



CALIFORNIA NATIVE PLANT SOCIETY
San Diego Chapter Newsletter

CHAPTER MEETING

**Casa del Prado Room 101
Balboa Park**

June 19, 2018

Schedule

6:30 pm – Natives for Novices - Planting
Natives in Containers by Sue Marchetti.

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

7:30 pm - Announcements

7:45 pm – Presentation.

Chapter meetings are free and open to the public.

Presentation: by Bob Perry, Professor Emeritus Cal Poly Pomona, Academician, Author, Landscape Architect

Designing native plant gardens can be organized in many facets including science, form, function and art. Taken together, I have found the challenge of designing a native plant garden to be quite overwhelming. This challenge has been made easier, but not simple, by spending years studying plant ecology, morphology, physiology, principles and elements of art, and design form. I am still imprinted by my early years in landscape architecture with two axioms: 'Design is a Process', and 'Form follows Function'. Today, I have come to the view that I have been learning how to write a story. A story that is called: 'My Native Plant Garden'. I look forward to sharing my story.



Bob's books include:
Landscape Plants for California Gardens, Trees and Shrubs for Dry California Landscapes, and Landscape Plants for Western Regions.



Bob Perry is keenly aware of our region's Mediterranean climate and precarious water resources. Throughout his professional life, even when it wasn't fashionable, he has strived to marry garden design aesthetics with water conservation and concern for the environment.

BOARD MEETING

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

FIELD TRIPS

Fire Recovery in Cuyamaca Rancho State Park

June 2, Saturday; 8 am to 1 pm.

DIFFICULTY: Hard, +/- 7.0 miles. Please prepare well for this long hike, with excellent shoes, plenty of water, snacks and a lunch, and a good camera. The trails are good, though we may take the Conejos Trail, which can be steep and brushy. I recommend some bug spray and long sleeves - ticks can be an issue. Knee braces and / or a walking stick might be a good idea - much of the trail will have loose gravel and be fairly steep.

PLANT KNOWLEDGE: All Levels, many specific terms.

For anyone that is unaware of the history of Cuyamaca State Park and the Cleveland Nat'l, the 2003 Cedar Fire devastated the yellow pine forest that covered Middle Peak and Cuyamaca Peak. Since then, the park has gone through many phases of renewal and out-of-balance response cycles. In addition to the many montane and chaparral native plant species we'll find on the long trail, we'll take an in-depth look at natural and human-driven methods of recovery. This is an interpretive walk over a great breadth of a place that is very special for many reasons.

From Milk Ranch Rd, our hike will lead us upwards from the swampy grassland near the lake up through *Ceanothus* chaparral into black oak woodlands and beyond to what's left of the once majestic pine forest. It has been many years since the State Park began an effort to replant the pines and cypress that burned, and we'll check on their status before heading up to the patch of remaining conifer woods along the saddle of the main peak, where great views into San Diego await. If hot weather puts up a fight, we'll find our way down through the Azalea Springs where the shade will help raise our spirits immensely.

I've been up on the mountain every year and while this year has been dry, there is an excellent chance of finding blooming fairy lantern lily (*Calochortus albus*) in early June. Whole fields of velvety false lupine (*Thermopsis californica* var. *semota*) have already been witnessed firsthand, buzzing with huge black bumblebees. Also up this year are wallflowers, paintbrush, ceanothus, baby blue eyes, and western blue flax. Many species of fire adapted plants will be found, though fewer are coming up now compared to previous years.

DISCLAIMER: You will be asked to sign a waiver / attendee list at the meetup. Minors must be accompanied by a responsible guardian. There could be rattlesnakes on the trail as well as the (not likely) mountain lion or (possible) bobcat, so stay alert.

CARPOOL: Park/arrive at Fashion Valley Mall Transit Station at the west side of the mall near Fashion Valley Rd between 6:50 to 7:00 am. At least one truck will be available but be prepared to drive if there more people than spaces! Estimated 100-mile roundtrip. Donations for gas certainly help. The transit center at the bus / trolley station is free to park for 24 hours and has roaming security. Keep in mind parking here has the same risks as street parking. Let me know by message if you are coming in by bus or trolley so I can make sure you have a ride.

