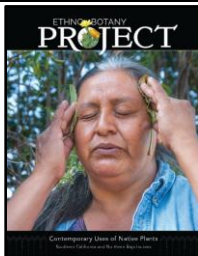


CALIFORNIA NATIVE PLANT SOCIETY
San Diego Chapter Newsletter

CHAPTER MEETINGS

Casa del Prado Room 101
Balboa Park



Tuesday, April 18

The Ethnobotany Project
by Rose Ramirez and Deborah Small



Tuesday, May 16

**Mariposa Lilies of the
Southern Californian
Floristic Province**
by Fred Roberts, CNPS-SD's Rare Plant
Botanist

6:30-7:00 pm – Natives for Novices. Topic TBD.

7:00 pm – refreshments, browsing, & socializing.

7:30 pm – presentation.

Chapter meetings are free and open to the public.



April 18

The Ethnobotany Project
by Rose Ramirez and Deborah Small

“The connection to who we are as a people has everything to do with the plants.”

—Tongva Cultural Educator, Craig Torres.

Please join us for a slideshow presentation of the book by our speakers, **Rose Ramirez** and **Deborah Small**, *The Ethnobotany Project: Contemporary Uses of Native Plants; Southern California and Northern Baja Indians*. Contemporary uses of 12 native plants will be discussed, including yerba mansa, bladderpod, wild cherry, creosote, elderberry, and agave, all of profound importance to the intellectual, spiritual, and cultural vitality of California native peoples. The many collaborators on this book hail from both sides of the U.S.-Mexico Border and they consider native plants their “teachers.” For this reason, the California native peoples are dedicated to passing on their traditional knowledge of native plant functions and practices to their generations and to others. We will learn how Native peoples are eloquent defenders of the land, its sacredness to them and its importance for all species that inhabit it. They have a fierce devotion to safeguarding native plants for their vital importance as foods and medicines, and in the larger cultural

revitalization sweeping California in restoring the traditions of Native peoples.

The book's collaborators promote an ethic of gathering and cultivating native plants in a manner that is sustainable, and they stress the importance of preserving native plants, plant communities, and the land for future generations of all species. We have the opportunity to learn from people whose ancestors were here for thousands of years, and knew how to protect and honor the Earth. We hope The Ethnobotany Project offers hope, inspiration, and healing for all of us!

Rose Ramirez is of Chumash and Yaqui descent. She is a member of the California Indian Basketweaver's Association and Southern California Indian Basketweaver's Organization. She runs the American Indian Channel, which documents the arts and culture of Native peoples. She has been a photographer for more than 40 years.

Deborah Small is an artist, photographer and professor in the School of Arts at California State University San Marcos, and a founding member of the Chia Café Collective.



Left: Yolanda Meza, Kuiai, of The Ethnobotany Project holding Yerba Mansa leaves.

Below: Weed's mariposa lily (*Calochortus weedii*)

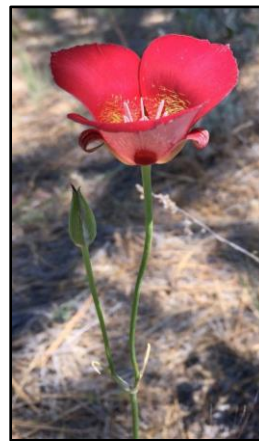


Tuesday, May 16

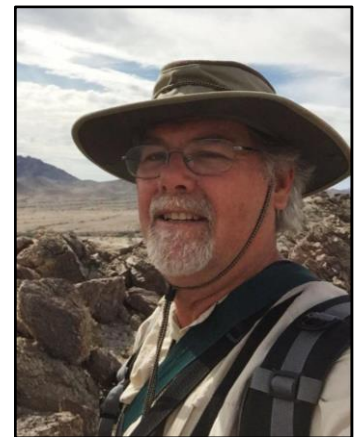
Mariposa Lilies of the Southern Californian Floristic Province

By Fred Roberts, CNPS-SD's Rare Plant Botanist

The mariposa lilies (genus *Calochortus*) include about 70 species found in western North America from British Columbia south to Guatemala with its center of diversity in California. The mountains, foothills, and coastal regions of southwestern California and northwestern Baja California, Mexico offer 15 species. The flowers of these bulb-forming perennials come in an assortment of colors and forms varying from the all-white globe-shaped white fairy lantern (*C. albus*) to the brilliant orange of the desert mariposa (*C. kennedyi*), the reds, whites, and yellows of the butterfly mariposa lily (*C. venustus*), and the Weed's mariposa lily (*C. weedii*). Some species are widespread, others are included in the CNPS Inventory of Rare plants because of rarity or threat. Join us tonight as Fred M. Roberts gives us a tour of this delightful group of wildflowers.



