March 2020

CALIFORNIA NATIVE PLANT SOCIETY

San Diego Chapter Newsletter

CHAPTER MEETING

MARCH 17, 2020

Casa del Prado Room 101, Balboa Park

6:30 pm – Premeeting.
7:00 pm – Browsing & Socializing
7:30 pm – Brief Business Meeting
7:45 pm – Main Presentation

Pre-meeting

Dudleya Conservation: *In-vitro* Propagation to Combat Plant Poaching and Extinction

by Kevin Alison

The genus *Dudleya* is a charismatic group of native succulents with many rare species across California and Baja. Recent popularity has attracted poachers who uproot these plants by the tens of thousands in attempt to supply interests overseas for hefty profits. This project aims to utilize plant tissue culture (Micropropagation) to ethically produce large quantities of select *Dudleya* species to deflate the price incentives for poachers while providing agencies with an additional tool for conservation.

Kevin is a Masters of Conservation and Restoration Science (MCRS) candidate at U.C. Irvine and a native plant production specialist (R&D) at Tree of Life Nursery.

Main Presentation

Mulch Madness (in March)

by Mike Evans, Founder and President of Tree of Life Nursery

To Mulch or Not to Mulch. Is that the question?

The horticultural practice of mulching or top-dressing consists of periodically applying a layer of foreign material (organic or mineral) to the soil surface, under and around your landscape plants. What are the pros and cons of this practice, especially in natural design using native plants? Is all mulch created equal? How do wild plants in native habitats do without someone showing up to "mulch them?" Come hear a presentation and join in a lively discussion. Hopefully, we'll find answers to all these questions.

Chapter meetings are free and open to the public.

BOARD MEETING

Wednesday, March 4, 6:30 – 9:00ish 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@cnpssd.org .

GARDENING WITH NATIVES

Gardening Committee Meeting

March 11. The Native Gardening Committee meets the 2nd Wednesday of each month at various locations. Contact gardening@cnpssd.org for location and time.

California Native Garden Tour

The Artful California Native Garden
Saturday, April 4, 2020
9:00 am to 4:00 pm
For tickets and further information:

http://cnpssd.org/events

The CNPS San Diego Chapter presents its eighth annual Garden Tour, The Artful California Native Garden: A Native Garden and Art Tour in East County. Spend the day exploring and learning from these gardens that illustrate habitat plants, dry streambed bioswales, adjacent natural areas, pool-to-pond conversions, water catchment devices, slope gardens, charming water features, bridges, sculptures and more. Enjoy meeting artists in many of the gardens who will be creating and selling their California native garden themed artwork and crafts. Be inspired this Spring!

LOCATION

Mount Helix/La Mesa, Allied Gardens, Lakeside, Blossom Valley and other East County areas.

GARDENS

- Entry to 12 private residential gardens staffed with interpretive docents, owners, and designers.
- 4 additional FYI (For Your Inspiration) viewing gardens on the route.
- Instructional presentations and plantings.
- At The Water Conservation Garden check-in hub: Planting demos and guided tours.

TICKETS

- Tickets sales $35 beginning March 1 and $40 at door.
- All participants buying online before March 28 will have a tour booklet mailed to their address within the week preceding the Tour and can begin the tour at any garden location during Tour weekend.

For questions, please contact **Judie Lincer** or **Christine Hoey** at gardentour@cnpssd.org or at 619-277-1490.

FIELD TRIPS

For details visit: www.cnpssd.org/events

MARCH

Sunday, March 8, 9 am – 2 pm: Coyote Canyon (Borrego Springs).

SEVERE WEATHER CANCELS: Temps over 95F/35C or severe storm warnings.

DESCRIPTION: Easy to moderate max 5 miles hike for everyone. FREE. This is a well-travelled horse trail that extends along the wash where running water hydrates the valley through the driest years. Reports indicate the bloom will be 'normal' this year and likely peak in early March. Bring your own gear, lunch, snacks, and water. We'll stop for lunch along the trail. iNaturalist app is highly recommended as are field guides, hand lenses, and cameras. Rattlesnakes and unstable conditions are probable.

DIRECTIONS: GOOGLE MAPS WILL GET YOU LOST. From the Christmas Circle roundabout In Borrego Springs, go NORTH on Borrego Springs Rd. Go around the bend onto Hendersen Canyon Rd. Turn left onto Horse Camp Rd and drive through orchards to parking. Day parking is OK, but do not camp here unless you have a horse. https://nextcampsite.com/vern-whitaker-horse-camp-anza-borrego-sp/

CARPOOL: Carpool will be available especially anyone using public transit. Arrive 6:45 - 7:00 am at the Fashion Valley Transit Center Parking Lot (west side parking area of the Fashion Valley Mall near Fashion Valley Rd). Look for a black Toyota Tundra OR a Dark Gray Rav4. Spaces may fill up, so please be prepared to drive. Expect to return around 4 to 4:30 pm. Parking is free for 24 hrs and has roving but risks are the same as parking anywhere on the street. Message the group for possible alternatives.

Sunday, March 15, 9 am – 1 pm: Vail Lake (Temecula)

Rare Plant Treasure Hunt (RPTH) with Orange County Chapter to search for *Berberis nevinii* and *Ceanothus ophiochilus*.

SEVERE WEATHER CANCELS EVENT: Temps over 95F (35C) or severe storm warnings.

DESCRIPTION: Moderate to hard 4-5 miles (<8 km) hike for all botanical levels; please be acquainted with keying methods and/or macro photography. Professional biologists and land managers always welcome! We will explore the botanically rich area surrounding Vail Lake in Riverside County. Where coastal and desert ecosystems converge, the Vail Lake area supports a highly diverse plant community with coastal, desert and Diegan elements. In addition to many annual wildflowers, some other plants to be expected include red shanks (*Adenostoma sparsifolium*), Mojave yucca *(Yucca schidigera*), California cholla (*Cylindropuntia californica*) and beavertail cactus (*Opuntia basilaris*) as well as various chaparral and shrubland species. We will also visit the rare Southern California endemic Nevin's barberry (*Berberis nevinii*). The hike will focus mainly on the west-northwest area of Vail Lake where we highlight the presence of uncommon or noteworthy species. Bring sun gear, lunch, snacks, and plenty of water. The trails at Vail Lake do not offer shade, so plan accordingly. We may break into separate

groups based on the type of rare plant treasure hunt(s) we decide on in the field. iNaturalist app is highly recommended as are any guides, lenses, and cameras. Always prepare for the weather beforehand. Rattlesnakes and rocky hiking conditions are probable.