DIRECTIONS: Cuyamaca Rancho State Park, CA-79 & Milk Ranch Rd, Julian, CA. Take I-8 east from San Diego past Alpine to the SR-79 exit to Julian. Head north to the turn (turn to stay on 79) and park at Milk Ranch Rd / Los Vaqueros Trail. We'll shuttle to Paso Picacho after we meet. Alt route: S from Julian.

Palomar Mountain State Park, French Valley

June 10, Sunday; 9:00 am to 2:00 pm.

DIFFICULTY: Easy to moderate.

PLANT KNOWLEDGE: All levels.

The Chapter makes this trip annually, with the path this year only slightly different from the previous trips. This time, we'll take the path down to the weir once more, but we'll focus a little more on French Valley, exploring further in for early summer blooms. The oak woodland path back through the campground to the parking lot won't be the end of this trip. We'll eat lunch at Doane Pond and then decide whether to head for the mountain dogwood (*Cornus nuttallii*) up the Doane Valley or go to the rim trail at the upper lot from the

Ancient Cypress grove. I expect there will be a lot to see even though Palomar Mountain has only gotten less than half the usual rainfall this year (normal is 30+ inches).

In 2016, the spring Palomar Mountain trip was cold and foggy - perfect weather for a hike. Last year, the trip was in August, and though sunny and beautiful, it was warm despite the shade of the trees. Come prepared for either type of weather. If driving, make sure you have enough gas for the mountain - there are no services other than restrooms and a restaurant.

NOTE: There is a **\$10 per car entrance fee** to the State Park. Details about the State Park can be found through the Friends of Palomar Mtn website: <http://www.friendsofpalomarsp.org/> which includes maps and info. No dogs on the trails. If you can find a space at the campground, it is a great trip that should be experienced for sure!

CARPOOLING: Park / arrive at Fashion Valley Mall Transit Station at the west side of the mall near Fashion Valley Rd between 7:10 to 7:20 am. At least one vehicle will be available, but be prepared to drive, please! Estimated 120-mile roundtrip. Donations for gas do help. The transit center at the bus / trolley station is free to park for 24 hours and has roaming security. Keep in mind parking here has the same risks as street parking. PM me if you plan to come in by bus or trolley to make sure you have a seat available. (PM = Personal messaging through the meetup ID. Members can message without everyone seeing their info.)

DIRECTIONS: From SD, Escondido (exit Bear Valley Pkwy - East), follow through Valley Center to 76. From I-15, Exit 76 to Pala - East. In Pauma Valley / Rincon head up the mtn on S6 / Hwy 76. Follow signs to State Park using S7. Meet at Doane Pond parking lot.

Punta Colonet & San Quintin Bay, Baja California - MEXICO! Saturday, June 23, 7:00 am, to Monday, June 25, 7:00 pm.

Very special destinations on a cross border camping adventure! CNPS San Diego, in coordination with the CNPS Baja California Chapter will be joining for an international field trip on the Colonet Mesa and about the northern Baja California coastal peninsula. With Josué Campos of RECON and Sula Vanderplank as our guides, we'll take a look at the maritime succulent scrub, vernal pools, and salt marsh areas around San Quintin, south of Ensenada.

This is not a formally planned event; there will not be carpooling or a definite itinerary. Once we meet on Saturday afternoon at the Jardín Botánico San Quintín, we'll follow Josué and Sula to points of their choosing. If you or your guests do not have experience touring in Baja or Mexico, reconsider coming on this trip. The main experience we are going for is an independent camping trip alongside botanists that know the region well. This means everyone takes responsibility for their own preparation, safety, transportation, and proper documentation.

General Itinerary:

June 23, Saturday: Leave San Diego over the border at 7 am. Breakfast in Ensenada (9:30ish), then arrive at Jardín Botánico San Quintín about 1 pm.

Directions to the Jardín Botánico: From the border at San Ysidro/Tijuana (7 am); take Mexico 1 South towards Ensenada (9:30 am) & maintain through tolls and checkpoints to San Quintín (noon). The Garden is one block N & W of stoplight. Juárez & Gral. Esteban Cantú.

