



CALIFORNIA NATIVE PLANT SOCIETY
San Diego Chapter Newsletter

CHAPTER MEETING

Tuesday, June 16
Casa del Prado, Balboa Park
Room 104, 7:00 p.m.

Cuyamaca Rancho State Park Reforestation Project by Mike Wells and Lisa Gonzales-Kramer

The Cuyamaca Rancho State Park (CRSP) Reforestation Project is a California State Parks (CSP) initiative to restore the native mixed conifer forest in CRSP, 98% of which was burned by the catastrophic Cedar Fire in 2003. The fire intensity was so great that conifers within the park experienced greater than 95% mortality. The seed bank and cone-producing forest canopy were nearly destroyed and post-fire surveys conducted between 2004 and 2008 found minimal conifer regeneration on these formerly forested lands, while shrub cover had increased from 3% to 31%. Without active reforestation, site conversion to shade-intolerant brush and exotic annuals was likely to be permanent.

Conifer forest has become a vanishing habitat in San Diego County. Between 2002 and 2007, over 51% of the montane Mixed Conifer Forest (MCF) in San Diego County was burned by wildfires. Prior to the Cedar Fire, CRSP held approximately 20% of the MCF habitat in the County.

In 2007, the Colorado Desert District of CSP initiated a mixed conifer forest restoration project to re-establish native conifer trees at CRSP. The project consists of planting 2,530 acres of formerly forested lands in a mosaic of patches that will become centers for seed dispersal and are expected to restore the larger conifer forest. The restored habitat will provide important protected areas for a wide variety of native and special-status species which were found in CRSP prior to the fire.



Young conifer saplings begin to overtop the surrounding vegetation. Seedlings were planted on this site along Azalea Springs Road in 2009 after the 2003 Cedar Fire destroyed 95% of the conifer forest in CRSP. For more information visit:

www.parks.ca.gov/CuyamacaReforestation .

6:30 p.m. – Natives for Novices. Presenter: Greg Rubin. Topic: **“Argentine Ants - Are They Killing Our Natives?”** Greg will give us the latest information he has gleaned regarding this latest danger to the natives in our gardens. Don't miss it!

7:00 p.m. – refreshments, browsing, & socializing.

7:30 p.m. – presentation.

Chapter meetings are free and open to the public. They are held in the Casa del Prado, just west of the Natural History Museum, in Balboa Park.

Mike Wells, PhD, is a retired Colorado Desert District Superintendent. He was instrumental in initiating the CRSP Reforestation Project and was also manager of the CSP Prescribed Fire Program for nine years. Dr. Wells is currently a retired annuitant and science advisor to the project. He is an adjunct professor and lecturer at the University of San Diego.



Mike Wells, PhD
Colorado Desert District Superintendent
(retired)
California State Parks

Lisa Gonzales-Kramer is an Environmental Scientist and the Project Manager for the CRSP Reforestation Project. She has been involved in reforestation efforts since 1990 in the Midwest and the West. Ms. Gonzales-Kramer holds a BS degree in Biology from Adrian College and previously worked in plant pathology research.

Lisa Gonzales-Kramer
Environmental Scientist
California State Parks



WELCOME NEW MEMBERS!

Shary Berntsen	Jeanyna Potter
Joan Braunstein	Antonella Zampolli
Adam Graves	Luca and Micaela Nursery
Holly Jones	San Dieguito River Valley
Victoria Kilbert	Conservancy



BOARD MEETING

Wednesday, June 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 falls on a holiday. Members are welcome to attend as observers. If you wish to discuss an issue, please email president@cnpsd.org to get your issue on the agenda.

TECOLOTE CANYON NATURAL PARK



June 7; 8 a.m. to noon. Meet at the Tecolote Nature Center on the first Sunday of the month. Wear sun protection and comfortable walking shoes; bring water. Rain at 8 a.m. cancels. Directions: exit I-5 at Seaworld/Tecolote exit. Go east (away from Mission Bay) on Tecolote, past the ball fields, along the driveway to the very end. Free and open to the public.

Let's Name Our Newsletter!