ACCESS: CNPS or SCB members and land management / conservation oriented non-profit staff only, please. $5/person hiking entry. Due to the number of people expected to register for this trip, attendance size is limited so please RSVP early to save your space. If you find later that you cannot make it, please remove yourself from the list to allow another person to take the spot.

DIRECTIONS: From I-15, head to Temecula, exiting Hwy 79 / Temecula Parkway and turning East. Follow straight through Temecula towards Aguanga. Vail Lake is demarcated by a sign at Vail Oak Rd. Turn here and pay at the kiosk. Park at the dirt lot behind.

CARPOOL: Carpool will be available for anyone who might find it convenient, especially anyone using public transit. Arrive between 7:15 and 7:30 AM at the Fashion Valley Transit Center Parking Lot (West side parking area of the Fashion Valley Mall near Fashion Valley Rd). Look for a black Toyota Tundra OR Dark Gray Rav4. Spaces may fill up, so please be prepared to drive. Carpool participants should expect to return around 3 to 3:30 pm. Parking is free for 24 hrs and has roving security at Fashion Valley Transit Center, however risks are the same as parking anywhere on the street. Message the group for possible alternatives.

Sunday, March 22, 9:00 am to 1:00 pm: Mescal Bajada and the Kumeyaay Winter Village (Anza-Borrego Desert State Park).

EXTREME TEMPS above 95F [35C] or forecast for heavy rain will cancel the trip.

ACCESS: Open to all, no charge. Road doesn't require 4x4.

AMENITIES: Dry restroom available at the parking location.

DESCRIPTION: EASY to MODERATE up to 3 miles (4.8 km) for all botanical levels. The Mescal Bajada is the largest north facing alluvial fan of Whale Peak, fed by many canyons all filled with botanical treasures. Here the Kumeyaay would traverse the incredibly rugged terrain of the Lagunas to harvest pinyon nuts and other desert delicacies, while waiting out the snow. We'll be lightly exploring the Winter Village and the stone morteros, then deciding on a direction along Mine Canyon or Bighorn Canyon. The trip will be more of a wandering path, as we look for blooming cacti, annuals, herbs, and shrubs like chuparosa (*Justicia californica*), indigo bush (*Psorothamnus schotii*), desert senna (*Senna armata*), Calilco cactus (*Echinocereus engelmanni*), Bigelow's monkeyflower (*Diplacus bigloveii*), and a galaxy of Cryptanthas, to just name a few. This area isn't very well documented and fairly expansive so we'll compile a plant list and take iNat records along the way. Rare species get very interesting the higher in elevation we'll go, but we're not aiming for any peaks, and the only rare species recorded (on CalFlora) in the immediate area south of SR-78 are *Ayenia compacta* 2B.3 and *Lyrocarpa coulteri* 4.3. Perhaps we'll be able to add to that list. This area can be inhospitable if you come unprepared. Be sure to wear sturdy boots or shoes you don't mind getting cholla spines in. The teddy bear cholla (*Cylindropuntia bigelovii*) doesn't 'jump' so much as crosses paths with the careless explorer. The sun and heat may be the most dangerous thing, so bring plenty of water and sun gear. This area can experience high winds as well. Finally, another thing we should be respectful of are the rattlesnakes that are found around the rocks.

DIRECTIONS: From Julian, take SR-78 east. Pass Scissors Crossing, heading towards Salton Sea. At 2.75 miles east of Yaqui Pass Rd, a small sign reads Mine Wash. Look hard and turn here. Park at restroom 1/4 mile to the south. We'll carpool further up to hike.

CARPOOL: Justin will offer carpool out of Fashion Valley. Look for a black Toyota Tundra or Dark Grey RAV4, at Fashion Valley Mall Transit Center parking area nearest Fashion Valley Rd (west end of the mall) from 7:00 to 7:15 am. Parking at the Transit Center parking lot is free for 24 hrs (park in the diagonal spaces only) and is patrolled by security. That being said, the same risks apply there as to regular street parking. Donations for gas are welcome, but not required. ($10 is suggested to cover gas). Please Message this board to coordinate a separate carpool. I expect to return to San Diego around 3:00 pm.

Many field trips are tentatively scheduled for this spring.
For details visit:
www.cnpssd.org/events

APRIL

Saturday & Sunday, April 11 & 12: Indian Canyon (Palm Springs) & Joshua Tree NP [camping]

Saturday, April 18: Border Field State Park BioBlitz

Friday, April 24: Tecolote Canyon (San Diego) City Nature Challenge (CNC)*

Saturday, April 25: Crest Canyon (Del Mar) CNC*

Sunday, April 26: Clevenger Canyon Post Burn Area CNC* (San Pasqual)

MAY

Saturday, May 2: Cuyamaca Lake & Filaree Flay RPTH

Friday – Sunday, May 8, 9, & 10: Valle Tranquilo, San Quintín, Punta Colonet (Baja) [camping]

Sunday, May 17: Jacumba OR Kitchen Creek

Saturday, May 23: San Felipe Valley or Eagle Rock (Warner Springs)

Sunday, May 24: Volcan Mtn (likely RPTH)

Saturday & Sunday, May 30 & 31: Pine Mtn Wilderness (Warner Springs) [camping]

JUNE

Saturday, June 6: Loveland Reservoir (Alpine) or Mt Palomar (weather dependent)

Sunday, June 14: Loveland Reservoir (Alpine) or Mt Palomar (weather dependent)

Saturday & Sunday, June 20 & 21: San Jacinto Mtn / Garner Valley [camping]

~ **Justin Daniel**, Field Trip Chair

CONSERVATION

Conservation Committee

March 3. We meet the first Tuesday of every month, from 5:30 to 7:30 pm. Email conservation@cnpssd.org for details. If you are interested in this kind of work, you are very, very welcome, as we always need more volunteers. **We are happy to train you,** too, and we have developed training materials. If you know of a project that needs our involvement, we also welcome you. Our goal is to protect California's native plants, and where they are threatened, whether it is by development or climate change, we speak up and advocate for them.

