

CALIFORNIA NATIVE PLANT SOCIETY

San Diego Chapter Newsletter

CNPS-SD FALL PLANT SALE 2020

This year we are offering the same amazing selection of over 300 species by PRE-ORDER only.

- Ordering begins September 1 and ends on September 15 on our sale site at:
<https://www.cnpssd.org/events/fallplantsale2020>
- 300+ plant species including Baja selections
- 100+ seed species
- Books and merchandise
- Safe PICK UP of plants and other items on the last weekend of October at a central location in the City of San Diego
- Special offers for CNPS members
- Ordering ends after first 180 orders are received

For more information and to order, visit: [cnpssd.org/events/fallplantsale2020](https://www.cnpssd.org/events/fallplantsale2020).



We're excited to bring these beautiful California native plants to your garden from multiple nurseries in southern California. Updates will be posted on social media and by email.

CNPS-SD BOARD MEMBER ELECTION – NOVEMBER 2020

CNPS San Diego has eleven (11) members of the Executive Board whose term of service is two (2) years. Six members are elected in the even numbered years, like 2020; 5 are elected in odd numbered years. If you have interest in being more involved in the Chapter by running for the Board for the 2021-2022 term, please contact vicepresident@cnpssd.org.

HELP NEEDED: ONLINE PROGRAMS

Would you like to help develop or host CNPS-SD Live Online Programs? We are looking to expand our crew. Roles include Scheduling, Communications, Technology, Social Hour Host, Presentation Host, and Support. Please contact programs@cnpssd.org if you would like to volunteer some time to help the chapter put on great online programs.

PRESIDENT'S MESSAGE

The San Diego Chapter of CNPS is working hard on so many things behind the curtain right now, like getting the Fall Plant Sale ready for everyone, continuing the fight for protecting wildlands and rare plants, and especially trying to anticipate how our mission and operations fit into a changed world. One thing for sure is that the state of California is actually meeting climate targets due to the slowdown of economic activity. While continuing the shutdown clearly isn't the whole answer to the climate crisis, many of the habits we're getting used to are good to keep going. Families are enjoying the local parks and canyons and many are connecting with the outdoors in ways we hope will turn into sustained love of a clean, diverse, and welcoming environment. Travel closer to home to places still unknown, and help out our neighbors in need in what ways we can. Even planting native plants in the front yard or advocating for more trees along our streets makes our society more resilient to uncertain times.

We are looking for volunteers for the last week of October for the Fall Plant Sale. While actions continue to be limited, our committees are active, so if you have a desire to get involved, you are welcome aboard! If you have skills in videography, sound, online media, biological surveys, or a background in education, please reach out to president@cnpssd.org or info@cnpssd.org. Thank you for being a member of CNPS!

~ Justin Daniel, President CNPSSD

BOARD MEETING

Wednesday, September 2, 6:30 – 9:00ish p.m. The meeting will be via Zoom. To add an issue to the agenda, or to get the link to the meeting, please email president@cnpsd.org.

August 5 Board Meeting Summary

To conform to the directive from the CNPS office, this meeting was held via Zoom. The Chapter Board voted to approve the following items:

- Sponsoring the Cal-IPC Symposium at the \$1,000 Grassroots Gold Level.
- Forming a volunteer committee to run the 2021 garden tour.
- Giving a \$500 mini-grant to the Grauer School in Encinitas.
- Applying for a Community Partnership with the Girl Scouts San Diego.

~ **Bobbie Stephenson**, Chapter Secretary/Newsletter Editor

GARDENING WITH NATIVES

Garden Committee (GC) Meeting

The September's Garden Committee meeting is scheduled for **Wednesday, September 9, from 6:30-7:30 pm** and will be held by Zoom. If you are interested in attending, please contact gardening@cnpsd.org.

We would love to see more people involved in the GC, and the responses from last month's GC survey so far have been very helpful. If you haven't had a chance to complete the survey, please take a minute to do so by clicking on this link: [CNPS-SD Garden Committee Survey](#). The more responses received, the better this will help with making plans and prioritizing projects for the GC in the upcoming year. We will share the survey results at September's GC meeting.



The GC Co-chairs thank you for taking the time to fill out this survey and we hope to see you at the next meeting! Feel free to contact us at gardening@cnpsd.org.