We will check out the garden and have lunch while our retinue make it down the Mexico 1. Once all together, we'll check out San Quintín Bay for the afternoon, and then meet to camp at El Refugio, on Reserva Natural Punta Mazo. [About 60 pesos per person.]

June 24, Sunday: Head south at 8 am to Reserva Natural Valle Tranquilo at 9 am for the diversity of cacti in the succulent maritime scrub, lunch, then move to Colonet Mesa and Reserva Natural Charcas Vernales (vernal pools) in the afternoon. The vernal pools will be dry, but there will still be plenty to discuss. About 5 pm, drive back up to Punta Banda and camp at campo 5.

June 25, Monday: 8 am hike on bluffs and then head back to the USA border. From Ensenada, it usually takes 3 to four hours+ to get stateside, so schedule your return accordingly.

IMPORTANT DETAILS:

1) Everyone will require a valid passport to travel in and return from Mexico. It is now too late to renew or get one issued in time.

2) U.S. dollars are accepted (sometimes preferred) in Baja, but I suggest having at least \$100 USD worth of Mexican currency (Mx Pesos) before heading down. <https://www.tripsavvy.com/exchanging-dollars-for-pesos-in-mexico-1588945>

3) You will need to bring supplies for three days. June will be hot, but it can still be cold at night on the coast. Come prepared, as some items can be difficult to find in Baja. Bring bottled water, food, camping gear, maybe extra gasoline, and a thorough checklist covering a

multi-day trip. There are plenty of mercados along the way. If driving, auto insurance for Mexico is required!

4) Spanish translators are very highly recommended. Mexico 1 has tolls and Federale checkpoints. English is not ubiquitous on the peninsula and having a bilingual speaker along will help immensely with misunderstandings and fair trade. At least bring a Spanish-English dictionary or good language app.

5) By signing up on the CNPSSD Meetup page, you confirm that you have read the event conditions and agree to take responsibility (and liability) for yourself and your property.

Baja California is a beautiful and vibrant place with a resilient people and very old culture. Please be respectful and patient. Also, be aware that Mexico can be a dangerous place. Keep informed of this year's elections (July 1) and other news. Do not bring anything that cannot be replaced. The most dangerous things we will encounter will be rattlesnakes, ticks, food / water down. Be confident in your vehicles and supplies. Cell phones may only work on roaming or not at all, depending on your plan. For \$20-30 USD, you can buy a cell phone with minutes on TelCel or AT&T Mexico in Tijuana or Ensenada.

<https://www.bajabound.com/before/aboutmex/phoneguide/cellphonebaja.php>

~ Justin Daniel, Field Trip Chair

both shared thoughts about the many wonderful books available through the library system on these topics and reminded the audience that they could be checked out.

Q&A followed, and the program ended with a no-cost raffle that gave away a donated copy of Santa Monica Mountains Wildflowers (out-of-print) and several recent Fremontias and Floras. The OB Library is part of the City of San Diego Library system.

~ Kay Stewart



CONSERVATION

Conservation Committee

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

Bundling GPAs...And More to Do for Conservation

First, a huge Thank You!! to the Conner Family Foundation for a donation that grew the CNPSSD legal fund by about 50 percent. This was welcome income, as we may well have substantial legal expenses this year.

Hopefully, by the time you read this, you'll know all about GPA Bundling and that it was a kerfuffle. If not, here's my (perhaps belated) explanation.

GPA here isn't Grade Point Average, but General Plan Amendment. It turns out that California Government Code Section 65358 states that "no mandatory element of a general plan shall be amended more frequently than four times during any calendar year." What's the point of a General Plan if it can be amended to allow development at whim? Section 65358 then continues, "Subject to that limitation, an amendment may be made at any time, as determined by the legislative

WELCOME NEW MEMBERS

Angelia Bottiani
Joe & Laurie Ferguson
William Hunefeld
Katherine Powell

Patricia Schick
Deb & Steve Schmal
Jonathan Snapp-Cook
Andy Wiese

CNPS PRESENTATION FOR FIRST CITY LIBRARY NATURE SERIES WAS A HIT

Ocean Beach Librarian Destiny Rivera gave CNPS the first spot for a new monthly speaker's program all about nature. **Phil Roullard** and **Kay Stewart** were welcomed by a standing-room-only crowd of 50. Kay kicked it off by using the chapter's table-top display to explain how the chapter encourages native plant appreciation through conservation and hikes to gardening and publications.