Conservation Column

YES on A, NO on B in the March 3 Election

If you haven't voted yet for YES on A, NO on B, please do so on March 3. Thank you! Thank you also to all the people who spread the word on social media, who contributed to Stop All Sprawl, got yard signs, and who rocked out for the environment in February. You made a difference.

Vegetation Treatment Plan update

The funding requests are unending, but PLEASE contribute to the Endangered Habitats League (https://ehleague.org/donate.html) or Chaparral Institute (https://charity.gofundme.com/o/en/campaign/save-10-million-acres-of-california-habitat) to fund their lawsuit against CalFire's Vegetation Treatment Program (VTP). I'll discuss in detail below why this is such a terrible program and why CNPS is not in the litigation. The critical point is that every environmental group is stretched on funding litigation. If we want them to win battles for you, it's time to donate. It's safe to say that they and other groups litigating on environmental issues are getting substantially more of my money than CNPS is.

Now let me explain why this happened. This is from my viewpoint and others will disagree. I've got an odd view on relationships, due to my doctoral work on symbioses. When two organisms get together in a close working relationship—mycorrhizae, for example, or mutualistic bacteria—one of the essential features for both partners to cooperate with each other is that each side can effectively punish the other side for attempting to take advantage of them. You may have seen the mathematical version of this, known as "tit for tat." It may seem paradoxical at first, but extremely successful cooperative relationships in a huge variety of systems are built on enforceable penalties for bad behavior.

Humans, to oversimplify, tend to default to primate dominance structures, where we appease the silverbacks above us in return (hopefully!) for fair treatment. Note there's no reciprocal penalties here. This often plays out in political access. A politician or bureaucrat might give someone, say an officer in a non-profit, a seat at the table, where they're listened to and given tasks to perform. In return for continued access, they often prefer to appease rather than oppose.

The problems start when the organization's interests conflict with the officer's access. Organizations probably should behave more like symbionts with agencies, cooperating when possible, but defending their interests when those interests are violated. Officers have to figure out whether their interests, and the interests of the organization, are better served by, say, litigating to stop a program (and losing access temporarily) or having the organization's interests ignored, but still having that desirable seat at the table.

You've probably figured out by now why CNPS is not litigating on the VTP, but here's my side of the story. Since we all knew the VTP was going to be certified, I tried to get state CNPS to move forward on preparing for litigation. I was told by Greg Suba, then the state conservation director, that because some northern California chapters "tepidly supported the VTP," he was not going to allow us to sue. CNPS does have a memorandum of understanding with CalFire to perform controlled burns in the Northern Sierras, in conifer forests that need more ground fires. Shortly thereafter, Greg left CNPS to take a job with Sierra Forest Legacy, which is also a signatory to that MOU. State CNPS has stuck with his strategy since. And I have no idea which northern California chapters of CNPS tepidly support the VTP.

Now let me explain why the VTP is such a problem. The program itself has some capacity to do controlled burns and such, but primarily it's a funding program for other groups. Land managers are supposed to submit their projects to the VTP, and if the projects are consistent with the VTP, they get funded. That's actually not that problematic, provided the projects avoid causing damage.

The problem is that the VTP was done with a Programmatic Environmental Impact Report (PEIR). If you've been reading this column for a while, you know that an EIR is an analysis of the impacts of a single project. A PEIR is what you write when you've got a segmented project (like Pacific Highlands Ranch in the Carmel Valley) that's going to be developed in segments over many years. Some of the impacts are the same for every segment, some are going to be unique to each segment. Since it's burdensome to repeat the same analysis for each segment, you write a PEIR for the project where you analyze those impacts that are universal and mitigate them. Once this PEIR is in place, each segment can "tier off" the PEIR by referring to the analysis done in the PEIR on those universal impacts. Done properly, PEIRs save a lot of effort.

The VTP PEIR wasn't done properly. It covers one third of the state of California, but it's around 700 pages long, which is a short way of saying there is no analysis of universal impacts. To be a proper PEIR for such a huge area, it would need to be hundreds of thousands of pages long. Moreover, it's not bounded in time or space, and they don't know where they will be working. Why? The VTP is primarily a funding program, and they have no idea who will apply for funds. A PEIR analysis is totally the wrong thing for this.

Unfortunately, CalFire doesn't have much in the way of CEQA expertise on staff (as demonstrated, among other things, by the VTP PEIR). If the VTP goes into effect, they're going to get

hundreds of applications for projects every year, and a few staffers will have to read them all. Supposedly, qualified people will go out on site to review each project. Unfortunately, CalFire has a long history of rubber stamping other CEQA-equivalent documents, like Timber Harvest Plans and funding for fire-safe projects, so I don't expect them to send anyone out or do adequate review. More likely, they'll rubber stamp most or all applications, trusting that the applicant did the proper review. This is implied in the VTP PEIR.

As a result, what is likely to happen is that a landowner, State Parks for example, will apply for VTP money. CNPS members will complain that the project will damage rare native plants and plant habitat. The land owner will say that CalFire has found that their project was covered by the analysis in the VTP PEIR, therefore the damage has already been mitigated. If we disagree, we need to sue to stop them. Litigation costs $50-100,000 per lawsuit.

There are supposed to be hundreds of VTP projects every year, and some fraction are going to be problematic. We could have sued now and stop this from starting, or we can be overwhelmed with bad land management projects and have little or no way of preventing them. Unfortunately, we decided not to sue.