Most of the CNPS chapters across the state have interesting names for their newsletters. Some are based on the chapter's chosen flower, such as **The Calypso** (Dorothy King Young Chapter), **The Bay Leaf** (East Bay Chapter), **Gold Field Notes** (El Dorado Chapter), and **Mimulus Memo** (Kern County Chapter). A couple of chapters have chosen scientific names for their newsletters: **Artemisia** (South Coast Chapter) and **Obispoensis** (San Luis Obispo Chapter).

Our newsletter is currently called the San Diego Chapter Newsletter, but we could have a name more interesting than that. Our chapter flower is the Matilija poppy (*Romneya coulteri*). The Channel Islands Chapter newsletter is called the **Matilija Copy**, but maybe we can come up with another play on the name of our chapter flower. Or something completely different!

Send suggestions for a newsletter name to newsletter@cnpsd.org by **June 30**. The Board will consider the names at the July Board meeting.

POLLINATORS

Milkweeds and Monarchs



California milkweed (*Asclepias californica*). Photos by Board Secretary **Mike Evans**.

Native milkweeds are a critical part of the Monarch butterfly's life cycle.



A "Field Guide to Common Milkweeds of California" can be downloaded from the Xerces Society website:

http://www.xerces.org/wp-content/uploads/2011/10/CA-milkweed-guide_XercesSoc6.pdf



FIELD TRIP

Sunday, June 21. 10:00 a.m. - 4 p.m.: Cuyamaca Rancho State Park, Undisturbed and Reforestation Sites.

Now in its sixth year, this annual event for CNPS members and others will revisit parts of Cuyamaca Rancho State Park to see natural post-fire regrowth and various stages of growth on reforestation sites. We have a list of 56 special species identified by the Park from among around 450 plants in a 1984 Park plant list to nudge us to identify the plants we will see on Middle and Cuyamaca Peaks.

We expect to see many annuals, perennials, grasses, lilies, and shrubs in bloom. In June 2012 we found that two sierra gooseberry (*Ribes roezlii*), a beautiful member of its genus, had survived in one of the reforestation sites where all the shrubs had been cut and burned before conifer seedlings were planted.

The pea family (Fabaceae) is well-represented in our mountains by two beautiful species of *Hoita* (creeping leather root [*Hoita orbicularis*] and large leather root [*H. macrostachya*]), broad leaved lotus (*Hosackia crassifolia*; = *Lotus crassifolius*), and a rare plant, velvety false-lupine (*Thermopsis californica* var. *semota*). These four species thrive on the 30" to 40" of rain that falls on the peaks.



Velvety false-lupine (*Thermopsis californica* var. *semota*); Photo from CalPhotos ©2005 Christopher L. Christie.

Last year up on the Peak, which didn't burn in 2003, I observed a beautiful little parasitic plant that resembled "pine drops" (*Pterospora andromedea*). This would have been a range extension. Since I do not have a botanist's qualifications, nor a collector's permit, I don't know if I made the correct ID.

I hope we will have some qualified botanists on our CNPS trip who can solve plant mysteries. Just in case, I'll record GPS data and take photos if we see anything that needs more botanical expertise.

Park and meet at 10:00 a.m. at the junction of Milk Ranch Road and SR 79, about ¼ mile south of Cuyamaca Lake. We'll have up to 1,000 feet of elevation gain/loss walking on fire roads and trails, and will go off-trail to look for plants where the mood strikes the leaders. We'll

eat lunch near the saddle between the two peaks, with views to the ocean if the day is clear. We'll return to SR 79 by 4:00 p.m.

If you want to ride-share, meet at 8:30 a.m. in the parking lot behind the Denny's on Friars Road just east of SR 163, or at 8:50 the Fuerte/Severin park'n'ride on the south side of I-8 just east of Grossmont and the SR 125 Junction. Anticipate being back to Denny's by 5:30 p.m.

Bring several quarts of water, snacks, lunch, camera, binoculars, and a notepad or device for keeping notes. Wear solid-toe hiking shoes, sun protection and long sturdy pants; and gaiters if you have them, because when we are off trail, we will be in snake territory. You can opt out of going off-trail, of course.