~ **Judie Lincer, Nancy Levine & Christine Hoey**

Woolly Bluecurls (*Trichostema lanatum*)

Woolly bluecurls naturally occurs in the coastal chaparral on the dry slopes of the Coast Ranges from Monterey and San Benito Counties of California, south to northern Baja

California. Woolly bluecurls gets its common name from the colorful (white to purple) woolly hairs that cover the stems and calyces. It also has woolly white hairs on the undersides of the narrow aromatic leaves, which are shiny green above.

This highly fragrant, small evergreen shrub or sub-shrub in the Lamiaceae (Mint Family) likes full sun and blooms from spring to summer. The bloom period can extend into fall



with a little supplemental summer watering, but only give it summer water if the soil drains well. Woolly bluecurls makes a great cut flower; note the long silky recurved stamens on the flowers in the photo to the left.



Photo: www.lindavistanatives.com

Do not amend the soil or fertilize heavily.

The petals are fused to form a slender tube. Nectar at the bottom of the tube is accessible only to long-tongued pollinators like hummingbirds, large bees and the long-tongued larger butterflies.

~ **Bobbie Stephenson**, Newsletter Editor

CONSERVATION

Conservation Committee Mtg

Contact conservation@cnpsd.org for information.

Planning?...

But first the news. Otay Ranch Village 13, which was rescheduled to be heard by the Supervisors on August 5, was put off until September, maybe October. The reasons? At this point, I'm speculating. It could be that County Planners are trying to figure out what to do with the greenhouse gas issues now that there isn't a County Climate Action Plan. It's possible that between COVID-19 and the incredible shrinking budget, passing this development just doesn't rate high enough to take up hours of hearing time. It's conceivable that Supervisor Gaspar, who as you may have heard is up for re-election, doesn't want to get stuck in a no-win vote as she was on Lilac Hills Ranch, at least before the election. Probably it is the first two, but we're still waiting for developments.

The last few weeks I've been working on the Otay Hills Aggregate Quarry, hence my lament about planning and the lack thereof. Unfortunately, it's an example of how to do a project wrong, at least in my humble opinion.

The project's general idea is to dig a deep hole in the ground, grind up the suitable rock therein, mix it with asphalt onsite, and use it to pave roads. Then, as parts of the hole are worked out, to fill it full of construction debris. We need to keep rebuilding our roads and to rebuild for climate change, what could be wrong with this?

First, there's the timescale. The proposed project would finish around 2114. And, even though there's a 1,000 gallon gasoline tank and a large asphalt tank system proposed for the site, this is not supposed to emit enough greenhouse gases to be a problem. Really? The people doing the EIR (accidentally?) didn't reference Governor Brown's executive order calling on the state to become carbon neutral before 2045 and carbon negative thereafter. So this project depends on materials, like gasoline and asphalt that largely won't be available for most of its duration, assuming we do the smart thing and decarbonize. Apparently, the idea is to grandfather the project in to post-petrochemical California, then make the rest of us deal with its carbon emissions, and also keep up the petroleum-based infrastructure it would need to keep its current business model.

The sane alternative would be to permit it for 10 to 20 years, then require a new permit, with a new business model, before allowing extended operation. Unfortunately, that wasn't part of the EIR.

Then there is the location (yes, I know you in the Sierra Club were fuming that I wouldn't get there). It's at the edge of the MSCP, in an area with rare plants and the federally listed endangered Quino checkerspot butterfly. So, in addition to blasting a big hole in the ground (literally: explosions and extractions planned from 5 am to 10 pm daily), they want to move the MSCP boundary back juuuuust a little bit to make this work. The noise won't impact the adjacent wildlife because it never does in an EIR.

We've been here before, and getting road base is not on my list of reasons why any species should be nudged towards extinction. Crappy site for a mine, really. Crappy site for anything but native plants and animals.

While I'm at it, I should point out that we desperately need to find alternatives to landfilling for managing our trash. I know how difficult this is, but digging new holes designated for the kind of trash we discard now doesn't help us generate the necessary will to do better things with our wastes.

And then there's the EIR itself. The botany surveys used for the EIR stretch from 2001 to 2010, basically. The numbers of sensitive plants they found are kind of added together across these years, and the sum is stated as if it's what is there now. For annual plants that die every year (Otay tarplant, in this case), even though those plants weren't there at the same time. But that's how many they plan to take care of. Worse, the entire site burned in 2003, and they're still using the pre-fire vegetation maps. The worst thing was that they never checked to see if the list of sensitive species they used for surveying had been updated in the 19 years since the project started. The bad news for them is it has been, so they didn't

survey for everything that's currently endangered and likely on the site. This is basic bad science and even bad faith. An EIR is supposed to describe what's currently there, not what was there a long time ago when someone was willing to pay for a survey.