Phil presented a slide show of his gorgeous photos of our County's beautiful flowering plants. Then they

body. Each amendment may include more than one change to the general plan.(emphasis added)" This last sentence has come to be known as "bundling."

Back in March, Mark Wardlaw, the head of County Planning, testifying in front of the County Planning Commission, noted that the County has already approved one GPA this year (Lake Jennings Marketplace), and that there were six others in line: Newland Sierra, Warner Ranch, Otay 250, Valiano, Harmony Grove Village South, and Lilac Hills Ranch. Wardlaw reportedly noted that, County Planning "will be grouping them and bringing them forward to the Board of Supervisors."

In late April the environmental community found out. According to rumor, the GPAs were going to come to the Supervisors in the following bundles:

July 25: 3,936 Harmony Grove Village South, Valiano, Otay 250

September 26: Newland Sierra.

October 31: Otay Ranch Village 14, Warner Ranch, and Lilac Hills Ranch.

Heck of a trick or treat, that last one.

If you're wondering where Safari Highlands went, it's under City of Escondido jurisdiction, not the County, and I expect I'll hear about it later. Also, the rumors don't match what Wardlaw said (why is Otay Ranch Village 14 in that Halloween trick bag?).

The County's haste may be driven by the Save Our San Diego Countryside Initiative (SOS). By the time you read this, we'll know if the SOS backers collected enough signatures to get this on the ballot in November. Certainly, the County seems worried enough about the SOS initiative that they're trying to pass all these GPAs before the November election.

Also, the Board of Supervisors next year will be missing some very familiar faces: Bill Horn and Ron Roberts, possibly Kristen Gaspar (she's running for Darrell Issa's Congressional seat). The County population appears to be becoming more democratic, and (coincidentally?) Wardlaw is proposing bundling, even though Sup. Diane Jacobs announced in early May that she'd never seen it done and wanted a report on it before she did it.

Why is bundling problematic? There are two issues. On the one hand, it's bad for the sprawl promoters, because if the Supervisors pass a bundle, presumably all of it can all be litigated at once. For example, the double-dipping aspect of the Lilac Hills Ranch (which the

voters rejected) can be combined with the execrable botanical analysis on Otay Ranch Village 14 for people to sue over both. This saves on litigation costs.

On the environmental side, the GPA projects I've read have some serious problems. Most propose high end housing in high fire areas. This is a double problem.

San Diego has a real surplus of million-dollar homes on the market, but we have very little at the \$300,000 level where someone of median income can afford to buy a home. Indeed, the building industry seems to think that \$500,000 is a good starting price for a home. The General Plan calls for more affordable housing, but so far, the builders are trying GPAs and expensive homes, rather than following the Plan.

Then there are the GPA fire protection and evacuation plans, most of which are coming from a single consultant. The problem is that many of these GPAs are in fire-prone areas. Valiano burned in the 2014 Cocos Fire, Otay Ranch Village 14 burned in the 2007 Harris Fire, Safari Highlands burned most recently in 2003. All these places need fire safety and evacuation plans, but the published plans boil down to the following: first, every household will be strongly encouraged to develop its own evacuation plan. During a fire, the sheriffs and firefighters, coordinating in an Incident Command system, will do a block by block phased evacuation so that everybody doesn't flee at once in a traffic jam of doom (whatever their individual evacuation plans were). The GPA evacuation plans assume that everybody will get out in an hour by doing this.

I was at a Planning Commission meeting today, listening to two fire chiefs tap-dance their way through this contradictory analysis. The sad part is, they signed off on documents saying that, somehow, this will all work. Worse, the Planning Commission seems prepared to believe them, even when over a dozen people testify that this isn't what happens in a real fire.