If you want to ride-share, meet at 8:30 in the parking lot behind the Denny's on Friars Road just east of Hwy 163, or at the Fuerte/Severin park'n'ride on the south side of I-8 just east of Grossmont and the 125 Junction. Anticipate being back to the Denny's by 5:30 PM.

Rain wherever you live at 7:30 AM will postpone the trip to the next Sunday, June 28, with all details the same as this notice. I'll post that rescheduled date on the chapter website if the trip is postponed due to rain.

No RSVP required. Dogs are not permitted in State Parks. Q's? **Contact Kay at fieldtrips@cnpsd.org** .

RECEIVE YOUR NEWSLETTER ONLINE

To receive your newsletter via email, please contact us at:

enewsletter@cnpsd.org

Save the environment by not receiving a paper copy
AND your newsletter will be in **COLOR** and have
embedded links!

CONSERVATION

Conservation Committee

June 2. Meets the first Tuesday evening of each month. Contact **Frank Landis** at aresurvey@cnpsd.org for the location.

Dog-Hair Sequestration?

There are a couple of new studies that I'm trying to get my head around, so I figured I'd share them and let you share my perplexity.

One is media reports that the US Forest Service had surveyed California forests this spring and found 12.5

million dead trees. A bit of digging unearthed a link to the Forest Health Protection Survey of April 15-17, 2015, in which the USFS scientists say they found 10,450,000 dead trees, with 835,000 acres containing dead trees out of the 4.1 million acres aerially surveyed. I'm not sure if this is the same report, but if it is, it's a great example of the media repeating each other's numbers without checking to see if the first reporter got it right. In any case, they're reporting that the major cause of tree death is bark beetles. In wetter conditions, conifers gum the bark beetles up with great gouts of sap. When it's dry, they can't deploy this defense as successfully, and they die when the beetles girdle the trees.

The second report is a forthcoming report in the journal *Forest Ecology and Management*, "Aboveground live carbon stock changes of California wildland ecosystems, 2001–2010" by Patrick Gonzales of the U.S. Park Service and three other authors. Looking at Landsat data, they estimated that California's forests lost $0.8 \pm 0.2\%$ of their live carbon every year, with most of the uncertainty attributed to their methods, not to variation in loss. Trees were dying, and wildfires were blamed.

This all gets a bit awkward. Some of California's forests (redwoods and their cronies) accumulate carbon at truly enormous rates. Most of the rest of our forests are nowhere near so prodigious. However, with our state striving to reduce carbon emissions, it all matters.

But some of the things they said don't particularly make sense. One is Gonzalez saying that more fires (both human set and lightning caused) would help forests store more carbon (<http://www.climatecentral.org/news/california-forests-climate-polluters-18941>). I *think* his idea is that the paradigmatic Sierran forest, with its few large, old trees, would allow the fires to go through without causing crown fires and killing lots of trees, and that would keep the carbon in live trees. Whether or not this would be the maximum amount of carbon that the landscape could store is another question, but the presence of dog-hair forests (thickets of young pines with heavy fuel loads of pine needles and other litter on the forest floor) suggests it might not be. If it was, the big old trees should shade out the young ones, and that isn't what happens.

Of course, the bark beetles preferentially target the big old trees, just as fires target the young dense stands. All types of forest are vulnerable.

What to do, what to do, what to do...?

Someone emailed me and asked whether CNPS would support planting, say, 10.45 million trees to replace the

ones that had died. Let's see how that would play out: a lot of young trees would probably form dense, dog-hair forests. They'd be prone to big wildfires for about 150 years until they thinned out and a few grew large trees, at which point they'd be relatively more fire resistant, but more prone to bark beetles during increasingly dry years. Would that work well enough? Hmmm.

How much carbon they would sequester is a messy question, but there's a theory called self-thinning (also known as Yoda's power law) which says that tree biomass rises to a fairly constant level on a plot. At that point, trees start thinning each other out until there are a few large trees, but biomass remains fairly constant during this time. This can't be right, if old trees continue to sequester carbon, but it does point to an inconvenient little fact: you can sequester a lot of carbon in a dog-hair forest. Keeping it there for more than a few decades is the problem.

A bigger problem is that we're kind of damned if we do plant lots of trees (which may well burn young), damned if we don't (as old trees are lost to bark beetles).