I do see an alternative that might be a win-win. The problem is the PEIR, not the VTP exactly. As "some northern California CNPS chapters" know, there are certainly situations where CNPS and CalFire can work together. There are likely a lot of projects that, without the PEIR, would require a minimal Negative Declaration (ND) under CEQA, not a full EIR, things like crews doing weed control or those Sierran controlled burns. The problem is the carte blanche given by the PEIR that allows bad projects to get rubberstamped statewide.

My proposal would be for CalFire to scrap the PEIR and turn the VTP strictly into a funding program without a PEIR. Program applicants would be responsible for CEQA review independently under their own lead agencies. In return, CNPS would use all our high quality rare plant, vegetation, and Important Plant Area data to help CalFire target VTP projects where they'll do some good and minimize the damage. This is something CalFire apparently has struggled to do, and they wanted to ignore the problem instead of solve it. However, if a proposed VTP project would cause impacts, it would still require a full CEQA workup, done by the project applicant, not the VTP program. That would take the burden off CalFire, speeding their process.

The mandatory settlement discussion in the VTP lawsuit would be a reasonable venue to propose this alternative. Unfortunately, CNPS is not at the table with the other litigants, so we can't offer our services to reach a mutually agreeable solution. That's the ultimate irony, that we might be able to help solve this mess, give the Sierrans their fires, and keep the VTP from approving hundreds of bad projects, but due to the decisions of people in Sacramento, we're not there to help. Instead, we need to work through the Endangered Habitats League (EHL) and the Chaparral Institute.

So please donate to help them fight the VTP. Thank you!

Going forward, we also need to think about how much CNPS interests are being damaged by our reluctance both to sue and to pay for lawsuits. There's a way to strategically litigate that doesn't involve last minute fundraising, if we have the will to set it up. If we aren't willing to pay to protect native plants using sound science, who will?

~ **Frank Landis**, Conservation Chair

RARE PLANTS

WAIT, WHAT, WHERE DID *Dichelostemma* GO?

A few years ago, I wrote a brief article for the newsletter warning that *Dichelostemma capitatum*, a name applied to one of San Diego County's most widely recognized geophytes, blue dicks, was possibly on its way out. If you have seen the newest update to the Jepson e-flora (https://ucjeps.berkely.edu/eflora/) or ventured to use the Jepson Interchange (https://ucjeps.berkely.edu/interchange), you will see that *Dichelostemma capitatum* is no longer listed by these sources as the correct name for this plant. It's official, the name is now *Dipterostemon capitatus*.

While the new name will take some getting used to (Justin Daniel and I joked yesterday that it does not roll off the tongue like *Dichelostemma* did), you can be assured there appears good reasons to adopt the new name. If you want to read the full story, you can find it in Robert Preston's paper, New Nomenclatural Combinations for blue dicks (*Dipterostemon capitatus*; Asparagaceae: Brodiaeoideae), Phytoneuron 2017-15: 1-11. (http://www.phytoneuron.net/2017Phytoneuron/15PhytoN-Dipterostemon.pdf). It gets a little crazy with the nomenclatural history of the plant. The paper certainly leaves a reader with a good feeling for just how confused the application of various names for this plant have been. Probably only the craziest botany geeks who eat up nomenclatural drama will truly appreciate it.

Without getting into real detail, as most of us probably live confused enough lives trying just to keep the kid and pet names straight, I won't repeat that history here. Suffice it to say, a LOT of names have been applied to this plant since it was first given a name in 1808 (*Hookeria pulchellum*, if you must know). It is a messy history. It wasn't always clear how many species were involved (apparently for the longest time, authors recognized two species where there was only one; splitters, you know how they are). And finally, the botanist that got most of the details right when he published the name *Dipterostemon capitatus* in 1912, had his concept largely forgotten. At least until Preston resurrected it bringing it to the attention of the California botanical community.

~ **Fred Roberts**, Rare Plant Botanist

BOTANIZING

El Cajon Mountain

As one drives east on Interstate 8, between El Cajon and Alpine, a large mountain is to the north. It is notable for the high ridge point that has nearly shear cliffs on two pointed sides. The light-colored granodiorite [which one] cliffs are visible from far away. If one drives up the San Diego River in Lakeside traveling to El Monte Park, the mass of the mountain becomes even more visible, dropping directly into the Valley. The true name of this mountain is El Cajon Mountain because of its proximity to El Cajon and El Cajon Valley. El Cajon is translated to be "the box". It seems a bit amusing that a mountain would be named box mountain. However, everyone who sees the mountains and those who live near it refer to it as El Capitan. El Capitan or "the captain" is the name of one of the famous landmarks in Yosemite, and its resemblance to that landmark is the reason that this mountain is usually referred to as El Capitan. In fact, El Capitan High School and El Capitan Dam both reflect that local name for the fountains.

The mountain is not really large, being 3,651 feet in elevation, but it is located in the midst of granitic rock domes – massive plutons of rock that are the product of subduction and fractionization of molten material. During the Cretaceous, 145 to 66 million years ago, the sea floor was subducted beneath the north American plate. As the sea floor plate was forced downward beneath the continental crustal mass, it was heated and became molten. The heavier basaltic material stayed low in the molten column but lighter materials, such as quartz and feldspar, bowed upward due to its lighter mass being distilled out of the mix of molten rock, far below the earth surface. The lighter molten rock formed large balloon shaped blobs that intruded upward heating their surroundings but also cooling very slowly, maybe taking millions of years. The slow cooling process allowed for crystals and chunks of orthoclase and plagioclase feldspar within the quartz to grow. Impurities of iron and other minerals also grow into crystals, producing their light gray white or slightly tan rock with flecks of black mica and black tourmaline or shorl.

These large solid balloon-shaped blobs of slowly cooled rock (plutons) stayed beneath the surface until plate tectonic forces raised the crust upward. As the erosive forces of millions of years of rain and weathering occurred, the overlaying surfaces eroded away, the large plutons of hard granitic material were exposed to the surface and even thrust higher upward. Famous plutons include Half Dome and El Capitan in Yosemite.