Butterfly mariposa lily (*Calochortus venustus*)



Fred Roberts

BOARD MEETING

Wednesdays, April 5 & May 3, 6:30 – 9:00 p.m. 4010 Morena Blvd, Suite 100, San Diego (Thomas Guide 1248 C4). CNPS-SD Executive Board meetings are always the first Wednesday of the month, except when the 1st Wednesday falls on a holiday. Members are welcome to attend as observers. To add an issue to the agenda, please email president@cnpsd.org.

Fred Roberts, author of *Illustrated Guide to the Oaks of the Southern Californian Floristic Province* (1995) and co-author *Wildflowers of Orange County and the Santa Ana Mtns. Regions* (2013) has been working with native plants since high school. He was the assistant curator of the Herbarium at the Museum of Systematic Biology at U.C. Irvine for nine years, worked as a botanist with the U.S. Fish and Wildlife Service primarily adding species to the endangered species list, and has spent the last 17 years as an independent

botanical consultant, author, and artist. He is also the Chapter Rare Plant Botanist. His specialties include the flora of Orange County, oaks, lilies and their relatives, and rare plants of southern California.



**7th Annual California Native Plant Week
April 15 - April 23, 2017**

CNPS-SD has activities throughout the month of April.

NATIVE GARDENING

Garden Native Meeting

April 12 and May 10. Garden Native is the Chapter's native gardening committee, which meets the 2nd Wednesday of each month at various locations. For info: **Mike Gonzales** at gardening@cnpsd.org.

CNPS-SD Seeds and Bulbs

The **Seed and Bulb Team** now has a home for the group on the beautiful new CNPS-SD website <https://www.cnpsd.org/seeds-and-bulbs/>. Here we have links to how to purchase our seeds by mail order as well as volunteer opportunities and contact information.

We will be selling and are also looking for people to help sell our seed envelopes at the upcoming events:

- CNPSD Garden Tour at the Southwestern College's Botanic Garden (**April 1&2**)
- CNPSD Spring Plant Sale at Cuyamaca Water Conservation Garden - Spring Garden Fest: **April 29**

In collaboration with Michael Gonzales and the Public Outreach Committee, we put together a hands on activity for CNPS information tables that lets people learn about our native plants while having the opportunity to make and bring home their own seed mixture from a variety of seeds from our area. This was a very popular station at theSDAS Bird Fest Family Day in February and we hope to make it available at future CNPS outreach events. Here is a quote about the

activity from Michael who ran the CNPS table that day "You will be so happy to learn that kids, teens and adults alike had a great time putting together their native seed mixes and learning about our native species! That was the FASTEST 4 hrs I've ever experienced. I barely had time to breathe – but you know what? I was absolutely in HEAVEN! To see the excitement and happiness in the eyes of children as they envisioned what their native gardens would look like - and all of the butterflies, bees and birds that they would bring to their yards – PRICELESS. And what was just as cool - their parents were TOTALLY INVESTED!"

Does this sound like fun or what?? There are many other opportunities to help run this activity if you are interested! Just let us know. Please contact **Cindy Hazuka** at seedsandbulbs@cnpsd.org to learn more about any of the above.

April 29, 2017

CNPS-SD Spring Plant Sale

at the Cuyamaca Water Conservation Garden - Spring Garden Festival



CALL FOR ABSTRACTS

FOR ORAL AND POSTER PRESENTATIONS

Open now through July 10, 2017

You are invited to submit an abstract to present in a themed oral or poster session at the CNPS 2018 Conservation Conference! Presenting at the conference means sharing your research, project, or new idea with

1,000 other conservationists and native plant enthusiasts who can learn from your work and put new science into action. You may find opportunities for collaboration and new projects or identify research needs directly impacting the future of native plant and natural resource conservation in California.

The conference program will focus on communicating the most recent and effective conservation science; all presentations should have a clear connection to native plants or natural vegetation conservation. Presentations are organized into themed sessions, including Current Research (dedicated to student presentations), a poster session, and Lightning Talks.

More info at: <https://conference.cnps.org>

FIELD TRIPS

Silverwood Wildlife Sanctuary

Sunday, April 23, 2017; 9:45 am

Join us for a tour of Silverwood Wildlife Sanctuary, a 785-acre property in Lakeside owned and maintained by San Diego Audubon. We'll begin with president Manager Phil Lambert giving us a 1 hour introduction to the property. After that we will roam the trails filled with pristine chaparral, looking for native plant treasures.

Blooming in April will be the local Lakeside ceanothus (*Ceanothus cyaneus*). Other plants we will look for include Nuttall's Snapdragon (*Antirrhinum nuttallianum*), California Centaury (*Zeltnera venusta*), and Cardinal Catchfly (*Silene laciniata*). In all, 340 plant species have been recorded on the property.