I already mentioned that, allegedly, this project won't emit enough greenhouse gases to be worth regulating. I had pointed comments about that notion, and others commenting on it were rather more savage.

Then there are the fire issues. Because they are just reusing an old EIR, they entirely missed the recent upgrades to the CEQA guidelines wildfire questions, so they didn't do a complete job. Rather more annoyingly, the project buildings (which among other things, hold that 1,000 gallon tank of gasoline and ammonium nitrate when it's on site) were deemed temporary, so the EIR claims they don't have to do all the wildfire workup that they would do for a housing development. Since I happen to know that the design life on most homes is 50 years (that's why you need to do upkeep, remodels and replacements), the notion that the buildings in a 90 year project are "temporary" is laughable.

The saddest part is that, apparently, this went through the County of San Diego Planning & Development Services. What I hope to see from our planners is that they catch the obvious lapses, know enough about state and local regulations to correct problems when applicants make mistakes, and have a vision of the county going carbon neutral that's more than politely mouthing words that go on pages on websites.

And this is where you come in. This column isn't just a rant, it's a call to action. We've been tolerating these kinds of projects for far too long in San Diego County. Fortunately for us, this is a really critical election where we can make a difference. If the Third Supervisorial District changes parties, the balance on the Board of Supervisors changes toward democratic, and we (hopefully!) will get planners who do a proper job with problematic projects like these.

Even if you're not in the Third District, I think you probably realize that this is the most important election in decades, possibly in your lifetime. The choices we make in November will be long-lasting and irreversible. CNPS does not advocate for a particular party, but we do advocate for native plants, for the ecosystems they need, for a climate that supports them, and for human safety. I hope these are values you will work and fight for.

What I ask you to do between now and November is:

- Get politically active.
- Vote.
- If things get weird after the vote, insist on the rule of law by every means you can.

Political activity isn't just registering to vote, it's knowing the issues, donating money, phone banking, writing get-out-the-vote letters, all that stuff we shy plant lovers hate to do. But right now it has to be done. We don't need more projects like Otay Village 13, Otay Hills Quarry, or certainly Otay Village 14.

We need a working County Climate Action Plan and a County that puts life ahead of money. You can help disempower the groups that are pushing these bad ideas, if you get active this fall and follow through.

Thanks.

~ Frank Landis, Conservation Chair

KNOW YOUR RARE PLANTS

Chaparral Nolina (*Nolina cismontana*)

Chaparral nolina is one of our larger and easily recognized rare plants. It is a robust perennial, with a thick woody underground base or a short woody trunk, with a dense crown of long, often arching, grass-like leaves as much as a meter long and with finely serrate margins. The inflorescence consists of a single scape, typically 1.5-2.0 meters tall, dressed with short, narrowly-triangular bracts that are progressively smaller higher on the stem, and topped with a candle flame-shaped inflorescence



of relatively small, cream-colored flowers. The plants are dioecious (male and female flowers on different plants). The flowers are in dense clusters, and the fruits are rounded, dry and inflated three-parted capsules a little more than a centimeter long.



Overall, chaparral nolina is suggestive of chaparral yucca (*Hesperoyucca whipplei*),

with which it is often confused with when plants are not in bloom. Chaparral yucca, however, lacks any sort of woody trunk or underground mass, and the leaves are rigid and are tapered from the base to a narrow spiny tip that is sharp to the touch (and will prick unassuming hikers in the legs and arms) while chaparral nolina leaves are generally flexible and the



tips are longer, brown for several centimeters, and the ends are generally not all that sharp to the touch. In bloom, the small size of the nolina flowers, in addition to their high density, makes it easy to separate the two plants. The flower on chaparral nolina is typically less than a centimeter wide while in chaparral yucca, the flowers are large, fleshy, 3-6 cm long, and the fruit of chaparral yucca is generally longer than 3 cm.

One usually finds chaparral nolina growing in clusters of plants, patches or rings of clones, whereas chaparral yucca rosettes are solitary, or perhaps in groups of 2-4. When in groups, they can usually easily be separated by the lack of a woody base and the leaf shape.