Worse, in my opinion, whatever happens, the people in charge are going to be in favor of lighting more fires, because that's apparently the doctrine now. I'm wary of this, because it seems to fall squarely into the HL Mencken category of "for every complex problem there is an answer that is clear, simple, and wrong." If young trees and old trees die of separate causes, how does fire solve the problem?

It almost makes me want to switch to something that wasn't so plagued by bugs and fire, like oaks or chaparral. Almost.

A few weeks ago, Board Member Michael Gonzales emailed me an article from SERCAL's *Ecesis* newsletter, about the costs of getting carbon credits for cottonwoods in a restoration. Trying to get any money at all out of the project turned out to be difficult, both because of the way the cap and trade system is set up, in that uncertain estimates reduce value of the carbon credits, and also due to the cost of doing the necessary surveys. Right now, there's not much money to be made off of planting for cap and trade, at least on the small scale.

Worse, we don't have simple, accurate ways to figure out how much carbon California's angiosperms sequester, be they oaks or chaparral. Unless such methods are developed, no one's going to get rich saving chaparral for its carbon sequestration market value. Or oaks, for that matter.

I should also point out the chaparral does not appear to

sequester as much carbon as do big conifers. Part of the problem is that the plants are smaller (which makes them more drought tolerant, but allows them hold less carbon per plant), while part of the problem is that most of that carbon is sequestered in the shrub roots underground, where it's a pain to measure. It's too bad all there's so much animosity towards shrublands right now. It's going to be hard for anyone to do the research and see how much carbon the plants really do sequester. They might not be as wimpy as we think they are, but who's going to know that?

We might be stuck with conifers as our primary vehicles for carbon sequestration for the time being, because at least the foresters know how to measure them with some air of accuracy. This somehow will involve managers setting fires, planting, and keeping trees from dying in the drought. I'm not sure how it all will work out, and I'll be fascinated to see what happens as the carbon market matures. Will all this work pay off, or will the low value of the credits make it a boondoggle? Now is a good time to place your bets.

Does any of this make you want to reduce your carbon footprint and perhaps, oh, not emit so much carbon in your daily life? That really might be simpler than trying to reengineer all our forests to act as carbon sponges for the global market.

~ Frank Landis, Conservation Chair

In Memory of Gary Dean Suttle Naturalist and Conservation Activist 1945-2015

Gary Suttle grew up roaming the sage scrub hills of Pacific Beach, contentedly remaining in San Diego County for most of his life. Ever brimming with awe and wonder as a witness to the natural world, he decried the widespread destruction of San Diego's wild habitats.

Around 1990, Gary was the lodestar of a successful campaign to halt the proposed Jackson Drive Extension, a four-lane road that would have sliced through the western section of Mission Trails Regional Park. For that, the local Sierra Club named him Conservation Activist of the Year in 1992.

Gary received an M.A. in Geography at SDSU in 1974—his thesis was entitled "The Freebeach Phenomenon near La Jolla, California." His underlying motivation in selecting this unusual subject matter was to bolster the campaign to stop a proposed road down Indian Canyon,

part of Torrey Pines State Park. The road would have desecrated this remarkable and little-known canyon, while rendering nude bathing illegal on Blacks Beach due to "improved" public access. It was not built.

Gary was an avid hiker with extraordinary verve for climbing mountains. For over a decade, while working at Mission Beach School, he would wake up before dawn to climb Cowles Mountain prior to work. On some mornings, he would climb it twice. In the 1990's, he ambitiously set out to be the first person to identify and climb the highest mountain in each of California's 58 counties, authoring a popular guidebook titled "California County Summits," published by Wilderness Press in 1994.

Having grown up in its midst, Gary had a special affinity with the Nuttall's lotus (*Acmispon prostratus* [=*Lotus nuttalianus*]), which he preferred to call the beach lotus. He worked for years to survey the Nuttall's lotus throughout its limited range, documenting many previously unnoticed populations and raising awareness of the species amongst land managers and property owners. He personally convinced San Diego city parks officials to set aside a two-acre section of Hospitality Point (on Mission Bay) as a dedicated Native Plant Area to protect the lotus, removing volleyball courts and picnic tables, installing an interpretive panel, and coordinating habitat restoration efforts. In 2006, Gary received the State CNPS Volunteer Recognition Award for his diligent work on behalf of the Nuttall's lotus.