From the testimony at the Planning Commission, a very different evacuation scenario emerged. Some people (like one Planning Commissioner) have a plan that starts with "when we smell smoke, we leave." There are lots of people who have horses on their property (3-83 in the Valiano area). Add an hour or more to get home through the mass of fire engines and idiots out of their cars taking selfies with the fire (as in the Cocos Fire), an hour or more to pack when you get home (my evacuation experience), at least an hour to get your horses trailered, more hours in the traffic jam going out, and, oh yes, a fire that takes less than one hour to reach the community (one man timed the Cocos fire

overrunning what is now the Valianos property in 54 minutes). This is not what's in the evacuation plan, and it's why I think "high end fire traps" may be the pithy way to think of these GPAs.

What can you do about this?

1. If you're a neighbor to one of the GPAs, speak up. We need more people at County Planning Commission and the Board of Supervisors testifying about the real conditions around all these developments. People are doing it, and we need more, with fire videos and numbers supporting how long it has taken them to evacuate during a fire.
2. Donate to CNPSSD and other environmental groups that are fighting sprawl. CNPSSD is not in litigation yet, but Sierra Club, Endangered Habitats League, Cleveland National Forest Foundation, and Center for Biological Diversity already are. Everybody's resources are stretched, so if you can donate, please do so. The GPAs are a blitz attack against rational planning in the County.
3. Contact your supervisor and tell them what you think about the GPAs. Be polite! If you don't want more high-end fire traps in the back country, tell them that you want to see more affordable housing in villages, not sprawl.
4. About Lilac Hills Ranch, yes, that may well be approved in October, so you'll have time to call or email your supervisor (again), tell them that you are very disappointed that Lilac Hills Ranch is going in front of them after the voters rejected it, and politely tell them that you expect them to follow the will of the voters in their district.

What was the voters' will, you ask? Thanks to a friend, I have the election results from 2016, broken down by number of votes per district.

- 1st District (Greg Cox): Yes: 85,204 (44.74%); No: 105,223 (55.26%)
- 2nd District (Diane Jacob): Yes: 87,059 (35.54%); No: 157,906 (64.46%)
- 3rd District (Kristin Gaspar): Yes: 86,314 (35.21%); No: 158,813 (64.79%)
- 4th District (Ron Roberts): Yes: 82,454 (34.51%); No: 156,440 (65.49%)
- 5th District (Bill Horn): Yes: 81,291 (34.04%); No: 157,512 (65.96%)

Total: Yes: 422,322 (36.46%); No: 735,894 (63.54%).

These are useful numbers to mention when you contact your supervisor. Supervisor Gaspar, in particular, might be interested to know that more people in her district

voted against Lilac Hills Ranch than voted for her (she won 50.28%/115,295 to Dave Roberts' 49.72%/114,023).

All told, it's going to be an interesting year. Hopefully we can keep San Diego from sprawling out of control. And hopefully the County will be a bit more sane after the election.

And thanks to all who have donated!

~ Frank Landis, Conservation Chair

GARDENING WITH NATIVES

Native Gardening Committee Meeting

June 13. The Native Gardening Committee meets the 2nd Wednesday of each month at various locations. Contact gardening@cnpssd.org for location and time.

Native Plant Landscape in Old Town State Historic Park

Old Town Native Plant Landscape Needs YOU!

June 9, Saturday; 9:30 a.m. to noon. It is seen by more visitors than any other native plant landscape in San Diego. A few die-hard members have tended it for ten years. We hope more CNPS members will come help us and bond with it.

Please come help us grub out unwanted non-native pest plants. Bring your own gloves and hand tools or share ours. Bring water and sun protection.

After we hit the noon hour, some of us will go for a no-host lunch. The landscape is at the corner of Congress and Taylor Streets. Park for free in the lot off Calhoun Street, past the green dumpsters.

Questions? Contact Kay or Peter at OldTownLandscape@cnpssd.org.