Of the three other nolinias species in San Diego County, only Dehesa nolina (*Nolina interrata*) is found fairly close to chaparral nolina in the vicinity of the I-8. Dehesa nolina lacks any above ground trunk and has leaves that are a pale blue-green as compared to more of an olive green for chaparral nolina.

Chaparral nolina is found primarily in central northern San Diego County on gabbro soils along the San Diego/Riverside County border east of the I-15 south to the vicinity of Pala; an isolated site in northwestern Camp Pendleton Marine Corps Base; Hellhole Canyon; and a relatively large population found on Viejas Mountain in South County. It is found mostly in chamise chaparral and nolina scrub. Overall, the species ranges from the Transverse Ranges of Ventura and Los Angeles County south into northwestern Baja California, Mexico, from about 100 to 1,270 meters.

Historically, chaparral nolina was lumped under Parry's nolina (*Nolina parryi*). In a 1988 thesis, **Jim Dice** proposed that plants from the coastal slopes, with shorter scapes and trunks (or without trunks), and narrower leaf bases represented a separate species. The 1993 edition of the Jepson Manual included a brief shout-out under the entry for Parry's nolina stating "±coastal plants from WTR (Ventura Co.) and n & w PR that are smaller throughout (exc seeds) with n=19, are an undescribed sp." Chaparral nolina was formally described by **Jim Dice** in 1995, so it is a relatively recent addition to the flora of San Diego County.

Jim Dice, in his 1988 Master's thesis, expressed conservation concerns for this plant. Especially in the 1980s and early 1990s, most of the populations were found in the foothills and mountains ringing the Los Angeles Basin and as much as 80 percent of all known plants were on Orange County's expansive Irvine Ranch where large swaths were within proposed planned communities and tollway projects. The species was quick to earn a CNPS 1B rank shortly after it was formally described. Today, it carries the California Rare Plant Rank of 1B.2. The risks to the species have diminished with time. While the tollways were built, many of the extensive Irvine Ranch projects eventually became part of Orange County parks. At the time of Jim's thesis, chaparral nolina was only known from a few sites near Pala and on Viejas Mountain in San Diego County, and it has since been found in other areas, though mostly in small isolated sites beyond.

HABITAT RESTORATION

So, one obvious feature is missing from my write up. Which family does the genus *Nolina* belong to? I would usually mention that casually in the opening sentence. It is a bit unclear just where *Nolina* belongs exactly, and you can tell this by the history of which family the plant has been stuffed into in various floral treatises. iNaturalist for example (following the Royal Botanic Gardens, Kew's "The Plant List", which in turn relies on the Angiosperm Phylogeny Group (APG) IV arrangement) would have you believe this is a glorified asparagus, a member of the Asparagaceae. It doesn't seem California botanists are quite ready for that. Mostly we are still following Jepson II, which treats *Nolina* as a member of the butcher's broom family (Ruscaceae). Not everyone agreed on that treatment either. In Jepson I, *Nolina* was just one of many members of the Liliaceae and there are California botanists that still follow that (though their numbers are thinning!). Interestingly, the Jepson I treatment is consistent with the original 1923 Jepson Manual treatment, but then, Liliaceae was the go-to bin for a lot of lily relatives throughout much of botanical history. Munz, in his 1959 and 1974 Flora of Southern California, considered it a member of the agave family (Agavaceae) – this is what I grew up with it as. Anthruser Davidson, in his 1923 Flora of Southern California placed *Nolina* in the Dracina family (Dracaceae). And this is just the diversity of homes *Nolina* has had in the California floras. Whether it is a butcher's broom, agave, lily, or glorified asparagus, it is a very cool plant.

~ Fred M. Roberts, Rare Plant Botanist

Joshua Tree Listing Update (*Yucca brevifolia*)

At a virtual meeting in August 2020, the California Fish and Game Commission for a second time delayed the decision of whether to list the Joshua tree as a threatened or endangered species after more than 5,000 comments for



and against its protection had been submitted and after hearing comments from people for and against listing at the virtual meeting. The Commission voted to delay action until September to allow more study.

The Joshua tree is a Mojave Desert native that can live for hundreds of years, but it is threatened by climate change, wildfires, and development, especially development of solar and wind energy projects. Regarding climate change, recent studies show the tree's range is contracting at lower elevations, and its reproduction has all but come to halt.