Directions: From central San Diego go east on I-8 to the Highway 67 exit in El Cajon. Once on Hwy 67, go north on 67 to Lakeside. When the freeway ends, take Mapleview St. east (right) to the second traffic light at Ashwood, go 4.8 miles to Silverwood. Look for the large yellow mailbox on the right. Be careful of traffic when entering and leaving Silverwood.

From northern San Diego city and North County, take Highway 52 east all the way through Santee to Hwy 67. Take the northbound 67 exit to Lakeside, and from there follow the directions as above after the freeway ends.

Ride share: If you want to ride-share from coastal central San Diego, meet at 8:45 am at the parking lot behind

Denny's Restaurant, 7676 Friar's Road, just east of SR 163. Enter the parking lot from cross street Frazee Road. We will leave from there at 9:00 am. Be sure and offer whoever is driving several dollars for transportation costs.

Miramar Vernal Pool/ Mima Mound Complex

Saturday, May 6, 2017; 8:15 am

The rains were fabulous this past season, and the vernal pools are prepared for a spectacular bloom. Join CNPS for this special opportunity to visit some of Miramar's pools in blooming season. Miramar Mounds National Natural Landmark, designated in 1972, encompasses approximately 415 acres of mima mounds and vernal pools with minimal early grazing disturbance. From our meet site we may carpool to the hike, which will be approximately 2 - 3 miles total. Miramar wildlife biologist Chuck Black will conduct the walk.

NOTE: This trip is limited to 20 participants and is private access only. To register you must sign up at <https://www.meetup.com/San-Diego-County-Native-Plant-Discoverers-Meetup/>. If you are on Meetup, go to meetup.com, register for free and search San Diego County Native Plant Discoverers.



Vernal Pool with *Downingia cuspidata* (toothed calicoflower) at Miramar Mounds a few years ago. Photo by Bobbie Stephenson

Tijuana River Valley Regional Park (Dairy Mart Trailhead)

with the San Diego Canyoneers

Wednesday, May 24, 2017; 8:45 am

CONSERVATION

Conservation Committee

April 4 and May 2. First Tuesday evening of each month. Contact **Frank Landis** at conservation@cnpsd.org for details about time and location.

Things That Go Crunch In The Bark

There's something about reading about Polyphagous Shot Hole Borers and commenting on the North County Multiple Species Conservation Program (MSCP) that just inspire me. Sadly, I'm not sure anyone will appreciate what I'm thinking about.

Probably most of you are aware of the Shot Hole Borers (<http://ucanr.edu/sites/pshb/> is the easiest source of information). There are two species that are physically indistinguishable, but which are genetically distinct and come from different parts of Asia. In San Diego County, we have the Kuroshio Shot Hole Borer (*Euwallacea* sp. I'm still looking for the specific epithet. Let's call it KSHB), and it also has been found in Orange County and Santa Barbara as well. Up in LA and Ventura, they have the Polyphagous Shot Hole Borer (also *Euwallacea* sp. I'm still looking for the specific epithet, and I don't think it has one either. We'll dub it PSHB).

The problem with these two non-native beetle species is that they like to burrow into the trunks of trees, and like other ambrosia beetles, these tiny pests –they're about the size of a comma or a period on paper—bring their own species of fungi with them (*Fusarium euwallaceae* and a *Graphium* species). These fungi, along with the beetle galleries in the trunk, kill the trees.

The bad news is that these beetles aren't all that specific. Both of them love willows, alders, sycamores, and cottonwoods (and castor beans and avocados), but the PSHB has more hosts (49 species to date) than the KSHB (15 host species known so far. You can read about the hosts at <http://ucanr.edu/sites/pshb/overview/Hosts/>). The worse news is that they're rather deadly to trees. The KSHB killed some 140,000 trees in the Tijuana River Valley over nine months in 2016 (see <http://www.cw6sandiego.com/newly-discovered-beetle-decimates-trees-tijuana-river-valley/>), and the

This 1,800 acre park is bisected by the Tijuana River and the broad flat floodplain provides an ideal environment to observe the diverse vegetation communities that attract transient bird populations as well as amphibians and reptiles such as lizards, frogs and toads. This is an easy 3 mi. hike with an elevation gain/loss of ~ 200 ft.

Directions: (Imperial Beach) From I-5 S, exit right on Dairy Mart Rd. and go 0.2 mile to the parking lot on right with a Parks and Recreation, County of San Diego, Tijuana River Valley Regional Park sign (opposite Camino De La Plaza). Park to meet the Canyoneer host. No facilities. (GPS N32.554486, W117.062519).