El Capitan Mountain, or El Cajon Mountain, in San Diego County are also plutons of granitic rock. However, it is only one of the plutons in the area with at least one or two more large granitic domes to the west.

I had an assignment to walk to a population of *Brodiaea orcuttii* (Orcutt's brodiaea) on the mesa located on the part of El Capitan Mountain that forms a nose with 1,500-foot high cliffs on both sides. The plan was to relocate the Brodiaeas and

estimate the size of the entire population on the mesa of the mountain. Access to the mesa involves walking from Wildcat Canyon Road north of Lakeside on a 5-mile trail to a junction in saddle of the mountain, and walking another mile down to the mesa, along a well eroded trail on the flank of the mountain itself.

Years ago, I had walked this trail on Mother's Day leaving very early in the morning and returning in time for Mother's Day celebration. I remember going and returning in about 5 and a half or six hours, but I did not walk to the peak itself since I was on a time crunch that day. I remember that I was concerned about mountain lions in the early morning while hiking through a *Quercus agrifolia* (coast live oak) filled canyon during the early dawn light. I also remember *Ceanothus cyaneus* (Lakeside lilac) in flower. That was back before the 2003 fires burned over the mountain.

This time, I was traveling with Rustin (a person from my office) and several people from the San Diego River Park Foundation, including Chase Stafford. I was concerned that for May it might be quite warm, so we needed to be on the trail by 6 am. Sure enough, when the day approached, the temperature projections started increasing rapidly. In fact, the day before in Alpine, the temperature was 101°F and Escondido was 103°F. That did not bode well for our hiking day. Some people suggested that we postpone the field day but that was not an option. The afternoon the day before, the air seemed to shift, so instead of the Tuesday hiking day being projected as the hottest day in the series, I figured it would not be as hot. Besides, I had hiked up mountains in heat greater than 90°F multiple times. I just needed to be sure I had enough water and Gatorade.

Trail guides and discussions describe this as one of the most rugged hikes in San Diego County. While the peak is only 2,800 feet higher than the trailhead, descriptions of the hike mention a 4,000-foot elevation climb because not only does the trail up the mountain involve steep climbs up old jeep trails that have a thin layer of decomposed granite and sand grains that cause the loss of traction, but it has equally steep downhill climbs on the way up to the mountain. It has been described as uphill both ways. My plan was to go down and perform the plot data collection and population mapping but then to walk up to the top of the peak itself. I also planned to do some video taping, which required me to carry my heavy camera and tripod as well as the recording equipment. That was all on top of the gallon of water and roughly 1 1/2 quart of Gatorade and 1 1/2 half peanut butter sandwiches as well as 2 large tangerines. I decided not to wear snake guards because of the heat and the fact that I was going to mostly stay on trails, in addition to the fact that snakes don't care for high heat but need to cool in the shade if they get overheated. I did bring sticker gators, however, because I know it would involve walking through grassy and weedy areas.

The three volunteers for the river park went to map the *Ceanothus cyaneus* (left) while Rustin was going to use an iPad to take notes of the plant species I identified in the plot. Chase Stafford from the river park also came along since he had the most experience hiking up the mountain and was observing the data collection.

We set off at about 6 am. At first the trail goes up a very steep concrete driveway, but shortly after, it passes a restroom and begins to be a series of steep switchbacks. However, as we found later, the switchbacks were possibly the least steep climb. Right after the switchbacks, the trail dropped steeply down onto one of the old jeep trails.

Though it was warm, the vegetation was in great shape. *Ceanothus cyaneus*, in full flower, was encountered early and was a major part of the vegetation from there on. The deep blue inflorescences dotted the hillsides. *Adenostoma fasciculata* (chamise), was also in beautiful flower creating a white lacy appearance on the hillsides. The rains in May apparently prolonged the flowering period for everything and the shrubs in general appeared very healthy. With the sun's low angle, golden light shone across the slopes, creating a tinge of color on top of the flowering chaparral and boulder-covered landscape.

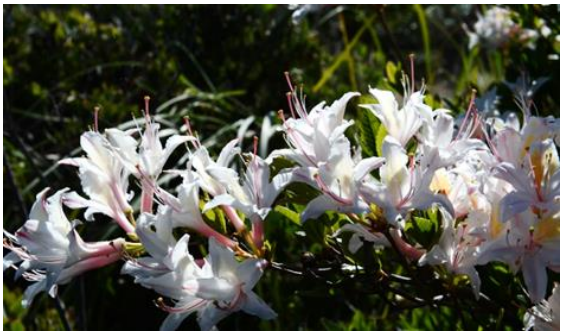
Though this was all regrowth following the 2003 fire, there appeared to be little dead growth on any of the shrubs. The only place where dead vegetation occurred was in the oak lined canyon drainage that I mentioned before. We wove between two of the granitic dome peaks. The farthest one is called Silverdome on the USGS maps. Rounded boulders of all sizes poked up through the chaparral but the granitic slabs of the domes rose more as part of the slope structure than visual landscape features. This area is composed of hornblende, biotite, and leucogranite rock. The chaparral in flower, the white chamise and blue *Ceanothus cyaneus* that flowers long after the other species finish, and the overall green vigor created a truly beautiful landscape. I should mention that *Ceanothus cyaneus* is endemic to central San Diego County and is only found in the general vicinity of Crest and Lakeside with the area we were in being the center of the range.

The trail repeatedly climbed and dropped steeply. I attempted to point out the interesting plants we encountered on the trail. *Calochortus splendens* (Lilac mariposa) with pale pink-lavender flowers was one interesting species and we came across a couple of bright yellow *Calochortus weedii* (Weed's mariposa lily; right), as well.

Coastal sage scrub habitat was limited except in one of the low areas at the bottom of a downhill stretch, probably the second one. It seemed to be slow going which is what I expected with the terrain and the steepness of the trail. I was keeping general track of where we were with the Fulcrum cell phone application. It has a Google Earth type aerial photograph background and a GPS point showing where I was. As the first hour and a half passed, I mentioned for people to watch out for *Vaccinium ovatum*

(California huckleberry; left) on the side of the trail. I had a vague memory of seeing one or a few on the south side of the trail. I had checked the museum website for the location where people had found it, so I knew along which stretch of the trail to look, plus I remembered generally what I thought was its habitat from my Mother's Day hike many years ago.