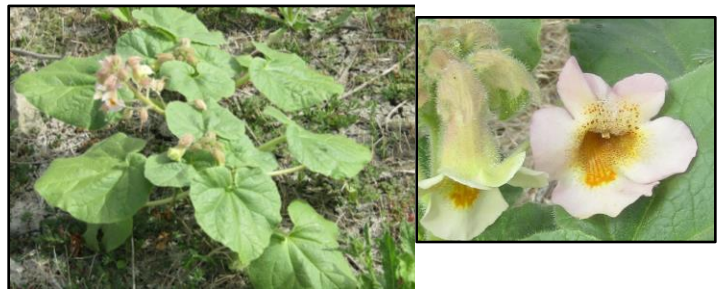
A petition was submitted last year by the Center for Biological Diversity to list the Joshua tree as a threatened or endangered species.

The end of August heat wave put an early end to exotic plant removal by the Habitat Restoration Committee for the season. We still managed to pull up a considerable number of stinkwort (*Dittrichia graveolens*). Because we have more volunteer members this year than in the past, we are far ahead in terms of keeping the numbers of this highly invasive weed low.

Native goldenbush (*Isocoma menziesii*) is doing very well. We noticed this earlier in the year as well, but now as the goldenbush prepares for flowering we are seeing much more in areas where previously there was mostly grass. Goldenbush is fighting an invasion of nonnative bristly oxtongue (*Helminthotheca echioides*). This is an annual species, named for the coarse protuberances growing from leaf surfaces. One of our working principles has been that weedy annuals will eventually lose out to native perennials such as goldenbush. However, the sheer number of closely growing oxtongue is leading us to rethink this. They can't help but out-compete slower growing natives. We will probably devote considerable time to treating oxtongue next spring, while it is still in rosette form.

The week of August 17 marked the beginning of our yearly sabbatical from restoration efforts due to heat. I'll keep everyone posted on our return to restoration work when the weather cools.

In other CNPSSD Restoration Committee news, we discovered a plant new to us, Ram's horn (*Proboscidea louisianica*) in a catch basin at Lusardi Creek. Calflora describes it as non-native and non-invasive. Wikipedia says the name derives from the appearance of the dried fruit, which appears as dual horns up to 15 cm long. Native Americans ate the seed. An annual, it possesses a weedy-like appearance (Wikipedia) and grows in wetland-riparian areas (Calflora), which is an appropriate description of where we found it. We observed perhaps 2 dozen individuals. Photos below by Bob Byrnes.



In addition, we found this native plant at our restoration site - whorled marsh pennywort (*Hydrocotyle verticillata*) growing in a damp floodplain of the San Dieguito River. The leaves are actually larger than a penny, with most around the size of a quarter. The bloom period according to Calflora is April through September, though no flowers were observed on the pennywort when we saw it. Thanks to Caitlin for identifying the plants.



Hydrocotyle verticillata

~ **Bob Byrnes**, Habitat Restoration Co-Chair

BOTANY

“Lost” grass *Sphenopholis interrupta* ssp. *californica* discovered

“What is this grass?!” On April 23, 2020, 6-feet apart, eyes bleary above their masks after long days of hiking 10+ miles, **Jessie Vinje** spotted a strange grass. **Margie Mulligan**, her field partner and botanical complement, didn’t know.

Jessie had visited the same site annually five years in a row, but "this year we got lucky: although our target species wasn’t even flowering yet, the timing and weather were just right for the mystery grass. Without our combined expertise and determination, it would still be sitting in my plant press.”

At the end of their work day, they gathered their mystery grass specimen, backpacks, and monitoring equipment and bushwhacked through chaparral, black mustard, artichoke thistle, and stinging nettle. Compared to other work sites they monitor, this one was relatively easy to access since it didn't require crawling.

They used the Jepson key and consulted experts. Ultimately, **Jon Rebman** at the San Diego Natural History Museum Herbarium determined that the grass was *Sphenopholis interrupta* ssp. *californica*. The only other records of this species were two voucher specimens collected 130 years ago by Charles Orcutt in Baja: April 1, 1890 east of Tijuana and April 19 near San Ramon.