~ Kay Stewart

EarthLab Update

Thanks to Chapter's Mini-Grants, Natives at EarthLab are Growing Beautifully

GroundWorks San Diego - Chollas Creek has brought awareness of our natural environment to community members in central San Diego through programs at

EarthLab, a 2-acre plot right off Euclid Ave. and SR 94. Every year, hundreds of public school students learn about growing plants there. Over several years, grants supported staff and volunteers to grow thousands of native plants, to restore Chollas Creek. These projects teach students about wildlife as well as plants. Other projects are teaching students how to grow vegetables and fruit trees.

Most recently, GroundWorks improved 1/4 acre of EarthLab to become a water conserving Demonstration Garden. This area showcases low-water plants that homeowners can plant in their own yards. Mini-Grants from CNPSSD bought CA native plants for the Demo Garden between 2016 and 2018. GroundWorks grants are now funding homeowners to convert home landscapes to conserve water, using many of the plants growing at EarthLab. As the photos show, the native plants sponsored by CNPSSD are growing beautifully on a low-water irrigation schedule.



The Demo Garden is still evolving. It is a dynamic project, engaging community volunteers for various garden projects. With wise management, caring volunteers, and adequate funds, it can grow to be a beautiful community asset for residents of central San Diego. If you are interested, please get in contact to learn more.

~ Kay Stewart



Prehistoric SD County, Part 3

Foothills

The foothills and valleys in San Diego County would have exhibited even greater differences in vegetation from those of modern times. In addition to El Cajon, the major valleys, including Escondido and Ramona, would have supported low growing shrubs but also grassland due to increased precipitation and fine soils and the large numbers of herbivorous mammals.

Except for the big animals, the environment including the vegetation here would have modeled that of the inner mountain foothill slopes of the Monterey/Santa Cruz areas. Winter snow levels would have been repeatedly at 2,000 to 2,500 feet rather than the 3,500 feet that it is now. The foothill mountains, like Otay Mountain, Big Black Mountain, Mount Woodson, Viejas, Poser, Potrero and Tecate Peaks, were regularly snow-capped forested peaks following winter storms.

The vegetation on the foothill mountains would have been pines with *Pinus coulteri* (Coulter pine), more *Hesperocyparis forbesii* (Tecate cypress), *Hesperocyparis stephensonii* (Cuyamaca cypress) *Pseudotsuaga macrocarpa* (Big-coned Douglas fir) mixed with *Quercus chrysolepis* (Canyon live oak), and *Quercus kelloggii* (California black oak). Average precipitation on Otay Mountain would have been close to 40 inches. *Acer macrophyllum* (Big leaf maple) and *Arbutus menziesii* (Madrone) were also part of the forest vegetation community, the big leaves providing large yellow patches on the hillsides in the fall. However, Madrones were dark and grew with large shiny leaves and red bark. In the favorable locations with a bit more shade and rainfall, these trees would have also been mixed with *Pinus lambertiana* (Sugar pine), *Pinus ponderosa* (Ponderosa pine), *Abies concolor* (White fir), and *Calocedrus decurrens* (Incense cedar). This was the same type of forest that currently occurs near the top of the Cuyamaca Mountains and Palomar Mountain. In the hilly areas, Saber tooth cats, Jaguars, and Short-faced and Grizzly bears were common, preying on the Elk, Mule deer, and Bighorn sheep. Mastodons and sloths were individual food processors pulling down low hanging tree branches and shrubs in the forested areas, feeding machines that were actively engaged in eating through much of the day. Shrub oxen browsed on the chaparral and sage scrub vegetation, feeding and chewing for hours at a time, moving in small

clusters and tilting their heavy horned heads at unexpected sounds. A Scimitar cat watched them from a shadowy vantage point.

Rainfall in Ramona, Escondido and Alpine would have reached over 30 inches on average as well with forests of oaks, *Pinus coulteri*, *Pinus jeffreyi* (Jeffrey pine) and *Pseudotsuga macrocarpa*. The hills east of El Cajon would have been covered with a mix of chaparral and woodlands of oak and pine. However, the vegetation would have been open on much of the slopes and river valleys interior basin valleys due to the high numbers of grazing and browsing mammals that were present in these locations, as well as low marshy habitats in the center of the valleys.