Lilies and Relatives in the Laguna and Cuyamaca Mountains

Sunday, June 4, 2017; 8:30 am-3:00 pm
Trip Leader: Fred Roberts

Late spring is a good time to take a look for lilies and their relatives. Join us on a trip to the Laguna and Cuyamaca Mountains and be introduced by CNPS-SD Rare Plant Botanist, **Fred Roberts**, to a number of these species. The trip will make three stops: on the Sunrise Highway and SR 79, including a stop at the meadows at the information kiosks near the southern Cleveland National Forest boundary (Sunrise Highway); Inspiration Point (SR 79); and on a rocky knoll just north of Cuyamaca Lake. Among the species we hope to see: *Allium amplexans* (paper onion), *Brodiaea terrestris* ssp. *kernensis* (dwarf brodiaea), *Calochortus albus* (white-fairlylantern), *C. dunnii* (Dunn's mariposa), *C. invenustus* (shy mariposa), *C. splendens* (splendid mariposa), *C. weedii* (Weed's mariposa), and *Toxicoscordion venenosum* (meadow death camas), and perhaps a few others. Expect other pretty wildflowers as well. It should be a good year for it.

Bring **LUNCH**, a bunch of **WATER**, and **SUN PROTECTION**. **Vehicles should have an ADVENTURE PASS for our CNF stop.** Generally, this field trip will only have short, easy walks (though expect uneven terrain at Cuyamaca Lake). We will try to car pool as much as possible to reduce the number of vehicles.

Meeting Spot: Los Coches Park and Ride, 13516 Camino Canada, El Cajon, CA 92021.

RSVP for field trips at: <https://www.meetup.com/San-Diego-County-Native-Plant-Discoverers-Meetup/>

Questions: fieldtrips@cnpsd.org

PSHB has killed over 1,000 trees on the UC Irvine Campus (<http://www.ocregister.com/articles/trees-662428-uci-beetle.html>).

Of course it gets worse. The beetles are so small that, to make sure they don't simply fly off from cut wood, you've got to chip the wood to pieces smaller than one inch. Or you have to seal and solarize the logs for six months. Grinding a big tree into tiny bits is extremely expensive, as the UCI maintenance people have found.

There is no good treatment for these beetles, although there is hope for biological control. This hope comes from the apparent fact that the beetles are rare in their native ranges, and researchers were able to find several possible biocontrol species. They'd like to run these species through the rigorous USDA certification procedure, but that will take years and cost millions of dollars. If you want to help with (finding) funding that effort, contact conservation@cnpsd.org.

In the meantime, there isn't any good way to control either of the shot hole borers beyond detecting an infestation early and grinding up the tree that's infested, before the beetles fly and the infestation spreads out of control.

The worst thing that can happen is if people simply cut down infested trees and use the wood as firewood. You would be right in thinking that burning kills beetles, but unless you bag the logs and take them straight from the bag to the fire, there's a chance for the beetles to fly out. And for all I know, they'll fly out anyhow as the fire heats them up. Still, if someone has dozens of avocados dead of disease and it costs thousands of dollars to dispose of the wood safely, then you can see the incentive to simply chop the logs and leave them at the side of the road with a "free firewood" sign. You'd pick that up, right? (Wrong).

Firewood movement is the main way these pests are spreading. It's apparently how the KSHB jumped from San Diego to Santa Barbara, and they are concerned it has jumped to San Luis Obispo. The projected climatic range for the Shot Hole Borers goes all the way up to Tehama County, as well as to Hawai'i, Arizona, and Florida. They could go a long way if people keep being careless about moving wood.

Indeed, there are several programs, such as dontmovefirewood.org and the State's Burn It Where You Buy It (<http://www.firewood.ca.gov/>) to educate the public about not moving firewood. I suspect the message is getting out about as fast as the message to not widen trails by riding mountain bikes around

puddles, but it's a start. Dontmovefirewood.org even has a list of 51 pest species nationwide that are being moved through firewood, including dutch elm disease, chestnut blight, emerald ash borer, gold spotted oak borer, sudden oak death, white pine blister rust, and so on.

Can I convince you not to move firewood, and not to even buy firewood from that ever-so-plucky Boy Scout troop that's selling firewood as a fundraiser? Thanks in advance. Now you know why it matters. Please spread the word.

This, and monitoring trees to see if they suddenly start suffering and dying, are the most important things you can do to help stop the spread of pests. There aren't good treatments for a lot of plant diseases and pests, and the only way to keep them from radically altering forests is to keep them from spreading. We failed with chestnut blight, but hopefully we won't fail with our willows. Or our oaks.

And that's the connection that's bugging me (literally) about the MSCP. I was invited to join the steering committee for the North County MSCP, and we're hashing through the details of preserve design. The MSCP is an interesting way to do conservation, because it piggybacks off the needs of a bunch of sensitive and listed species to make a program for preserving wild areas that house a lot more than just those species. Unfortunately from my perspective, it also makes it easier for developers to take land outside the preserves in exchange for paying to preserve land, but that's the deal we get as long as we're growing and there's a housing shortage.