Gary Suttle with flowering Nuttall's lotus (*Acmispon prostratus* [=*Lotus nuttalianus*]) at Hospitality Point, 2006.

← Nuttall's lotus

Gary found great joy in the focused pursuit of knowledge about local species. In the early 80's, he botanized for several years at Torrey Pines State Reserve with his friend David Rawlins, together finding 52 additional species for the Reserve's plant list. In 2005, the pair turned to a wide-eyed pursuit of Boraginaceae species in the county, especially the genera *Cryptantha*, *Plagiobothrys* and *Pectocarya*. In the later years of his life, Gary developed a seemingly single-minded passion for dragonflies and damselflies. He traveled statewide in pursuit of far-flung species and carried out years of field-surveys at San Diego County water bodies, contributing significantly to knowledge of the distribution and life

histories of Southern California Odonates.

Diverging from his Christian upbringing, Gary developed his own nature-based Pantheist spirituality, inspired early on by authors such as Joseph Wood Crutch and Aldo Leopold. Revering the earth as sacred, he equated God with the ever-renewing creative force of Nature itself. Gary established a "religious conservation organization" called the Pantheist Association for Nature. Much of his writing on the subject can be found online at [\[http://naturepantheist.org\]](http://naturepantheist.org).

Gary's reverence for wild nature and devotion to protecting and caring for native habitats stands as an inspiring example for those who ally themselves with the land. His generosity of spirit, consummate thoughtfulness, mirthful sense of humor and tireless enthusiasm will be greatly missed by all who knew him.

Gary Suttle died at his home in Poway on March 14, 2015, after an eight-year struggle with bile duct cancer. He was 69 years old, and is survived by his wife, sister, and two children. ~ Tyler Suttle

NATIVE GARDENING

Native Gardening Committee

June 10. Meets 2nd Wednesday of each month. Contact **Mike Gonzales** at gardening@cnpsd.org for info.

Propagation Committee

The next work group meeting will be Tuesday, **June 9 at 10:00 a.m.** at the City Farmer's Nursery. Contact **Jim Wadman** at propagation@cnpsd.org for information.

Old Town Native Plant Landscape

Partners in Grime Needed!

Saturday, June 13: Work Party - 1 to 3 p.m. The rains helped all of our wonderful natives, but also some unwanted weeds germinated. The cheeseweed is the worst. We'll be just in time to dig tiny ones before they get growing. The project is at the corner of Taylor and Congress Streets opposite the train/trolley/bus depot. Free parking in the Cal Trans Lot across Taylor. Have sun protection and water, bring gloves and favorite weeding tool, or borrow ours. Restrooms are nearby. Questions? Email Kay at fieldtrips@cnpsd.org.

~ **Kay Stewart, Field Trip Chair**

FALL PLANT SALE

Mark your calendars! The Fall Plant Sale will take place on Saturday, **October 17, 2015**, at the courtyard next to the Casa del Prado, across from the west entrance to the Natural History Museum in Balboa Park. The plant sale committee is always looking for help. Some jobs can be done on your own time while others work in groups. Following is a list:

- Propagate and water plants at City Farmer's Nursery; package and label seeds for sale.
- Work with members at our local native nurseries; checking stock and labeling plants for the sale.
- Write-up sales tickets or provide security at the sale. Help customers move plants.
- Unload plants and set up the patio on the day before the sale.

To get involved with one of the chapter's largest fundraisers, please contact **Connie di Girolamo & Mike Gonzales** at plantsale@cnpsd.org.

Pre-ordering: CNPS members are able to preorder plants and they will be waiting for you on sale day. Details and information will be posted on the chapter's website at the very end of August and preorders are due by September 15th, 2015.