The hills north of Santee and near Mount Woodson were covered with pines and oaks mixed in the north again with *Quercus kelloggii*, the deciduous oak, turning rusty gold in the Fall. *Celtis reticulata* (Western huckleberry) and *Acer macrophyllum* would have also grown here with *Calocedrus decurrens*, *Arbutus menziesii* on north slopes in canyons and *Umbellularia californica* (Bay laurel) and *Cercis occidentalis* (Western redbud). Beneath the forests, *Vaccinium ovatum* (California huckleberry) grew as a major component of the vegetation. It would be difficult to say if *Sequoia sempervirens* (Redwood), the *Thuja plicata* (Red cedar) known from central California in modern times, and the *Pseudotsuga menziesii* (Douglas fir), were here. As mentioned, there are fossil indications from the trees of the La Brea tar pits that Redwoods were in the Los Angeles Basin. Douglas fir grows in small numbers in northern Santa Barbara County. If they weren't actually present in San Diego County at that time, they may have been close. The Redwoods may not have found conditions favorable enough for them since they thrive on coastal fog and high rainfall. While it would have been cooler, the coastal areas may not have had quite enough rainfall though they received some fog and in the interior the rainfall was greater but the fog was possibly less prevalent. However, there may have been certain hills such as the Santa Margarita Mountains that could have had enough rainfall and could have been an area where the fog settled with a cooler California current creating perhaps more fog. Case Springs in the Santa Margarita Mountains would have received more than 40 inches of precipitation in an area not as interior and therefore less likely to receive heavy snowfall and cold temperatures or dry periods but close to the coast to be affected by heavy fogs. It could have supported mixed evergreen forests with Maples, Oaks, Bay laurel, *Vaccinium ovatum* and maybe, just maybe, some

stunted groves of redwoods and Douglas fir.

Mountains

The mountains were obviously subject to significant winter snowfall. The averages were higher until the prolonged drought of the last 20 years in which only 3 years were above normal. During the Pleistocene, snowfall on Palomar Mountain would have been over 100 inches per season and more than 160 inches per season on Mount Laguna, based on estimates of the mean level for those mountains in modern times that would have been more than doubled since a greater percentage of precipitation would have fallen as snow (Close et al. 1970). Average seasonal precipitation would be estimated to range from 50 inches on Mount Laguna to 65 at Cuyamaca Lake and 70 plus for parts of Palomar Mountain. While the original conditions would have been predominantly winter precipitation, summer monsoon rainfall would probably have also occurred in the mountain areas, particularly the Mount Laguna area. With colder mountains, the area around Cuyamaca would have looked different. *Populus tremuloides* (Quaking aspen) would have grown along the eastern edge of Cuyamaca Valley over to the desert slopes and would have spread down the east side of Mount Laguna with a continuous band extending down from the Santa Rosa Mountains, Santa Ysidro Mountains above Borrego Springs, and on the east side of Volcan Mountain. *Pinus contorta* (Lodgepole pine), *Pinus lambertiana* (Sugar pine), *Abies concolor* (White fir), *Quercus kelloggii*, *Pinus jeffreyi* and *Pinus ponderosa* and *Calocedrus decurrens* (Incense cedar) would have all grown to the larger sizes in this area. On the upper slopes of Cuyamaca Peak, the precipitation would be approaching 80 inches with a lush, thick forest of conifers and probably more patches of Quaking aspen.

The view of Cuyamaca Lake would have been that of a broad, shallow lake that held water all year long. The east side of the lake would have had groves of fall yellow aspen with subalpine conifers to the west on Middle Peak and Stonewall Jackson Peak to the south.

Subalpine forest had many of the trees that were at the intermediate level forest around Cuyamaca Lake as well as a couple more, including *Juniperus occidentalis* (Western juniper), *Pinus contorta* ssp. *murrayana* (Lodgepole pine), and *Pinus flexilis* (Limber pine), which is found just north of San Diego County now. Other interesting subalpine plants include *Monardella* species and *Erythranthe purpurea* that grows in the San Bernardino Mountains around Big Bear Lake and the Sierra de San Pedro Martir. Douglas tree squirrels

(*Tamiascurreus douglasii*) mentioned earlier, that is closely related to the *Tamiascurreus mearnsii* in the Sierra de San Pedro Martir, occupied the forests along with flying squirrels, Purple finches, Yellow-rumped warblers, and Red-breasted nuthatches. Ruby crowned kinglets with their strong warbling song were also flying around in the forests. Sooty grouse may have occurred in the higher elevations. The grating, hoarse call of the Clark's nutcrackers would have been a common sound in the forest. Pileated woodpeckers, Lewis's woodpeckers and white-headed woodpeckers would have been regular inhabitants in these areas as well.