Still, there's a problem with this, and I'm not sure the County planners have fully come to grips with it. That problem is all the pests, whether it's the KSHB, the gold spotted oak borer (*Agilus coxalis*) going after our black and coast live oaks or one of those dozens of *Phytophthora* species currently in the nurseries turning out to be the next sudden oak death.

Let me give you an example. Southwestern Willow Flycatcher (*Empidonax traillii extimus*) is one of the MSCP covered species. This is great, because trying to protect it means that we protect all the willow riparian areas. The problem is if KSHB gets into one of these areas, kills all the willows, and the flycatchers leave or die. What's the conservation value then? A developer might not be interested in preserving the area, because it now has no conservation value. For the MSCP to work, the ecosystem has to be relatively intact. And to deal with that, all of us have to do our

part to slow the spread of all these pests that our global horticultural trade has loosed upon the world. Keep an eye out, don't move firewood, and when you see something, speak up. You can contact County Ag, or just email it to conservation@cnpssd.org and I'll put you in touch with the right people.

If you want to be really morbid...well, it's April, and there was a superbloom in the deserts, so I'm not going to be too dark. But I wonder, sometimes, whether a California species will be the next American chestnut, the next American elm, a common species reduced to rarity or wiped out by an exotic pest we accidentally introduced. My best catastrophe candidate at the moment is the coast live oak (*Quercus agrifolia*). Sure they're everywhere, but they are hosts for both shot hole borers, the gold-spotted oak borer, and sudden oak death (*Phytophthora ramorum*). If these were left unchecked, I'm not sure there would be any oaks left in California, and that's a huge blow to ecosystems throughout the state. Unless and until we get cures for all these pests (don't hold your breath), our vigilance is the best safeguard. Please do your part.

~ Frank Landis, Conservation Chair

Old Town Native Plant Landscape

Apr 8 & May 13, Saturday; 9:30 am to noon

The Old Town Native Landscape needs your help thinning out weeds and pruning shrubs. We hope to see that the rains brought up lots of wonderful native flowering annuals!

Bring drinking water, hat, gloves, and your favorite tools for these jobs. An ordinary table fork with wide tines makes a dandy weeding tool and sharp scissors that you don't mind getting wet with weed juice can be used to snip away weeds from right around desirable annuals, without disturbing their roots in the soil.

The Landscape is north of the MTS bus/trolley/train station at Taylor and Congress Streets. This is the west end of the Park. If you come by public transit just cross at the corner and come in under the trees where we have signup, tools, handouts, and the work party leaders will find a task for you. Or if you drive, there is free parking in the lot between Calhoun and the Landscape just east of Taylor Street. Questions? Contact oldtownlandscape@cnpssd.org.

IN THE FIELD Miller Mountain

The far northern part of San Diego County includes land that is north of Camp Pendleton under the ownership of the Cleveland National Forest. A portion of the Cleveland National Forest is the San Mateo Wilderness Area, a series of canyons including Devil's Canyon. In Riverside County, several volcanic plateaus exist, including Mesa de Colorado and Mesa de Burro. These are volcanic plateaus consisting of a cap of volcanic rock that was laid down during the upper Miocene (8 million years ago, Kennedy 1977). The once continuous mesa formed by the volcanic flow was divided by erosion into a series of separate mesas. Nearly all of them are located in Riverside County, except one, Miller Mountain. The peak is 2,953 feet, with a mesa portion at 2,946 feet in elevation.



Edge of Miller Mountain.

Another interesting fact is that the Santa Rosa Basalt volcanic rock is the home of *Brodiaea santarosae* (Santa Rosa Basalt brodiaea), a species that was described in 2007 (Chester, Armstrong and Madore 2007). It has characteristics that indicate it is clearly related to the federally threatened state *Brodiaea filifolia* (thread-leaved brodiaea), but it has longer flowers and grows bigger plus many have long filamentous staminodia but sometimes none at all.



Santa Rosa Basalt brodiaea (*Brodiaea santarosae*)

The *Brodiaea* was one of the reasons that I have been interested in visiting the area, besides that fact that it is a remote part of San Diego County that I have never seen.

I examined the location with Google Earth, trying to find the best route into the area. Tom Chester graciously provided me with information on access and maps of trails in the area, and Kirsten Winter of the Cleveland National Forest also assisted in providing information access. The consensus was to proceed out a Forest Service road and then walk up a trail along one of the canyon bottoms that heads up to the mountain. I examined the area closely and noted that the canyon bottom was full of oak trees and I surmised that it was probably also full of poison oak in at least the portion beneath the canopy of the oaks. I thought I could see a trace of a trail for the portion that was outside of the trees. Actually, several traces of trails were visible; however, it appeared that people I spoke to about going with me were apprehensive because of the poison oak. I have walked through a large amount of poison oak in my life, surprisingly without being affected. My mother once had a bad case from washing my brothers' and my clothing after we had walked through it.

