



CALIFORNIA NATIVE PLANT SOCIETY
San Diego Chapter Newsletter

CHAPTER MEETING

Casa del Prado Room 101
Balboa Park

September 19, 2017

Nature Restoration Landscaping & Calscape By Dennis Mudd

“Nature Restoration Landscaping and Calscape” is focused on helping people restore nature in their gardens, by building natural ecosystems composed of plants, insects, birds and other animal life indigenous to their location. We’ll discuss some of the best practices for nature restoration landscaping and demonstrate the Calscape web site, a powerful tool for helping people figure out which plants naturally belong in their garden, where to buy them and how to keep them healthy.

Dennis Mudd is a self-taught native plant enthusiast who founded Calscape to enable small scale nature restoration efforts in California. He now leads development of the site in partnership with CNPS and the Jepson eFlora. His native garden won San Diego Home and Garden’s “Garden of the Year” award in 2012. He can be contacted at dennismudd@yahoo.com and the Calscape URL is www.calscape.org

6:30-7:00 pm – Natives for Novices. Using the CNPS-SD Online Resources.

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

7:30 pm – presentation.

Chapter meetings are free and open to the public.

FIELD TRIP

September 9, 9:00 am – noon. Torrey Pines State Reserve Extension - Del Mar. Easy to moderate hike. **See p. 2.**

GARDEN NATIVE WORKSHOP

**Create Beauty with California Native
Plants - Learn from the Best!**

Saturday, September 16, 2017

9:00 am - 3:30 pm

The workshop will be held at the First Unitarian Universalist Church of San Diego at 298 WEST Arbor Drive in Hillcrest. The venue is much larger this year than last, so we will have plenty of room for everyone who wants to attend!

Plants, Seeds & Books for sale, too!

8:15 - 8:45 am: Registration, Muffins & Coffee

9:00 am - 3:30 pm: Workshop

12:30-1:15 pm: Lunch (included in cost)

Registration open now!

Visit www.gardennative.org

The Fall Plant Sale will follow on October 14 at the Casa del Prado Courtyard in Balboa Park (see p.2).



Dennis Mudd

Natives for Novices: “Using the CNPS-SD Online Resources”

Joseph Sochor is a digital business consultant in San Diego. He designed the website for CNPS-SD and administers the social media platforms for the chapter.



Joseph Sochor

FIELD TRIP

September 9, 9:00 am – noon. Torrey Pines State Reserve Extension - Del Mar. Easy to moderate hike. PLANT KNOWLEDGE: Beginner to Advanced (Professionals always welcome!)

This hike is a double loop trail overlooking the Del Mar coast within the quiet and often overlooked Torrey Pines SR Extension on the north side of Los Penasquitos Lagoon. Weather at the beach has been cloudy and cool this year, but be ready to bring all your sun gear. From the trailhead at the end of Mira Montana Dr., we'll head out on Red Ridge Loop for the views and then backtrack for the Mar Scenic Trail. If there's time and interest, the DAR trail awaits as well with an even better ocean view.

While not much will be in bloom, we will pass by a number of rare plants including Del Mar manzanita

(*Arctostaphylos glandulosa* ssp. *crassifolia*), White coast ceanothus (*Ceanothus verrucosus*), Summer holly (*Comarostaphylis diversifolia*), and of course many rare Torrey pines (*Pinus torreyana* ssp. *torreyana*). Communities within the Reserve range from the unique Southern maritime chaparral to Diegan coastal sage scrub, coastal bluff, and extremely rare Torrey pine woodland. This hike aims to enjoy the maritime habitats, talk about the ecology of the coastal environment and the positive influence of urban islands on the city, and peruse locally native plants that do well in coastal gardens during the late summer.

Carpool will be available 8:15 to 8:30 am from the parking lot BEHIND Denny's on Friars Rd (at the SR-163). From Friars Rd, turn north onto Frazee Rd and then left at the light (Ralphs Drwy) to the parking lot. A few bucks for gas is always appreciated. Looking forward to seeing you there!

BOARD MEETING

Wednesday, September 6, 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.