RARE PLANTS

Searching for Rare Plants at Lawson Peak

Portions of Northern California are known to contain serpentine, a rock that contains high concentrations of magnesium and iron. Because of the chemical composition of mafic soil derived from serpentine, plants often have difficulty growing on it. In many locations, it supports endemic plants that may have some sort of competitive advantage over other species when growing in the mafic soils. These endemic plants either evolved with adaptations to survive on the serpentine and outcompete other general species there or they had preexisting adaptations to survive on it and are using it as a refuge while being out competed on the more general soils by more generally adapted plants.

While not quite as potent as serpentine, gabbro or black granite rock also weathers to create mafic soils and there are a number of plants that seem to do best on it. San Diego County has significant areas with gabbro soils and

a number of gabbro adapted species. Many of these species are considered rare and endangered or of some special status due to their limited distributions.

Recently I had the occasion to explore a large gabbro mountain formation with an adjacent granodiorite peak with Margie Mulligan, a local botanist with experience surveying for rare plants on Forest Service and other public lands. Mount Woodson is known for its huge whitish tan colored boulders and is the namesake for a rock formation type, Woodson Mountain Granodiorite, that has the boulder characteristic. Lawson Peak itself is a large bouldery mass of 3,664 feet in elevation composed of Woodson Mountain Granodiorite, but adjacent to it is a large mountain mass of gabbro that peaks out at 3,515 feet. One can easily distinguish gabbro peaks from granitic peaks by their angular pyramidal shape and lack of boulders since gabbro itself weathers away to a red, iron rich soil.

Access to Lawson Peak and the adjacent gabbro mountain is on Lyons Valley Road and Forest Service Road 16503. The road is gated but the gate remains open. When one pulls up in a car, as soon as you open the door, you know that there are interesting plants nearby. The scent of *Salvia clevelandii* (Cleveland sage) engulfs you with its sweet laundry soap odor that carries for a long distance in cool, moist air. *Salvia clevelandii* occurs on metavolcanic rock in a few places and some sedimentary soils near Torrey Pines State Park but otherwise, if you smell it, you are near or on gabbro soil. In late April and early May, its large bright blue flowers and blue gray leaves are apparent. No wonder that it is used as an ornamental plant. Naturally, it occurs mostly in San Diego County and in adjacent northern Baja California. The scent of Cleveland sage follows all the way up the mountain and fills one with anticipation on the unusual gabbro soil type.

In some ways, it is a misnomer to call this a road. It is more like a shallow ravine with irregularly sloping sides, occasional rock faces at least a meter high and boulders the size of dishwashers loose on the bottom. Walking up the road, it is easiest to step along the ridge like shoulder away from the cut bank.

Here, the vegetation is a mix of Chamise chaparral and elements of Coastal sage scrub with *Malosma laurina* (Laurel sumac) and *Hesperoyucca whipplei* (Our Lord's candle).

Annuals were not common, though *Chorizanthe fimbriata* (Turkish rugging) laid a pink-red carpet along a few of the slopes. However, herbaceous perennials were common. White and round flowering heads of Red-skinned wild onion (*Allium haematochiton*) were

common the entire route in the gabbro portion. A quick check with the hand lens verified that it had flattened lobes on the top of the ovary differentiating it from the closely appearing *Allium marvinii* (Yucaipa onion) with the spiky structured ovary top.

A short distance up the trail, occasional shrubs of the orange-yellow flowered *Mimulus aurantiacus* (Bush monkey flower) were in flower as well as bright yellow-flowered *Keckiella antirrhinoides* (Yellow bush penstemon). One thing of note was that ferns were quite common, and not just *Pentagramma triangularis* (Silverback fern) but also *Pellea mucronata* (Birdsfoot fern) and *Dryopteris arguta* (California wood fern). The newly described *Pentagramma triangularis* ssp. *rebmanii* (Rebman's silverback fern; Winner and Simpson 2007), found only in south central San Diego County and northern Baja California, was also seen up in the rocks above the bank along the road. It is characterized by a scurfy or mealy feel on the upper surface.



Pentagramma triangularis ssp. *rebmanii* (Rebman's silverback fern). Photos ©Jon Rebman, SDNHM San Diego County Plant Atlas website.