Walking down a steep stretch that turned to a more gradual downhill, I saw one growing next to the trail. It was an individual plant with less than vigorous growth that had some dry appearance. It was near mile marker 4. The trail went on farther into an area that seemed to have greater moisture. A small rivulet crossed the trail. I looked around and saw a moist habitat that was unfortunately invaded by *Cortaderia selloana* (pampas grass). On the southside bank of the small creek grew a nice series of good-sized Huckleberry shrubs. I stopped and was looking around when I noticed a shrub that had some partially past 3-inch long flowers that looked like semi wilted trumpets. I looked again and realized that they were azaleas, wild azaleas! I know I blurted it out and then saw some more in good flower with intact fresh petals. Looking around some more, I found other medium sized shrubs with the white azalea flowers. I suppose I remembered somewhere in my mind that they grew here, but I was certainly surprised to see them. I don't know if the people in our little group even understood what I was talking about.



Rhododendron occidentale (Western azalea).

This little spot was very interesting. First, the presence of California huckleberry in Southern California is an anomaly. The genus contains 450 species from Asia to Europe & Malaysia of the northern hemisphere. Plants have been found naturally occurring from western Canada to as far south as Santa Barbara County, where I saw them on Vandenberg Air Force Base where I worked mapping resources in the 1970s. There they grew in moist canyons and places where the coastal fog settled every day, especially around the upper reaches of Honda Creek and Tranquillon Mountain.

Then they skip down to San Diego County where they occur in four general areas. One is on Bottle Peak northeast of Escondido. There, what seems like a single individual grows in a rock pile where it can resprout after fires over and over. It may be thousands of years old if there was a way to age its root base. It has also apparently been collected on Rodriguez Mountain east of Valley Center, a couple of spots north of Iron Mountain located east of Poway in an area that is more moist than its surroundings, and then on the north slope of El Cajon Mountain in a few spots. It does not occur in San Luis Obispo, Orange, Los Angeles, Ventura, Riverside or San Bernardino Counties. Something in the climate and soils in San Diego County allows for this moist loving redwood flora plant to persist here when its regular distribution is central and northern California.

The Western azalea is another anomaly in Southern California. The genus *Rhododendron* contains approximately 1,000 species that are spread throughout the world. They range from tiny mats 2-inches high to giant trees. Their distribution is somewhat similar to the genus of *Vaccinium*, but a bit more expansive. Ninety percent of them are in southeast Asia, especially the Himalayas, Tibet, China and south to the Philippines, but also in Europe, Greenland and Queensland (Cox and Cox 1997). Members of this genus existed in North America 50 million years ago and represent an old lineage of flowering plants (Roane and Henry 1981). Twenty-seven species occur in North America with the greatest concentration in the southeast. *Rhododendron occidentale* occurs from Oregon to San Diego County. In San Diego County, it occurs in a number of locations in the mountains and it formerly grew in a shaded forest in the Cuyamacas at Azalea Spring where a grassy slope now exists over most of its habitat following the 2003 Cedar fire, and on this site on El Cajon Mountain's north side. From our mountains northward, it occurs in a few spots in the San Jacinto Mountains, notably Dark Canyon below Idyllwild. However, from there, it skips up to Kern and Monterey Counties and farther north. It doesn't exist in Orange, Los Angeles, Ventura, Santa Barbara, San Bernardino or San Luis Obispo Counties. A study by Hrusa (2012) indicates that the plants in San Diego County are derived from the plants in the Sierra Nevada instead of the Coast Range, and the ones we have here in the south part of the range have larger flowers with a less distinct color patch on the corolla. This group of plants on El Cajon Mountain is the southernmost population of their entire range. The really odd thing is that these plants are not located in a moist montane forest or redwood forest area, but in chaparral. I was disturbed about the presence of the Pampas grass in the midst of the population. I have spoken to Chase Stafford about the importance of removing the Pampas grass.

Both of these species, the California huckleberry and the Western azalea, had to have continuous distribution during periods of wetter climates. One would think that there would be suitable habitat in the counties between Riverside and Kern, especially in the San Bernardino Mountains for the Western azalea, but apparently not. The California huckleberry is another mystery since one would think there would be habitat in at least the Santa Monica Mountains.

I noticed a small yellow flowered plant growing in a moist stream rivulet edge. It turned out to be *Hypericum anagalloides* (Creeping St. John's wort), another of these disjunct plants from far away, though it too has been found in a few spots in San Diego County. It grows in a number of locations in San Diego County, a few in Riverside and San Bernardino Mountains, but then up to western Santa Barbara County to northern Kern County. In San Diego County, it has been found on the slopes near Iron Mountain, Otay Mountain, the Agua Tibia and Palomar Mountains, and the Santa Margarita Mountains. This is another species that indicates San Diego County has some factor that supports plant species that no longer exist in counties to the north.

On the other side of the trail were large scrub oaks. They had good sized, smooth edged leaves with dark green backs. They were a different looking scrub oak. On the slopes above the spring grew small trees that appeared to be these oaks. In my mind, I thought that they looked like *Quercus cedrosensis* (Cedros island oak). I thought for sure that these were scrub oaks and not trees. I could not find any acorns to assist in the identification; however, after showing photos to Jon Rebman at the Natural History Museum, he identified them as *Quercus chrysolepis* (Gold cup oak) which normally occurs above 3,500 feet in the mountains with much higher rainfall than that in chaparral areas like El Cajon Mountain. I saw that it had been collected there many years ago.

After a few moments here, we went on past an old military jeep landmark that sits with no wheels, back or engine. The trail climbed and climbed more. We passed *Trichostemma parishii* (Mountain blue curls) and plenty of *Quercus acutidens* (Scrub oak) and *Arctostaphylos glauca* (Bigberry manzanita).