CNPS-SD EXECUTIVE BOARD ELECTIONS TO BE HELD IN NOVEMBER 2017

CNPS San Diego has eleven (11) members of the Executive Board whose term of service is two (2) years. Six members are elected in the even numbered years; 5 are elected in odd numbered years. This year (an odd numbered year), however, we will elect six members to the Board because one additional position is vacant.

You are invited to consider being a candidate for the Board if your membership in CNPS is current. Submit your request to the Chair of the Nominating Committee, Chapter Vice President Tom Oberbauer (vicepresident@cnpsd.org), along with a short statement of your qualifications and interest no later than **October 15, 2017**. The ballot and candidate statements will be included in the November newsletter. The six candidates with the most votes will

be elected. They will take office at the Executive Board Meeting in January 2017.

If you have any questions about serving on the Board, feel free to contact any of the current Board Members for additional information. Their contact info is on the last page of this newsletter.

**DONATIONS NEEDED
FOR A CNPS SOUTHERN
CALIFORNIA CONSERVATION
ANALYST!**

CNPS is the voice for the preservation of California's native flora. Many times, CNPS is the only party at the table negotiating for native plants and their places; too often, that seat is left vacant because we have limited capacity to take on all the important conservation battles. Now, as the pace and scale of change across California increases and Federal dynamics become more challenging, it is even more critical to maintain a strong voice for native plant conservation. We need to increase our capacity to do so, and Southern California is the first place to start.

Recently, CNPS received a generous bequest from Elizabeth C. Schwartz that is providing the opportunity to increase our conservation efforts. Others are making donations to match Elizabeth's gift, so that CNPS can expand conservation staffing to better serve SoCal. This new *CNPS Southern California Conservation Analyst* position will support SoCal CNPS Chapters and conservation volunteers, and help grow their capacity to engage in important local conservation work. The analyst will also engage in strategic work when plant conservation needs span multiple CNPS Chapters, advancing CNPS conservation policies, bringing together partners, and acting as CNPS's lead representative in these regional initiatives and processes.

It is important that this position be ongoing, since conservation success often require years of dedication and persistence. You and your Chapter can help secure the future of plant conservation in Southern California by pledging your support today. Your help will ensure that plant science and sound conservation advocacy are at the table when desert lands are at risk, when OHV

routes are analyzed, where forest and grassland management is in question, and when conservation opportunities need someone there, time and again, to let decision-makers know the importance and uniqueness of the flora.

Please, consider making a gift to support the SoCal conservation position; share your thoughts with CNPS staff and your chapter leadership; and most importantly, please lend your voice when important, urgent conservation issues come to your attention.

Donations, with a note saying the donation is for the SoCal Conservation Analyst position, can be mailed to:

California Native Plant Society
2707 K Street, Suite 1
Sacramento, CA 95816-5130

Welcome New Members!

- | | |
|--------------------|-----------------|
| Claire Acosta | Charles Orr |
| Larry Banks | Joyce Trinh |
| Jessyka Carrizales | Karen Parke |
| Yasmine Dong | Dennis Peterson |
| Jennifer Howland | Pam Raney |
| George Miller | Gregory Thayer |
| Judith Murray | John Valdez |
| Debra O'Neill | Casey Woodall |

NATIVE GARDENING

Garden Native Meeting

September 13. Garden Native is the Chapter's native gardening committee, which meets the 2nd Wednesday of each month at various locations. Contact gardening@cnpsd.org for location and time.

**Save the Date!
CNPS-SD
Garden Native Tour
in the North County Area
April 14-15, 2018**

FALL PLANT SALE

Saturday, October 14

Our fall plant sale will take place on Saturday, **October 14**, at the courtyard next to the Casa del Prado, across from the west entrance to the Natural History Museum in Balboa Park.

9 am – 3 pm for CNPS members

10 am – 3 pm for the general public

Non-members can join at the plant sale and get it at 9 am! There will be some new plants for sale this year, so check our website for details.

Preorders

CNPS members are invited to pre-order your plants and have them waiting for you by the curb! Preorders are done electronically; instructions will be posted on our website around **September 1** and orders are due by **September 24**.