This find was a rediscovery of a presumed extinct grass and a new botanical observation for the U.S. They vouchered their find, deposited it in the SD Herbarium, and added their observation and photos to Calflora. In addition to uploading their photos to Calflora, they obscured the exact location of the grass at the request of the property owner.



Vinje (left) & Margie Mulligan (r)

Congratulations to Jessie and Margie on their exciting discovery!

Jessie works for Conservation Biology Institute and Margie is a botanical

consultant who is also affiliated with the San Diego Natural History Museum. They are working together on the San Diego Management and Monitoring Program’s Rare Plant Inspect and Manage (IMG) Monitoring Program.

They found this grass while monitoring *Acanthomintha illicifolia* as sub-consultants to AECOM for the IMG project funded by the San Diego Association of Governments. Photo by Jon Rebman.

Vegetation Textures and Color

San Diego County has varied topography throughout: beaches, mesas and canyons, foothills, mountains, and desert. That makes it somewhat distinctive from other counties that mostly consist of mountain ranges and valleys, like Riverside Co., Los Angeles Co., and parts of Orange Co. Also, the development patterns here have allowed for the persistence of native vegetation on slopes around Mission Valley, along I-5 north of Mission Bay, and along I-8, as well as SR-67 and SR-52.

Because we have such varied topography, we also have a variety of vegetation communities; the patterns and texture of the vegetation are strikingly different depending on where you are. Following adequate rainfall seasons, the vegetation may appear quite vigorous with new growth that fills in gaps created by long, dry summers and falls.

One of the most distinctive vegetation communities in terms of color, texture and patterns is pure Coastal Sage Scrub, Diegan Coastal Sage Scrub, or *Artemisia californica*, *Eriogonum fasciculatum*, *Rhus integrifolia* vegetation.



Coastal Sage Scrub in Rose Canyon west of I-5

During dry periods, this vegetation loses many of its leaves. *Artemisia californica* (California sage brush) becomes gray-brown due to shriveled up leaves, and *Eriogonum fasciculatum* (California buckwheat) may have reddish leaves. *Rhus integrifolia* (Lemonade berry) remains green all year. Often a part of Coastal Sage Scrub, *Salvia mellifera* (Black sage), with its drought deciduous leaves, may appear gray and dead when the weather is extremely dry.



Salvia mellifera & *Malosma laurina* at Mission Trails

However, following good rains, *Artemisia californica* comes alive as a soft, gray-green color. Morning light brings out the color in patches. This color mixes with the occasional contrasting darker color of Laurel sumac (*Malosma laurina*). It has a bumpy texture as a result and sometimes the Laurel sumac is partially covered with the bright green vines of *Marah macrocarpa* (Wild cucumber) and is mixed with bright green, shiny leaved *Toxicodendron diversifolia* (Poison oak). This vegetation is usually on south and west facing slopes, but near the coast it can be on northern slopes. The gray-green color of *A. californica* is especially striking since none of the other vegetation around is that color.

Along the direct coast, such as Point Loma and around the lagoons in the northern part of the County along I-5, the Coastal Sage Scrub has a dull green color that turns gray-brown in summer, but vegetation with *Encelia californica* (California encelia) provides yellow flowered shrubs for a few weeks in early spring. When flowering en masse, the slopes appear with a rough texture yellow color.

On slopes a bit further inland, another shrub that has a dull green color in spring and turns brown in summer is *Bahiopsis laciniata* (San Diego sunflower). *Bahiopsis laciniata* has bright yellow flowers with yellow centers. It grows on south facing slopes along I-15 through Murphy Canyon. Prior to the 1980s, it also covered the south slope along I-8, west of Adobe Falls, near the College Avenue off ramp. However, since then, *Cenchrus setacea* (Fountain grass) spread into the *Bahiopsis laciniata* gradually taking it over and replacing it, even in the absence of fire or other disturbances. Only patches of *Bahiopsis laciniata* remain where once the entire slope was covered with it.



Artemisia californica & *Bahiopsis laciniata* at McGinty Mtn

Fortunately, it still covers slopes around Otay Mountain in a variety of locations and into Dehesa Valley and Harbison Canyon.