Eventually we reached the saddle junction where one trail passes to the west up another peak, one passes to the east and up the true El Cajon Mountain, and one continues down toward the mesa located on the nose of the mountain.

The three volunteers were to proceed to photo plots for the *Ceanothus cyaneus*, while Rustin, Chase and I walked down to the mesa top to the *Brodiaea orcuttii* (left) population. The photo plots were not expected to take long so they were going to come down and meet us afterword. By now, the temperature was quite warm. The old trail/road down the mountain flank was very eroded. Deep gullies cut through it and our job was to keep from slipping down into them. In a few spots, someone had placed rocks to make passing through the ravines more convenient. The shrubs in their vigorous growth had closed in on much of the upper portion of the trail so it was not as obvious. We by this time had encountered 5 species of Ceanothus, beginning with *Ceanothus tomentosus* (Woolly leaf ceanothus), *C. leucodermis* (White back ceanothus), *C. cyaneus*, *C. oliganthus* (Hairy ceanothus), and *C. perplexans* (Cupped leaf ceanothus). The peak was above to our east.

We made it down to the mesa area and saw that the *Brodiaea orcuttii* was in full flower and very numerous. However, it was

growing in the midst of patches of *Castillea exserta* (Purple owl's clover), *Clarkia purpurea* (Purple clarkia; left), *Ozmadenia tenella* (False rosinweed), and large numbers of *Navarretia hamata* (Hooked navarretia). These *Navarretia hamata* have not only the skunk odor associated with the species but brilliant red-maroon flowers that were just beginning to open. Eventually, they will be prominent colors on the low areas. The mesa contained grassy meadows intermixed with sheet rock slabs where the depth of the soil seemed to limit the ability for the shrubs to grow. They were meadows with a rich diversity of flowers and a few non-native species.

By this time, the temperature was hot. I had been concerned that the iPad might shut off if its black cover was exposed to too much hot sun. I had experienced that problem in the past. Sure enough, it had to be set down in the shade of a small boulder to allow it to cool in order to restart.

It also took a while to find the actual plot location using GPS on the iPad. Rustin, Chase and I were led to a number of false locations before finding the actual center, a few hundred meters away from the main central meadow. We set up the plot and estimated the count for the quadrants. Ironically, it was an area that had a lower density of the *Brodiaea orcuttii* because we found only 89 individuals. The rest of the plot assessment involved documenting every other plant species present and providing an estimate of cover for it. There were dozens of different species.

Attempting to estimate the total boundary of the plants seemed to be a futile effort at that time. I attempted to mark some boundaries while the iPad was cooling down. I planned to use those points to delineate the boundary using high quality aerial photographs rather than walking all over the mesa, back and forth through the open grassy areas and their edges with the chaparral.

We ate lunch and I drank Gatorade, and, also, quite a bit of water. The heat was wearing because there was no shade. I had initially indicated that I intended to climb the peak. We trudged our way back to the saddle where the trail junction was located. For various reasons, I had not practiced walking up and down the 27 flights of stairs in the office building where I work in preparation for the hike. I normally do that before events like this, but I was going to climb up to the top of the peak no matter what. I was a bit concerned about the diminishing amount of water that I had left. Zack, one of the volunteers for the river park, decided to come with me.

The climb to the peak was over a trail consisting of an eroded path through medium sized boulders. There were many instances of high steps over boulders. I was moving slower by this time in the heat and having walked a long way already. The trail was between ½ to ¾ a mile to the top, and the climb was of 800+ feet in elevation. Finally, we reached the top. I ate my last half of a peanut butter sandwich and drank the second of my two Gatorade bottles.

The top of the mountain is amid a boulder garden. There are views down the valley toward Lakeside, views to the north toward Ramona, and views of the higher Cuyamaca Mountains to the east. It felt good physically to be sitting on one of the large rock slabs on the peak. While we were there, a layer of high-altitude cirrus clouds passed over, creating a feeling of intimacy with the mountain top. Unfortunately, the clouds did little to reduce the temperature.

We did not stay long. It was about 3 pm when we started down from the top, and at the peak heat of the day. I was beginning to feel a bit dehydrated, but also I needed nutrients, carbohydrates and salt. The funny thing is that sugar and salt are normally my enemies, but I needed more then.

After coming down the peak, we made it back to the spring where I was again fascinated by the Western azaleas and California huckleberries. This is the southernmost location for both of these species. These are remnants from the Pleistocene.

After leaving the spring, I remembered that a climb followed. That was basically the only one that I remembered apparently. It was one of moderate length, but I had to take time because I was running out of power and it was hot. I rationed my water; I figured I had two bottles, or approximately a liter, left. I was hungry, too.

We stopped halfway up the climb and rested for a few minutes. We climbed up that hill and then it leveled off a bit and resumed going downhill again. After a while, it climbed again. We had stopped at the bottom this time. The temperature was at least 95°F. Again, we climbed the hill part and passed over the crest with the following major portion heading down hill for a while. I thought about the fact that gentle downhill may be my favorite terrain to walk on, but it was steep downhill much of the time. By now, my shirt and upper part of my pants were stiff with deposits of salt from perspiration.

In my mind, I thought sure that we must have passed the last hill. However, after a while, we came to the bottom of another hill. I wanted to sit in the shade. I found a rock on the edge of a shaded cut slope. Deer flies were buzzing my face and neck. I know I was bitten on my neck and on the side of my head. However, I was so relaxed or, maybe more accurately, burned out and I actually dozed off for a few minutes. It was relaxing but we had to go on.

We stood up and began walking up the steep slope again and I stopped halfway, but then kept going. I was temporarily startled when I thought I saw what looked like a wolf coming toward me. Then I saw a woman who was walking that animal and a dog, and though it might not have been pure wolf, she indicated that it was in fact a wolf. Again, we passed over the crest and again went downhill, and walked on a gentle downhill. Yet again, we came to the base of a steep hill. I could not believe that there was yet another one! While walking up that morning, the excitement of the hike and the company of the people obscured my thinking about how many downhills we traversed on the way up that now translated to uphills on the way down. At this point, I was basically out of water. Once over the last pass, the walk was down some steep areas and then into the more gently

descending set of switchbacks that extended for a half a mile or more. On the top of the switchbacks we had a view of the valley to the northeast near Barona. The vegetation was so green and lush looking in the late afternoon light. By now it was approaching 6 pm. The cirrus clouds reappeared. The sun had been partially obscured by cirrus clouds off and on since we were on top of the mountain. In fact, at this point, there was an overcast, filtered light as a result of the clouds and a bit of haze settled in the valley. The grassy portions were still green, later than normal for this time in the season.