Volunteer for the Sale

We need your help!!! The plant sale committee is looking for volunteers to help with this year's sale.

Seed Team: Help clean and package seeds.

Publicity: help distribute flyers, simply download one from our website and post it in a public place.

Volunteer the day before the sale: We need lots of helpers the Friday before the sale (October 13) from 9 am to noon to help set up the sale.

Volunteer the day of the sale: We need lots of helpers on the day of the sale from 8 am to 4 pm. Free breakfast and lunch for all volunteers.

Before the sale: We need a few volunteers the Wednesday or Thursday to help tag plants, at nurseries in San Diego County about 4 hours of your time.

There are also various tasks to be done a few days before the sale, if you have time please email us.

Food Coordinator: CNPS provides breakfast and lunch for all the volunteers on sale day and we need some help getting everything together.

If you have any questions about the plant sale, including preorders and volunteer opportunities, please email plantsale@cnpsd.org .

~ Carolyn Martus, Plant Sale Director

IN OLD TOWN STATE HISTORIC PARK

Saturday, September 9, 9:30 am to Noon.
**Tend the Native Plant Landscape at
Old Town State Historic Park.**

When Europeans arrived in 1769 in San Diego Bay, people had lived in the region for thousands of years. The local native Americans knew every native plant that played a useful part in their daily lives. Since 2008, the Native Plant Landscape has been planted with locally useful plants, and tended by volunteers, under the guidance of CNPS members. Currently the Landscape is home to around forty species that were growing in the coastal region when Europeans arrived, and that are known to be useful.

The Landscape is at the corner of Taylor and Congress Streets. Park in the lot at the corner of Calhoun and Taylor. The tasks for the day will be to prune some overgrown shrubs in the Landscape, and dig out any rice grass that has come up since we weeded in August. This particular weed is 99% contained, but the 1% keeps trying to make a comeback. Ten years of TLC have worn down the seed bank.

Bring drinking water and sun protection, gloves, loppers and hand pruners if you have them, or share the leader's tools and gloves. After the volunteers finish tidying up the Landscape, those who want to will relax and socialize at a no-host lunch at one of the local restaurants in the State Park area.

Do you have a question? Send an email to oldtownlandscape@cnpsd.org .

CONSERVATION

Conservation Committee

September 5. Usually the first Tuesday evening of each month. Contact **Frank Landis** at conservation@cnpsd.org for details.

NATIVE PLANT LANDSCAPE

Migrating through the Merriam Mountains

I'm still mulling over the issue of plant migration, and since I'm writing this in the middle of August as a break from working on the Newland Sierra EIR, I figured it was worth a column combining the two. This may get messy.

The Newland Sierra project does affect plant migration pathways. The property, which is in the Merriam Mountains north of Escondido, just west of I-15 and just north of Deer Springs Road, is a bit of a biological black hole, as in no SDNHM Plant Atlas or Bird Atlas data, although there are CNDDDB data and what the developer and others have reported. Still, the Merriam Mountains are considered valuable because they're a big block of undeveloped land with links to other undeveloped blocks of land. As such, this area is both a core habitat area for plants and animals, and a key link between three wildlife corridors.

Unfortunately, the Newland Sierra project intends to expand Deer Springs Road from two lanes to six lanes, and to dissect the southern half of the project site into multiple small undeveloped patches (the development looks a bit like an octopus). This is problematic for the small patches, since they're mostly chaparral. As we have seen in the canyons in San Diego, small, isolated chaparral areas tend to lose their fire followers over time, and Merriam Mountains has some old chaparral dominated by fire followers like chamise. While most of us have trouble mustering tears for old chamise dying away, I'm not at all sure what will replace the chamise in these small areas if they die without a fire. While Newland Sierra claims to be saving these areas, if the dominant plants die out and the vegetation changes radically, was it saved? Connectivity matters.

The bigger problem is that the wildlife corridor to the east has to go under I-15. There are three culverts under the highway by the Merriam Mountains, but the biggest (and most used) culvert is on the south side of Deer Springs Road, across the road from Newland Sierra. The road expansion and all the south-side development basically disconnects the northern half of the Merriam Mountains, with their two wildlife corridors to the west and northwest, from the southeast corridor on the east side of I-15. That's a big problem, but I won't be commenting on it for CNPSSD, because CNPS doesn't talk about wildlife corridors.