Chamise (*Adenostoma fasciculatum*) Chaparral is one of the smoothest, most uniform vegetation communities when viewed from a distance. In the center of the County, Viejas Mountain, Poser Mountain, and even the mesa tops on Marine Corps Air Station Miramar support this vegetation. Where it grows on gabbro and other smooth rock types, including cobblestone formations on eastern Miramar, it has a smooth pattern of dark green with a brown and black base that makes it very dark in appearance. However, in the interior or areas where it is adjacent to Mixed Chaparral, there may be spring time colorations of white from

Ceanothus perplexans (Cup-leaf lilac), a shrub with a warm, creamy scent while in flower.



Ceanothus perplexans at Buckman Springs

On north facing slopes in urban San Diego and many of the slopes east of Encinitas and south of Escondido, the vegetation is a mixed chaparral type. In Mission Valley, it has a dark, lumpy appearance due to the variety of plants growing there, one of which is *Ceanothus verrucosus* (Wart-stemmed ceanothus), which generates white coloring from tiny flowers in early spring and late winter.

As one travels east toward Ramona or even toward Lakeside, through Mission Trails Park, the Mixed Chaparral takes on a different spring coloration, a darker blue, resulting from *Ceanothus tomentosus* (Ramona lilac) and *Ceanothus leucodermis* (Chaparral whitethorn) flowers in the millions on the shrubs. After a good rainfall season, the hills may seem deep blue due to these shrubs.

Mixed Chaparral in the back country is more varied. Shrubs of *Quercus acutidens* (Torrey's scrub oak) grow in rounded ball shapes extending a bit higher than the adjacent chamise and other shrubs, giving Mixed Chaparral a bumpy, uneven texture. When *Arctostaphylos* (manzanita) is present, either *Arctostaphylos glandulosa* (Eastwood manzanita; below) or *Arctostaphylos glauca* (Bigberry manzanita), the shrubs are usually a bit lighter shade of green than the rest of the Mixed Chaparral. They are distinctive and identifiable from a distance.



Colors of Mixed Chaparral in the interior may also be enhanced by blues and whites with *Ceanothus leucodermis* blues and sometimes pale blues and *Ceanothus perplexans*, the whites.

The southern part of the County supports a varied and complex pattern of Mixed Chaparral. In the Japatul area, vigorous Mixed Chaparral combines the *Ceanothus* and *Arctostaphylos* with the scrub oak and chamise to create a strong and tall growing chaparral. Along I-8, near the turnoff for the Sunrise Highway, *Adenostoma sparsifolium* (Red shank) is dominant and creates a texture that is more fluffy and soft appearing than other Mixed Chaparral, and the color is a little lighter green with some yellow and brown background. In these southern areas, a number of valleys and mesas exist where the chaparral grows down to the edge of the valley or other flatter terrain, and the silver leaved *Artemisia tridentata* (Great Basin sagebrush) fills in the lower areas. The contrast in color between the chaparral and the sagebrush is striking.



Buckman Springs, La Posta Road, and Live Oak Springs are areas where this color phenomenon is visible (above).

On a number of mountains and peaks with unique soils, especially soils derived from gabbro and metavolcanic rock, a specialized vegetation, with a brilliant green color in spring, has evolved. *Chamabatia australis* (Southern



mountain misery; above) has strongly aromatic fernlike leaves and white rose-like flowers in spring. However, the vegetation on north slopes creates a smooth, fresh green color where it grows. At other locations, *Hesperocyparis forbesii* (Tecate cypress) and *Hesperocyparis stephensonii*

(Cuyamaca cypress) grow on the gabbro and metavolcanic soils with a very dark green color of an aery vegetation with bristle-like texture depending on how long since the last fire.

Of course, where a drainage flows through a valley or the soil is deep enough and precipitation great enough, the pattern of chaparral touching a line or patch of *Quercus agrifolia* (Coast live oak), creates a visual design that portrays the diversity and variability of the vegetation contrasts.



Quercus agrifolia, *Q. acutidens*, *Arctostaphylos glauca*, *Adenostoma fasciculatum* and *Lasthenia* sp. at Corte Madera.

Farther east in the desert, the pattern of the vegetation becomes overshadowed by the dryness. With 6 inches of rainfall or less each season, the rocky slopes behind the vegetation become more prominent than the vegetation itself. However, in the chaparral transition zones and juniper woodland areas, the vegetation may create a pattern depending on the slope aspect with the north slopes more heavily vegetated than the south slopes. Junipers can grow as small trees or large shrubs in those areas.