Finally, we stepped onto the very steep concrete driveway portion of the trail. The volunteer took a photo of me standing by the sign for the preserve. I examined the photo and saw how gray may pants looked from the white perspiration salt. I drank about ¾ or a full liter, and two full small bottles of Gatorade.

I was relieved to be back and getting on my way home. The hike was at least 16 miles long and, as I mentioned, at least a 4,000-foot climb, not counting the climb down on the mesa of the mountain. Considering the temperature being so high for a hike, it was a spectacular walk and at the peak of vegetation. While this hike did not take place under the most comfortable conditions, I realize what a special accomplishment it was and would not trade that experience for anything. The slopes of flowering *Ceanothus cyaneus*, the Western azaleas and the California huckleberries made it all worthwhile, not to mention being on the top of the peak among the boulders.

I would like to thank the San Diego Mitigation Management and Monitoring Program, Chase Stafford of the San Diego River Park Foundation, Rustin from AECOM, and Zack, the Riverpark volunteer who went up and down the peak with me.

~ **Tom Oberbauer**, Past President (Photos by the author)

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Spring Has Arrived in the Desert

In fact, in some places it is already past its prime. **Jürgen Schrenk** visited Fish Creek Wash in mid-February. Here are some of his photos.

Woody aster (*Xylorhiza orcuttii*)

Peirson's clavate fruited primrose (*Chylisma claviformis* ssp. *peirsonii*), somewhat past its prime.

Heliotrope phacelia (*Phacelia crenulata* var. *ambigua*)

Salton milk vetch (*Astragalus crotalariae*), usually not a common species here.

Desert Wildflower Updates

You can check this website - https://www.desertusa.com/wildflo/wildupdates.html - to find out where the flowers are blooming. It gives updates on most of the desert areas in the southwest and Southern California. Flower info for Anza-Borrego is also here: https://borregowildflowers.com/pages/blooming.html .

OTHER CNPS ACTIVITIES

Botanist Certification Exam

The next California Botanist Certification exam will be on April 9 in Ventura, CA. This is the only Southern California exam date this year. Register and download the study guide here: https://www.cnps.org/education/botanist-certification .

California Native Plant Week
April 11-19, 2020

RELATED ACTIVITIES

Moosa Creek Nursery

27201 Cool Water Ranch Road
Valley Center, CA 92082

Saturday, March 14, 10 am-noon. No Soggy Bottoms! - The Wise Water Workshop. **Greg Rubin** will provide tips on irrigating natives from start to finish.
Saturday, April 18, 10 am-noon. The Pollinator Friendly Garden. Julie Serences of the Xerces Society will talk about the why, what and how of planting for pollinators.

Tree of Life Nursery

33201 Ortega Highway
San Juan Capistrano, CA 92675

Saturday, March 7, 9:30 – 11 am. Saging the World: Indigenous Wisdom & the Cultivation of White Sage.
Saturday, March 14, 9:30 – 10:30 am. Native bees: their biology, their bee-havior, and the plants they love (or avoid).
Saturday, March 21, 9:30 – 10:30 am. Swallows Tour.
Saturday, March 28, 9:30 – 10:30 am. 5 Senses in the Natural Garden.

Oceanside California Native Plant Garden Tour
Sunday, March 29, 2 pm

See over 18 Native Plant Gardens in the Historic Seaside Neighborhood of Downtown Oceanside! Plant experts and neighborhood locals will lead a 1.5-mile walking tour to see these wonderful front yard gardens. **Meet at 2 pm, Sunday, March 29 in the St. Mary School parking lot at 515 Wisconsin Ave.** The guided walk is free. Kids will be selling lemonade and cookies along the route. St. Mary School is one block east of the 101 Cafe near Coast Highway and Wisconsin St. The Sponsors are the Oceanside Coastal Neighborhood Association and Buena Vista Audubon Society. More info is at: 760-439-2473, https://BVAudubon.org, or https://OCNA101.org. (Editor's note: these are the web addresses I was given for advertising the tour, but I couldn't find anything about the tour on either of them. Maybe the tour will be posted on these websites in March.)

Native Plant Talk
Friday, April 17, 10 – 11:30 am

Susan Krzywicki, a native plant expert, will discuss the "new normal" concept of gardening at the Leo Carrillo Ranch Historic Park stable and corrals at 6200 Flying LC Lane, Carlsbad, She will review key gardening & maintenance strategies, and appreciation of native plants in the garden, near wildland urban interface, and in public places. You will learn about some of the most iconic California native plants – easy to grow and love. Go here to register:

https://secure.rec1.com/CA/carlsbad-ca/catalog/index/8e4fed95eed490045589927e71602d8f?filter=c2VhcmNoPTY5MzEmbG9jYXRpb24lNUIxMjcwNSU1RD0xJmRheXNPZlRoZVdlZWslNUI0JTVEPTE= and type 6931 in the filter box to see class information and to register. The class is FREE.

California Society for Ecological Restoration (SERCAL) Conference
April 29 – May 1, 2020; http://www.sercal.org/

The 27th Annual SERCAL conference will be held at **Palo Corona Regional Park & Discovery Center in Carmel Valley (Monterey)**. The annual conference provides a congenial environment for professionals, students, and enthusiasts to invigorate their work through technical presentations, poster presentations, fieldtrips, and sponsorships.

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, January 10 for the February newsletter, etc. Please submit items to newsletter@cnpssd.org

CNPS-SD Activities Calendar March 2020

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Dedicated to the preservation of the California native flora

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