It was a cool day for a climb up a steep route, partly cloudy but with occasional dappled sun and a fresh breeze from the west. A short distance farther *Packera ganderi* (= *Senecio ganderi*; Gander's butterweed) appeared beneath the shrubs. They were occasional at first. Their dark green rounded leaves with serrate edges were visible but as the road climbed up hill, individual plants were found that still held their bright yellow flowers. The flowering plants were mostly along the edge of the slope or in openings while those growing in the midst of the chaparral were mostly vegetative. They are in the sunflower family with the typical ray flowers forming what look like petals around a small cluster of disk flowers in the center. This area is the type locality for the species though it had also been collected in 1940 on Tecate Peak by Frank Gander (Barkley and Beauchamp 1974), former curator of Botany at the San Diego Natural History Museum.

Packera ganderi grows and flowers in the open

understory of the chaparral but it expands when an area has burned or even if the soil is lightly disturbed. This entire area burned in the Laguna Fire of 1970 which seemed to stimulate the appearance of the *Packera* when it was collected before it was described. On Magee Road near the County border with Riverside County, it appeared at one time in an area that had been disturbed while testing for leach field placement. During the late 1970's following the description of the species, I hiked up this road to the *Packera* to photograph the flowers of the plant, however, it appears to be very numerous now, maybe even more numerous than I recalled.

As we climbed farther, the understory of the chaparral changed in that a prostrate ground cover began to appear. It was the bright blue-flowered *Salvia sonomensis* (Creeping sage). While the sweet scent of the Cleveland sage was still in the air, the creeping sage had a more typical *Salvia* odor. It has a very odd distribution – it occurs on a number of peaks in southern San Diego County and near Palomar Mountain, but skips up to Santa Barbara County and points north on the coast ranges and the Sierra Nevada Mountains. Only one location exists between, at a helicopter landing site in Los Angeles County in a situation that could have been purposefully planted. It seems to prefer the unusual soil types like gabbro or metavolcanic soils that are on Otay Mountain. The entire understory was covered with the *Salvia sonomensis* on this slope leading up to Lawson Peak.



Salvia sonomensis (Creeping sage). Top photo from CalFlora ©2005 George W. Hartwell; bottom photo from www.sanjose.watersavingplants.com



The large red-flowered lotus in the pea family, *Acmispon grandifloras* (Grand lotus), also appeared in the understory and along the edge of the road.

Acmispon grandiflorus var. *grandiflorus* (Grand lotus). Photo from Calflora © 2011 Anna Bennett.



Arctostaphylos glandulosa ssp. *glandulosa* (Eastwood manzanita) became common as the road climbed. Additional understory plants included the spearmint scented *Monardella hypoleuca* ssp. *lanata* (Felt-leaved monardella) and an occasional *Calochortus alba* (Fairly lantern). Up slope on the north facing side, *Cercocarpus betuloides* (Mountain mahogany) showed up as nearly tree sized shrubs along with a few *Arctostaphylos glauca* (Bigberry manzanita). *Eriodictyon crassifolium* (Yerba santa) and *Ceanothus oliganthus* (Hairy ceanothus) also grows on the upper slopes. One interesting point was that while there were quite a few herbaceous species, the shrubs appeared to be in drought stress. The *Arctostaphylos*, in particular, appeared to be affected. Many of the leaves on the individual shrubs had turned brown and others were dropping off and littering the ground. Even manzanitas are drought deciduous to some degree. The road climbed up to a saddle with a very faint two track trail up to the top of the gabbro hill. Near the top of that hill, *Polygala cornuta* var. *fishiae* (Fish's milkwort) grew in the spaces between the rocks and shrubs.

Flowers of *Polygala cornuta* var. *fishiae* (Fish's milkwort). Photo from www.smmflowers.org



One shrub that was expected in this area on the north slopes was *Clinopodium chandleri* (San Miguel Savory) and I had fully expected to find *Tetracoccus dioicus* (Parry's tetracoccus) on the south slopes. The tops of McGinty Mountain where both of these plants grow and Sycuan Peak where the *Tetracoccus* grows were visible from this mountain, but the plants were not found.



Tetracoccus dioicus (Parry's tetracoccus). Photo from CalPhotos, © 1996 Christopher L. Christie.