Why don't we talk about wildlife corridors? Because

we're a science based organization, and because we don't know enough about how much plants depend on wildlife corridors to migrate. This sounds nonsensical, but here's the question: how do plants migrate?

We don't know, and that's a problem. Obviously there's a lot of science out there, but it's dispersed among many sources. Plants tend to get dispersed as seeds or spores (with the occasional willow getting washed downstream and replanting itself). We do know that some seeds travel by gravity (meaning they roll downhill). Some are dispersed by animals, either eating them (berries), or as nuts that are stored by animals without being eaten, or as burs that cling to feathers or fur, or as seeds with elaiosomes carried by ants (Acacias), or by being carried and buried by gophers and squirrels, and by force (pods that pop seeds). Some spores and tiny seeds float on the wind and water, and some are expelled from the mother plant by force. While it's obvious that gravity-dispersed seeds aren't going to move by themselves through a freeway culvert, when we deal with animal-dispersed seeds it's much less clear. For example, we also don't know whether things like manzanita seeds will be hauled by rats and mice through wildlife crossings to be buried and cached on the other side. Nor do we know whether summer holly (*Comarostaphylis diversifolia*) and Engelmann oaks (*Quercus engelmannii*) are carried by mammals through wildlife crossings. Perhaps they depend on scrub jays and mockingbirds to fly across the freeways instead? While I can speculate, I can't say for sure, and speculating that plants need wildlife undercrossings won't stop a road from being widened. This is true even if we're trying to preserve the summer hollies and Engelmann oaks that live on the Newland Sierra property, and these plants are supposed to be protected by the upcoming North County MSCP.

This gets more generally to the problem of plant migration and assisted migration. We know so little functional information that it's impossible to say how necessary it is for humans to move and plant seeds of each species, let alone populations of each species. Can we get away with making freeway undercrossings more hospitable for deer mice lugging manzanita and summer holly seeds and for squirrels carrying acorns? Or is it more appropriate for us to collect the seeds and replant them where we think the next generation needs to grow? It's not a simple question.

Of course, it gets more complicated. One complication is the specialist help that some plants require. While I don't think it's possible to plant manzanitas where there

aren't deer mice to cache their seeds, things get a lot weirder when we're talking about plants like mistletoes, which disperse best with phainopeplas, birds that specialize in eating mistletoe berries and pooping the seeds out on branches. If we care about mistletoe migration, we have to make sure both that phainopeplas fly the migration route while carrying precious mistletoe seeds, and that there's a suitable mistletoe host plants waiting for them to defecate upon. Migration gets even more complicated with other parasitic plants, some of which, like snow plant (*Sarcodes sanguinea*) parasitize specific ectomycorrhizal fungi (*Rhizopogon ellенаe* in the case of snow plant). While some fungi produce mushrooms and other aboveground structures that throw spores into the wind and migrate thusly, others produce truffle-type underground fruiting bodies that have to be consumed by animals and moved in animal guts.

This is not to say that whole communities have to move in lockstep, as if the plants are part of some great community-machine. Plants, like humans, make communities where they settle, based on whatever is there. Some are so specialized that they can only survive with their partners, others are less picky, and none of this necessarily affects whether a plant is common or rare. So far as I know, it's okay to make new ecosystems using migrants, although as an ardent CNPSer, I'm going to insist that those communities be made with California native plants. At least in California. At least for now.

And there's another level of complexity: most plant species are not genetically uniform, not crowds of clones. When we talk about assisting plants to migrate north to deal with climate change, it may sound intuitively obvious that we should move southern, heat-adapted plants north to mate with their northern, less-adapted kin. However, back in the last ice age it wasn't so obvious. Back then, the northern plants were the trailblazers colonizing the raw landscapes left behind by the retreating glaciers. Sure 10,000 years or more has passed, but are the northern populations of some species more pioneering than southern populations? Perhaps, and if so, we don't want to swamp out that pioneering genome with a bunch of southern stay-at-homes. Also, some plant species are more heat tolerant than others are. Not everything needs to migrate to survive climate change. Creosote might do just as well where it is. Which plants need to move? It's hard to say. Stress testing a plant is tricky, especially since plant durability varies with age, and seedlings tend to be more delicate than adults. Does this matter? It might,

because if we're going to spend the effort trying to help them migrate, they should survive the process.

