechanga Indian Reservation
Ramona Indian Reservation
Rincon Indian Reservation
San Diego Wild Animal Park Nativescape, Escondido
Santa Rosa Plateau Ecological Reserve
Tierra Migual Farm, Pauma Valley: Beth Ann Levendoski, Executive Director; Milijan Krecu, Farm Manager; Jonathan Reinbold, Farm to School Coordinator; Joni Gabriel, Research and Education

**Funding**
CSUSM Lottery Grant, written by Deborah Small
Joseph Moreno, Luiseno, for generous contributions to the project

**Blogs**
Deborah Small http://deborahsmall.wordpress.com
Rose Ramirez http://roseramirez.wordpress.com
Edible, Medicinal, Material, Ceremonial: Contemporary Ethnobotany of Southern California Indians

2010 Calendar