Jonathan Dunn decided he would go along in spite of the fact that he can have severe cases of poison oak if he has been exposed to it. Picking a date to try it was another challenge. There were reports that we were picking a date too early since other sites of *Brodiaea filifolia* were not yet in flower. However, I based the decision on the collections that had been made between the first week of May and the first week of July with most from mid-May to mid-June. Considering that so many other plants were early this particular year and that we had low rainfall and warmer dry weather I felt confident about the mid-June date we chose.

Working toward the take off point, I relived once again the folly of relying solely on Google Earth to find a site. We did have to drive to Riverside County west of Temecula to find the site. Eventually we drove into the general area through a beautiful valley that was gradually being developed with large houses. We drove past one site that had a Polo Field and traveled on to Tenaja Road and then Cold Springs Road. The trail head we planned to walk came out of a sharp turn in the road. We examined nearby to be sure we had the correct location. The worse part was the trail seemed to be non-existent. A narrow erosion channel existed in the bottom of the Canyon. It went beneath the trees where branches hang low. Last December, a highly unusual snowfall fell in the east in the Temecula region and

though it was not much more than a foot in depth, a high number of the trees exhibited broken branch tops. The problem was that a large amount of downed wood lay in the drainage bottom and branches of *Malosma laurina* and oaks crossed the path making it more difficult to pass through. Poison oak, though it was more slender and spindly beneath the trees, was growing along the sides of the drainage channel and drooping over the channel. I don't know what seemed to be visible on Google Earth, but there did not seem to be a real trail. The temperature that day was predicted to be in the mid 90's Gnats and flies were another annoyance with the heat and perspiration especially near dry pools of water filled with leaves and decaying vegetable matter.

Further up, I had to crawl on my knees in several places to pass beneath the low branches and then just before the oak portion ended, the poison oak was denser again with wand-like branches blocking the path. They provided lush greenery to the area just tinged with yellow from the dryness. At the end, we emerged into a dense chaparral patch but above that, Coastal sage scrub and grassy patches existed.

We exited the chaparral and entered the next level. *Leptosiphon liniflorus* grew along an edge area between the Artemisia and the chaparral. The pale lavender flowers have little striations radially on the petals.

The trail I thought I had seen from google earth images was not visible and maybe not present on the slope any longer. The first slope up hills was steep and in order to avoid the majority of the shrubs, we drifted to the west a little ways. The view to the south was beautiful heavy chaparral, two isolated homesteads existed. One was definitely placed in the midst of the chaparral. This chaparral appeared to all be old growth which is surprising because as we climbed, we detected smoke coming from Camp Pendleton to the west. It is well known that fires are frequent on Camp Pendleton due in part to the types of training activities held there. One would think that the prevailing winds would carry fire from the base to the lands to the east, however, it is apparent that firefighting activities have prevented fires from burning off of the Base since the vegetation is so large and old in this area. Throughout the day, the smoke drifted over us and created a haze over the valley. The slope was steep as we kept climbing but then we passed over onto a grassy shoulder and on up into chaparral with Engelmann Oaks nearby.

Over the knoll, a grassy valley opened before us. We were attempting to stay on a course of what we thought was public lands. We waded on through it and toward a

hill slope when a heard of cows became aware of our presence and started moving toward us. As they moved, it was clearly apparent that the level of flies intensified. We were already very hot and sweaty, and now flies. We found a way out of that pasture and then did a reconnaissance for our location and the peak. The peak situation is interesting. The actual highest peak is a steep knoll that is 2,953 feet but it is also separated by a saddle by .4 miles from another mountain that is a flat mesa on top. That mountain is 2,946 feet high at the west end.



View to the south from Miller Mountain region with smoke from Camp Pendleton.

We walked up onto the saddle along a ridge between the two peaks and climbed through big volcanic rocks and then stopped in the shade of a large coast live oak tree. The mesa is about 2,300 feet in elevation and four tenths of a mile long and 300 feet wide, but it is not perfectly flat since it drops about 75 feet in elevation from the west to the east.

All along as we walked, we were looking for *Brodiaea*. However, we examined soils with clay and soils with *Deinandra* that appeared to be perfect for *Brodiaea*. However, we saw none.

We ate lunch in the shade of the tree, sitting on dried cup shaped oak leaves typical of Coast Live Oaks and we drank a lot of our water and Gatorade to prevent me from getting leg cramps. The temperature was very warm. After we ate, we began walking down the gently sloping mesa portion of the mountain top. About a third of the way down as we walked separately, Jonathan and I found one at exactly the same time. After that, we found more of them. Nearly all of them were on their last flower with no more buds. It was very apparent that if we waited another wee, there would not have been flowers any longer and we would not have seen them at all.