Unfortunately, the point of this long and twisted presentation is that we can't depend on science to answer all our questions before we have to decide whether to help a species migrate or not. Science can help a lot, but if we wait for all the answers before acting, try to let the data make decisions for us, then we're simply betting that the plants will survive without any help from us at all, because we'll never have all the answers we want. That's a big bet to make, especially for familiar coastal species like Torrey pines which have no parkland pathways up the coast for them to colonize, due to a century of urbanization.

In the meantime, I've got to figure out if I want to argue that plants need to be able to move under freeways and across roads without getting run over. It might sound weird, just as making a deer mouse/summer holly seed undercrossing sounds weird. But until we decide if and how we're going to help plants migrate, then we've got to make it easier for the mice, the jays, the mockingbirds, the coyotes, the phainopeplas, and everything else, to move the native plants instead.

~ Frank Landis, Conservation Chair

Conservation Conference



<https://conference.cnps.org>

February 1-3, 2018
Workshops & Field Trips January 30-31

Los Angeles, CA
Los Angeles Airport Marriott

January 30 & 31: Pre-conference field trips and workshops

IN THE FIELD

Jamul Mountains

June 2015

The Jamul Mountains are not as well recognized as some of their nearby neighbors. They are overshadowed by Otay Mountain at 3,500 feet and San Miguel Mountain at 2,567 feet since they top out at 2,059 feet at the highest point. The Jamul Mountain stand between SR-94 as it passes through the southern part of Jamul, and Proctor Valley. Proctor Valley is notorious for the strange events that are purported to have occurred there: Proctor Valley monster and two

headed cows; remnants of rumors from my youth growing up in the vicinity. Like San Miguel and Otay Mountains, the Jamul Mountains are composed of metavolcanic rock. This is volcanic rock that was deposited as part of a group of very tall mountains like the Andes, but in an island arc off the west coast of North America 106-108 million years ago (Kimbrough, 2014). Since I last climbed the Jamul Mountains in the late 1970's, many things have changed including the fact that a large part of the surrounding land has been preserved, a steel barrier has been constructed to prevent OHV and trucks from driving cross-country over the slopes, and major fires have occurred.



Jamul Mountain



Looking across Proctor Valley at San Miguel Mountain

I set out on an overcast morning, overcast where I live, but clear and sunny by the time I reached Proctor Valley. The temperature of the day was predicted to be in the mid 90's. I drove down Proctor Valley Road and could see that some things have not changed, especially the washboard surface and the debris from target shooting along the side of the road. I parked my vehicle near a lone Eucalyptus tree and set off toward the peak.

The trail up the mountain is an old vehicle track. It first drops down into a valley with a grove of Eucalyptus

trees. At that time, there was a breeze and the temperature was already climbing in the bright, hazy sun. A western lark sparrow produced its ruffly, buzzy song from a Eucalyptus tree on the edge of a grassy patch. *Deinandra fasciculata* (Fascicled Tarplant) was in good flower on the clay areas. A mockingbird and Cassin's kingbirds were calling from Eucalyptus trees as they flew from the upper branches. Across the road from where I parked, *Adenostoma fasciculatum* (Chamise) was dominant, but on the south and west facing slopes, Coastal sage scrub with *Artemisia californica* (California sagebrush) and *Malosma laurina* (Laurel Sumac) were the dominants.

The fact that Chamise grows in Proctor Valley has always fascinated me. It seems overall like a relatively dry area with maybe 13 or 14 inches of rain a year since it is in the rain shadow of San Miguel Mountain and it is very hot in the summer. I would expect that the vegetation would all be Coastal sage scrub but here is Chamise. The soil may have a major part in the explanation why it is there.