Desert transition zone

In the mountainous regions of the County, forest vegetation creates its own patterns depending on the mix of trees and shrubs. A remnant stand of old growth forest on Cuyamaca Peak still supports a mix of Sugar pines (*Pinus lambertiana*), Incense cedar (*Calocedrus decurrans*), White fir (*Abies concolor*) and Black oak (*Quercus kelloggii*).

The taller trees, the Sugar pines and White firs, reach a little higher than the other trees in that area. The forests there create more of a 3-D situation in which you are inside it rather than viewing it from afar. However, on Mount Laguna and other parts of our mountains, pine forests composed mostly of *Pinus jeffreyi* (Jeffrey pine), create an extensive cover over a large area and when viewed from a hilltop, they create a bristly texture. The view across

Mendenhall Valley on Palomar Mountain from the road to the observatory presents a forest of deciduous and evergreen oaks, as well as Jeffrey pines and White firs, a full, rich texture of trees.



Pinus jeffreyi in the Laguna Mountains

Finally, while not so apparent from the ground level, the riparian systems create a cover of vegetation that is also forested and three dimensional. If one ever has the privilege of viewing the Tijuana River Valley from the hills on its south, though its trees are being impacted by Shot hole borers, one could see the bright green color and soft texture of the riparian woodlands. The Santa Margarita River near the Camp Pendleton MCAS Airport, and the Sweetwater River upstream from the Sweetwater Reservoir, are other locations of such full cover riparian vegetation.

Next time you are driving around the County, particularly in the spring, look at the hillsides, even those in the City of San Diego, and think about the diverse factors that have created these areas of vegetation and their colors, patterns and textures that exist and even change during the year.

~ Tom Oberbauer, Past President

CNPS BRYOPHYTE CHAPTER ONLINE PRESENTATIONS

Chris Wagner of the Bryophyte Chapter is preparing a series of nonvascular plant online presentations for Southern California. These talks are geared towards education about lichens and bryophytes. Since there is so much interest in lichens and bryophytes, but not enough people to learn from, he decided to reach out to others who are interested.

The talks began August 14 and will be every 1st and 3rd Friday evening of every month, and be either on zoom or teams. To hear these talks, contact **Chris Wagner** at mossgeek@yahoo.com and give him your email address so he can send you the information to participate.

RELATED ACTIVITIES

Sikes Adobe Historic Farmstead Volunteer Opportunity

The Sikes Adobe Historic Farmstead is seeking volunteers to help maintain the gardens and surrounding River Park habitat. Your expertise would be greatly appreciated and all volunteering can be done at a safe physical distance. Duties include watering, planting, and weeding the gardens, orchard, grape vines, native plant gardens and nursery. No experience is required - great for people who enjoy working outside and are looking for a way to give back to the community. Work can be done on your own schedule. They're also looking for volunteers on Sundays to help run the Sikes Adobe Farmers Market booth.

For more information please contact Leana Bulay directly at: (760) 716-1214 or leana@sdrp.org.

Water Conservation Garden

The Water Conservation Garden, a special place filled with healing, wellness and rejuvenation through nature, is open. For info please see: <https://thegarden.org>. All members of The Water Conservation Garden and reciprocal garden partners get in for free. See a list of reciprocal garden partners in California here:

<https://ahsgardening.org/gardening-programs/rap/?state=CA>.

Address: 12122 Cuyamaca College Drive West, El Cajon, CA 92019.

Cal-IPC Symposium Online

October 27-30, 2020

Recovery & Resilience: Confronting Fire, Weeds, & Forest Pests

<https://www.cal-ipc.org/resources/symposium/>

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, September 10 for the October newsletter, etc. Please submit items to newsletter@cnpsd.org

CNPS-SD Activities Calendar September 2020

9/1-15: Plant Sale Ordering, p.1

9/2: Board Meeting via Zoom, p.2

9/9: Garden Committee Meeting via Zoom, p. 2

MEMBERSHIP APPLICATION

<https://www.cnps.org/membership>

___ Student/Limited Income \$25; ___ Individual \$50; ___ Plant Lover \$120; ___ Supporter \$500; ___ Patron \$1,000; ___ Benefactor \$2,500; ___ Perennial Monthly Sustainer Memberships starting at \$5/mo provide much needed predictable income for our programs. Your indicated gift will be automatically repeated each month. Pls see <https://www.cnps.org/membership> to sign up for this membership level.

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September 2020 Newsletter

Dedicated to the preservation of the California native flora
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