Farther down to the east on the mesa, we observe a few small clusters of 2 or 3 at a time. There weren't very many. They grow in the rock locations. The mesa had

Engelmann oaks, coast live oaks, and the grassy areas had *Avena* (wild oats) and *Nassella* (native bunch grass), mostly. It looked like just dry grassland. This part of the County does not seem to have received as much rainfall as parts of the southern part of the County that season. One thing, however, is that when you encounter one of these blue mini-flowered lily-like plants in the mist of dry straw, they are striking. The blue flowers appear to float over the grass as little gems. This type of discovery is the epitome of finding rare plants. It's a beautiful little flower and the fact that it is in a remote location makes it more interesting. It was also a relief that we saw them because I had beginnings of doubt that they even appeared that year, but fortunately, I was wrong.

Time was passing by. The afternoon was hot. Up on the east end, there seemed to be little opportunity for a climb down because the rocky volcanic cap left a drop that was nearly vertical. We found a slight gap in the rocky top so we headed down. The pathway was precarious, stepping down so that we did not trip and fall. A fall would have been a long distance catastrophe.

I nearly stepped on a Mourning dove nest on the ground. The bird flushed. It had one egg and one chick. The slope was all Coastal sage scrub with *Artemisia californica* (coastal sagebrush) and a little *Eriogonum fasciculatum* (flat-top buckwheat). *Malosma laurina* (laurel sumac) was the dominant shrub at the base and they were quite large and their branches interlocked preventing a simple passage through them. We found some *Brodiaeas* in one place where there were a few growing in low semi moist spot.

After we cleared the area of the shrubs, we passed onto a grassy slope. Jonathan stopped to drink some water under a sycamore in an area where cattle congregated. There we unexpectedly found some more *Brodiaea* growing. We were now in a little valley.

We next determined our route to be out of the pasture and down the initial slope that we came up. The smoke odor was stronger and the haze from the smoke began to be more apparent in the valley below us. It was still uncomfortably hot and I had been drinking a lot of water. I had another bottle of Gatorade back at the car that I was looking forward to drinking. As much as I don't relish Gatorade, I drink it to help prevent leg cramps.

From the slope we could see tracings of a trail through the chaparral that were not apparent when we walked up. We headed for that so that the chaparral was more passable for the first few dozen yards, but then the trail took us right back into the oak canopy. Jonathan was

concerned about poison oak and opted to go outside of it. I went forward through the greenish pastel light provided by the semi-translucent poison oak leaves. It was pretty but there certainly was a high level of poison oak there. I moved it out of the way with my gloved hands trying to be careful not to touch my bare skin with my gloves later, but I knew that I did touch it. On the way out, I again had to crawl under downed branches and retraced my steps. Perspiration, flies and gnats (fortunately not the biting kinds) and a lot of poison oak were all present. We arrived at the car at nearly the same time then drove back out of that area and headed down I-15. Jonathan's Fitbit indicated that we had walked over ten miles. What an interesting location!

~ **Tom Oberbauer**, Vice President

Chester, T., W. Armstrong and K. Madore. 2007. *Brodiaea santarosae* (Thenidaceae), a new rare species from the Santa Rosa Basalt area of the Santa Ana Mountains of Southern California. *Madrono* 54:187-198.

Kennedy, M. P. 1977. Recency and character of faults along the Elsinore Fault Zone in Southern California. U.S. Geological Survey, Department of Interior, Special Report 131. California Division of Mines and Geology.



Purple mat (*Nama demissum*)



Sand verbena (*Abronia villosa*) and *Oenothera* sp.

Super Bloom in the Desert

Photos by Jurgen Schrenk



Glorietta Canyon



Desert lily (*Hesperocallis undulata*)

RELATED ACTIVITIES

San Diego Floral Association

DESIGNING NATIVE GARDENS
with Carol Bornstein

Wednesday, April 19, 2017 at 1:30 pm. Room 101, The Prado, Balboa Park.