The temperature continued to rise in the absence of a breeze of any kind as I climbed up the east side of the valley. *Rhamnus crocea* (Redberry) was recognizable with small, shiny dark green leaves in the glaring light. The old road was very steep as it crossed a grassy clay soil slope. Lark sparrows were again visible with their white tipped tail feathers. Deer tracks were evident in the fine texture soil. Shiny black Phainopeplas flew nearby like large butterflies creating their weird sounding song that is usually only audible from a short distance.

San Miguel became more visible to the west with the telecommunication towers visible. In the early morning, funnel spider webs were still covered with dew, glistening in the sun, but any trace of overnight condensation was evaporating rapidly. The south facing slope was covered with *Bahiopsis laciniata* (San Diego Sunflower), *Salvia munzii* (Munz's Sage), *Malosma laurina*, *Isocoma menziesii* (Spreading Goldenbush) and *Artemisia californica*. The pathway up the mountain alternated between chipped and broken rock, a gravelly surface of 10 mm. sized pebbles, and reddish clay. At the bottom of the valley, the surrounding land had the appearance of wilderness because no man-made structures were visible except for the towers on San Miguel Mountain. Farther up on the climb, urbanization became more visible. Sounds carried in the still air. Cars traveling down Proctor Valley Road could be clearly heard rattling along the washboard surface.

Meadowlarks were calling from the grassy areas and it was revealed that these mountains lie in the approach for Lindbergh Field air traffic. At certain times of the day numerous passenger airlines could be seen and heard overhead. In fact, the Google Earth image for the mountain included a large passenger jet passing over the mountains.

Farther up, the trail becomes less defined. *Porophyllum gracile* (Odora) appeared on the pathway. Its name indicates that it has a strong scent which may be hated or liked by people depending on their scent detection experience. To me, if you crush it between your fingers it has a different odor than the smell as it persists on one's skin, a little like hot-dogs to me. A barely perceptible east breeze could now occasionally be felt and El Cajon Mountain was clearly visible in the hot haze. *Deinandra fasciculatum*, *Salvia munzii*, *Adenostoma fasciculatum* and *Chorizanthe fimbriata* (Turkish Rugging) were all in flower. *Salvia munzii* has an odor that is more aligned with *Salvia mellifera* (Black Sage) though its overall appearance is that of a reduced size *Salvia clevelandii* (Cleveland Sage).

At the top of one of the crests, I encountered one of the first *Lepechinia ganderi* (Gander Pitcher-sage) shrubs. The large greenish, brownish triangular leaves were unmistakable as was the old musty minty Vick's VapoRub scent. At first at this elevation, none were still in flower. *Chamaebatia australis* (Southern Mountain Misery) was also growing on the north-slope with *Ceanothus tomentosus* (Ramona Ceanothus) and *Arctostaphylos otayensis* (Otay Manzanita) as well. These were all species that grow on Otay Mountain and San Miguel Mountain. *Eriodictyon trichocalyx* (Felt-leaf Yerba Santa) was growing there as well as *Ceanothus crassifolius* (Thick-leaf Ceanothus). On a side ridge near this high hill, plants included *Salvia clevelandii*, *Pickeringia montana* (Chaparral Pea) a large shrub with spines, and more *Chamaebatia australis* and *Arctostaphylos otayensis*. *Calochortus weedii* (Weed's Mariposa Lily) was in full flower here as well.



Calochortus weedii
(Weed's
Mariposa
Lily)

Nearby on the south slope, *Salvia munzii* still persisted and the beautiful *Delphinium cardinale* (Scarlet Larkspur) to a meter tall grew in a cluster in one location.

There are times when one looks at the extremely steep trail ahead and thinks twice about going forward. It is steep enough and the gravel loose enough that a misstep could send one tumbling down the slope. On this climb, there were a number of these situations including the last part to the top.

There are actually three peaks either just above or just under 2,000 feet in elevation. One was the hill west of the actual peak at over 1,900 feet, steeply separated by a saddle that is 200 feet lower in elevation from the high part itself. Another, the third one, is located to the south a mile and a half away. I could see it with some oaks on the north-slope. At about 10:30 am, the air patterns changed and a breeze from the west picked up; however, it was very warm by that time as well.