Sugar pines, White fir, Ponderosa pine and *Hesperocyparis montana* (San Pedro Martir cypress) were also present in the higher mountains but not quite to the highest elevations. The forest was dense and extensive. Mount Laguna was covered with aspen and subalpine coniferous forest. Laguna Lake was perennial, holding water all summer, and the forest extended to the edge of desert escarpment. However, what are now desert slopes would have also supported forests. The rest of the Laguna Meadow was an extensive subalpine meadow with *Carex*, *Juncus* and other wetland species including wildflowers like *Iris missouriensis* (Blue flag iris), *Dodecatheon alpinum* (Alpine shooting stars) and beautiful pink *Lewisia brachycalyx* (Short sepaled lewisia) and white-flowered *Lewisia redivivum* (Bitterroot).

Doane Valley and Mendenhall Valley would have had similar alpine and subalpine conditions. Volcan Mountain and the area around Julian had the subalpine vegetation but also deep forests. Hot Springs Mountain would have had subalpine as well on the slopes of its peak. Winter snow would have been extensive in the upper elevations, standing on the ridges and peaks for weeks at a time instead of just days as it does now.

The top of Cuyamaca Peak, the second highest point in San Diego County, would have been alpine or close to it, with Lodgepole pines, Aspen, *Pinus flexilis* and the *Sarcodes sanguinea* (Snowplant) mixed at the level below the highest point. Similar to what is currently found near the top of the San Bernardino Mountains on top of Cuyamaca Peak and Hot Springs Mountain, there would have been an area of Alpine fell fields with *Heuchera* spp. (alum roots), *Penstemon* spp., and buckwheats (*Eriogonum* spp.).

On a walk out into the meadow in Mendenhall Valley on Palomar Mountain during a late winter evening one might have seen a few deer and a Puma skulking in the shadows of the massive 180-foot tall Sugar and

Ponderosa pine trees. The Sugar pines had trunks more than 9 feet in diameter. On the nearby rocky ridge over on Eagle Crag on Agua Tibia Mountain, Bighorn sheep climbed up, pulling themselves through the chaparral and the adjacent woodlands. A lithe and graceful Jaguar watched them closely from the entrance of a rocky den nearby.

~ Tom Oberbauer, President

Related Activities

SD Weed Management Area Annual Seminar June 4, 2018; 9 am to ~ 3 pm.

Come to this free seminar to learn about weeds, pests and land management. Use the link below to register for the event:

<https://ucanr.edu/survey/survey.cfm?surveynumber=21106>

The seminar will be in the Board of Supervisors room at the San Diego County Operations Center (5520 Overland Ave. San Diego CA, 92123). The agenda will be posted on the registration page once it is finished. We will be applying for at least 4 hours of CA Department of Pesticide Regulation CE hours, including 1 hour of laws and regulations. This seminar is jointly produced by the University of California Cooperative Extension, the San Diego County Agriculture Weights and Measures Department, and the San Diego County Weed Management Area.

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

CNPS-SD Activities Calendar June 2018

- 6/2: Field Trip to Cuyamaca Rancho State Park, p.2
- 6/5: Conservation Committee Mtg, p.4
- 6/6: Board Meeting, p.2
- 6/9: Old Town Garden Workday, p.6
- 6/10: Field Trip to Palomar Mountain State Park, French Valley, p.2
- 6/13: Garden Committee Mtg, p. 6
- 6/19: Chapter Meeting, p.1
- 6/23-25: Field Trip to Baja, p.3

MEMBERSHIP APPLICATION

___ Student or Limited Income \$25; ___ Individual \$45; ___ Family \$75
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