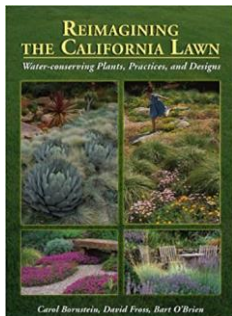
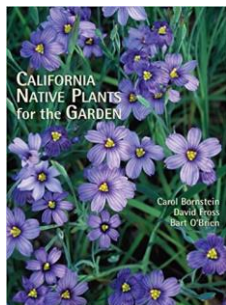
For nearly 30 years, Carol Bornstein was horticulturist at the Santa Barbara Botanic Garden. Today she



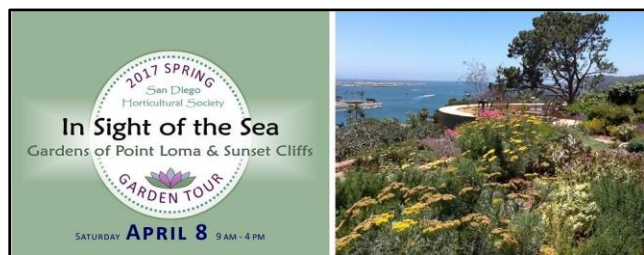
Desert star (*Monoptilon bellioides*)

continues to share her knowledge of plants native to California and the Mediterranean region through teaching, writing and design. Carol is co-author of two books, the award-winning **California Native Plants for the Garden** and **Reimagining the California Lawn**. She has selected and introduced several popular cultivars for California gardens, including *Verbena lilacina* 'De La Mina' and *Lessingia filaginifolia* 'Silver Carpet' and she continues to share her knowledge of plants native to California.

Copies of her books will be for sale after the program.



The San Diego Horticultural Society



In Sight of the Sea April 8; 9 am to 4 pm

Point Loma & Sunset Cliffs

Vendors and artists in the gardens.

Proceeds fund Horticultural Scholarships.

The self-guided tour of nine beautiful gardens showcases all that San Diego horticulture has to offer. Some of the lush gardens we visit include beautiful, mature palm trees and tropical plants, appropriate to the coastal setting. We will take an up-close look at home gardens in several of the neighborhoods on the peninsula, starting with an artistic garden in Loma Portal and concluding with unique gardens in La Playa. Along the way, you'll visit one of San Diego's best palm gardens, a garden created decades ago by Sinjen (our 1998 Horticulturist of the Year honoree), some top designer gardens, plant collector gardens, a fabulous potter's garden, and several homes that were designed with the gardens in mind.

Selected vendors will be selling garden related items. A special attraction this year, one of the garden owners will be selling his custom-made pottery. Many of the

pots include succulent arrangements planted by his wife. **All tickets must be purchased in advance. No day-of-tour ticket sales.** Purchase tickets at:

<https://sdhort.wildapricot.org/event-2256985> .

SDHS members \$30

Non-members \$35

Wildflower Hotlines

On March 26, 2017 the Desert Wildflower Hotline reported: The 2017 desert's **super bloom wildflowers** are past their prime in some areas, **but there should still be many good areas to see wildflowers for the next few weeks.** Joshua Tree NP, Mojave Desert and Anza Borrego DSP have had cooler weather and wildflowers and cactus are in bloom now. Southern California, Nevada and Arizona are also blooming. During the week is the best time to visit the desert.

DESERT WILDFLOWER HOTLINE: Anza-Borrego Desert State Park: (760) 767-4684. Info, events, road conditions (760) 767-5311 or

www.desertusa.com/wildflo/wildupdates.html .

WILDFLOWER HOTLINE: March to May call the Theodore Payne Foundation hotline: (818) 768-3533 or visit

www.theodorepayne.org .

The CNPS-SD Newsletter is generally published 12 times a year. The newsletter is not peer reviewed and any opinions expressed are those of the author identified at the end of each notice or article. The newsletter editor may edit the submittal to improve accuracy, improve readability, shorten articles to fit the space, and reduce the potential for legal challenges against CNPS. If an article, as edited, is not satisfactory to the author, the author can appeal to the board. The author has the final say on whether the article, as edited, is printed in the newsletter. Submissions are due by the 10th of the month preceding the newsletter; that is, May 10 for the Jun newsletter, etc. Please submit items to newsletter@cnpsd.org

CNPS-SD Activities Calendar April & May 2017

- 4/1-2: Garden Native Tour, p.1**
- 4/4: Conservation Committee Mtg, p.5
- 4/5: Board Meeting, p.2**
- 4/8: Old Town Native Landscape Work Party, p.8
- 4/12: Garden Native Mtg, p. 2
- 4/18: Chapter Meeting, p.1**
- 4/29: Spring Plant Sale, p.3**
- 5/2: Conservation Committee Mtg
- 5/3: Board Meeting, p.2**
- 5/10: Garden Native Mtg, p. 2
- 5/13: Old Town Native Landscape Work Party,
- 5/16: Chapter Meeting, p.1**

MEMBERSHIP APPLICATION

___ Student or Limited Income \$25; ___ Individual \$45; ___ Family \$75
___ Plant Lover \$100; ___ Patron \$300; ___ Benefactor \$600; ___ Mariposa Lily \$1,500

Name(s): _____

Address: _____

Phone: _____ e-mail: _____

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April/May 2017 Newsletter

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CALIFORNIA NATIVE PLANT SOCIETY – SAN DIEGO

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