From the top of the gabbro hill, the view was spectacular. The rocky Lyons Peak protrudes to the southwest, the dark ridge of Otay Mountain crosses the skyline to the south, Cuyamaca Peak's dark shoulders with a central peak was visible to the north and the dark high ridge of Mount Laguna was visible to the east along the skyline. The urban areas of El Cajon and urban south bay were visible to the southwest. In the distance, El

Cajon Mountain was visible between the rocky nearby Lawson Peak and Gaskill Peak.

One of the other shrubs that was a subject of the search was *Baccharis vanessa* (Encinitas baccharis). It has been found on Mount Woodson on the area of granodiorite and on Otay Mountain. It made perfect sense that it might exist on the top of Lawson Peak, even in the boulder portion. So, the search continued onto Lawson Peak itself. The road passed onto the side of a rock slab that is several acres in size. The rocky peak and boulder covered ridges seemed like the bleached bones of the earth protruding through the earthen flesh. The basic framework of the earth was exposed at the surface.

The trail up to the peak was up a narrow chute of rock requiring scrambling over boulders and rocks, pulling up with your arms and climbing up on the rocks, gripping with ones fingers and climbing around large granite tan colored slabs and rough textured rock. Margie was familiar with it since she had climbed it a number of years ago. In some places it was necessary to hug the rock with one's face nearly pressed against it and in others it was only necessary to take big steps up over boulder edges. Manzanita branches and scrub oak branches provided hand holds in areas where it was necessary to use them for balance. It was on a trail that obviously had been used by a number of people before but not well traveled. The climb up was surprisingly quick since it seemed nearly vertical over the rocky slope. The scrub oaks (*Quercus* spp.) on the mountain and particularly in the rocky boulder area were highly variable. Some of the oaks had leaves that were nearly round. Some had narrow leaves with serrated edges, and some had holly shaped leaves. It would be difficult to determine which species name would be applied to these oaks.

The top of the peak consists of a few house sized boulders stacked together. Access to the top is apparently through a narrow cave like structure through a gap beneath the rocks. However, due to time constraints, I was satisfied to stand the dozen feet below on the bouldery ridge and look for rare plants. By this time, the clouds had come in anticipation of a rainstorm that arrived a day later.

The walk back down the mountain involved re-examining the slopes and understory as well as side trips to find the sensitive plants. The *Clinopodium*, *Baccharis* and *Tetracoccus* were still not found. Maybe it gets too cold for these plants that are found mostly on peaks that are a bit lower and closer to the coast, or maybe it is the result of random events involving drought, fire and soils.

With the ever present scent of *Salvia clevelandii*, the

understory of *Salvia sonomensis*, the presence of *Packera ganderi* in the understory and openings between the shrubs, and finally the rocky scramble up Lawson Peak, this was a rare plant exploration day to remember.

~ **Thomas Oberbauer**, Board Member

Winner, A. L. and M. G. Simpson. 2007. A New Subspecies of *Pentagramma triangularis* (Pteridaceae) *Madrono*, Vol. 54, No. 4, pp. 345–353

Barkley, T. M. and R. M. Beauchamp. 1974. A new *Senecio* (Compositae) from California. *Brittonia* 26:106-108.

RELATED ACTIVITIES

Point Loma Native Plant Garden

June 6 & 21, 9 – noon. Work Party. Usually the first Saturday and third Sunday of each month. Contact: Richard@sandiegoriver.org for more info.

24th Annual Cal-IPC Symposium

San Diego Convention Center

October 28-31, 2015

plus a special conference on:

Habitat Conservation Planning

October 29, 2015

<http://www.cal-ipc.org/symposia/index.php>



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CNPS-SD Activities Calendar June 2015

- 6/2: Conservation Committee Mtg, p.3
- 6/3: **Board Meeting**, p.2
- 6/7: Tecolote Cyn field trip, p. 2
- 6/9 Propagation Committee Work Party, p.6
- 6/10 Gardening Committee Mtg, p. 6
- 6/13: Old Town Native Landscape Work Party, p.6
- 6/16: **Chapter Meeting**, p. 1
- 6/21: Field Trip to Rancho Cuyamaca S.P., p. 3

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

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Dedicated to the preservation of the California native flora

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