Delphinium cardinale
(Scarlet Larkspur)

I made it to the top where someone had placed a metal stake that had been wrapped with a couple of deflated metallic mylar balloons. A relatively small yellow and black swallowtail butterfly was present, maybe a small form of Anise swallowtail, and a Pale swallowtail, were hill-topping there. A large red dragonfly darter was also there. While I stood there, a large black swallowtail flew in and then flew off. I did not get a good look at it but it gave the impression of a small bat. I wondered if it could have been a Black Witch moth that feeds on acacia, but it seemed more like a swallowtail. It might have been a pipevine butterfly since they are mostly black.

I sat down to eat lunch. The rocks were hot, I could feel the heat passing through my pants. I wore gloves and I

could feel the heat of the rocks through the surface when I placed my hands on them to raise myself. It was probably 95 degrees. The wind from the west had become quite warm.

I searched for *Clinopodium chandleri* (San Miguel Savory) where I had seen it before, and *Calochortus dunnii* (Dunn's Mariposa Lily) which others had seen there before. I found slender *Calochortus* fruits on the peak top that could have been the *Calochortus dunnii*. The *Calochortus weedii* has more robust fruits.

It seemed drier here than it had been on the other peaks that I had climbed recently including Syquan, Lawson and Barber Mountain. When I had been on San Miguel, it was drier on the east side than the west side. The rain that fell in May, only 3 weeks before, was somewhat spotty and the east side of San Miguel was drier, so it stands to reason that the Jamul Mountains, just to the east of that, might be drier too. However, the *Lepechinia* was in pretty good flower on the upper slopes of the Mountain and the *Salvia munzii* and *Salvia clevelandii* were in flower higher up on the mountain.

I gradually worked my way back down. The drop from the peak to the hill to its west was very steep and climbing back up to the west over the next knoll was just as steep. I drank a lot of water, about ¾ gallon, on the mountain. By the time I walked all the way back down, it was still hot. I rewarded myself with two bottles of Gatorade in the car.

The Jamul Mountains are a very interesting place that is probably better visited in May. With their soils derived from Metavolcanic rock, they are another piece of the unusual soil type puzzle.

~ **Tom Oberbauer**, Vice President
(Photos by the author unless noted otherwise)

Kimbrough, D. L. 2014. Santiago Peak volcanics: early Cretaceous arc volcanism of the Western Peninsular Ranges batholith, Southern California. In: D.M. Morton, F. K. Miller eds. Peninsular Range Batholith, Baja California and Southern California. Geological Society of America Memoirs 211:345-363.

We are always looking for photos of native plants, flowers, and field trips for our newsletter or to put on our website. If you would like CNPS-SD to use your photos, please send them to newsletter@cnpsd.org and/or webmaster@cnpsd.org

RELATED ACTIVITIES

Cal-IPC Symposium October 24-27, 2017 Palm Springs, CA



"Working Across Boundaries"

For more info: <http://cal-ipc.org/symposia/index.php> .

Mt. Helix Park Adopt-A-Plot Program

Join a team of plant enthusiasts and California native plant experts committed to restoring Mt. Helix Park's landscape to a California native habitat. **To volunteer for this or any of the Park workdays and projects, contact Peggy Junker at pjunker@mthelixpark.org or by calling the Park office at (619) 741-4363 Monday, Wednesday or Friday from 9 am until noon.**

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, July 10 for the August newsletter, etc. Please submit items to newsletter@cnpsd.org

CNPS-SD Activities Calendar September 2017

- 9/6: Board Meeting, p.2
- 9/5: Conservation Committee Mtg, p.4
- 9/9: Garden Native Mtg, p. 3
- 9/16: Garden Native Workshop, p.1
- 9/19: 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: _____

Mail check payable to "CNPS" and send to: CNPS, 2707 K Street, Ste 1, Sacramento, CA 95816-5113.

CALIFORNIA NATIVE PLANT SOCIETY

San Diego Chapter
C/o San Diego Natural History Museum
P. O. Box 121390
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Dedicated to the preservation of the California native flora
CALIFORNIA NATIVE PLANT SOCIETY – SAN DIEGO

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