Obispoensis

Newsletter of the San Luis Obispo Chapter of the California Native Plant Society

May 2020 Electronic Version

A Message from the President

Out of concern for the health and safety of our members and dedicated volunteers, the Board of the San Luis Obispo Chapter of CNPS has had to make some heart-wrenching decisions. As you know, in response to the Covid-19 virus pandemic, state and local agencies have ordered all individuals to stay home except as needed to maintain essential needs. We do not know exactly how long this will last. Of course, this makes it difficult for us to count stamens and pistils together and share in person the "epic" flower displays we've come to know and love. We will, however, come through this. We encourage you to visit native habitats within walking distance of your home (while maintaining physical distancing, of course.)

In the meantime, though, we have decided the following:

- All field trips, including the Santa Rita Road bike ride scheduled for April 19, are cancelled;
- May 7 General Membership meeting is cancelled;
- May 16 Plant Identification Workshop has been cancelled; we hope to reschedule it in spring, 2021; and
- June 4 General Membership meeting is cancelled; we hope to bring you an alternative format with possible virtual reports from our McLeod scholars.

We are still working out the details of our coordination with UC Berkeley on the 2020 Sudden Oak Death Blitz scheduled for May 15-18 to ensure it can be conducted consistent with social distancing guidelines. We will keep you informed as details emerge.

As we move into the summer months, we will revisit our meeting schedule; perhaps we will be able to hold an August general membership meeting as we did last year, but at this time we just don't know. This will be a "wait and see" event.

To those who worked so hard on setting up these activities: especially Mindy Trask, Kristen Nelson, Melinda Elster, Gage Willey, Judi Young, our speakers who had to change their plans, Bill Waycott, and so many others. I can't name them all, we thank you for all your time and effort.

We are learning new things! The Board met recently via Zoom videoconference, and we have plans to use this venue again in three weeks or so to see how things have progressed. We also plan to use this tool for the Board meeting currently scheduled for May 12. Who knows, perhaps this can become a tool for our general meetings also.

We want to stay in touch with you, and we want to hear from you. Our newsletter will continue to be produced electronically, and we hope to reformat it and produce it more frequently, with exciting tidbits for the stay-at-home nature of our lives these days. There will no longer be a mailed hard copy. Our newsletter editor, David Chipping, dchippin@calpoly.edu, is open to receiving contributed content from members, as well as ideas about desired content. If you have a special story, article, or photo, or just want to say hello, please drop us a line or check in on our Facebook page. Stay safe, and I hope we all stay healthy.

Melissa Mooney

President, SLO Chapter CNPS

. . . . AND A NOTE FROM THE EDITOR

We have been forced to move to this electronic version of the newsletter ealier than anticipated due to closure of our printer.

We will produce this periodically until the 2020-2021 season begins, but content will lack the usual information on field trips, speakers, and workshops until normal life resumes. I will try to fill it with interesting content, and will welcome any content that you can send to my email (dchippin@calpoly.edu). This time we tried to find a few home projects, and will welcome any ideas you might have.

David Chipping

A Google Earth-based virtual field trip on Highway 58

A Time-killing Activity by David Chipping

Perhaps the most painful part of being shut up at home during spring is the loss of field trips, so I have tried to provide a poor substitute that reconstructs some things a field trip leader might tell you. To partake you need to download the free Google Earth app. If you enter the coordinates into the search window (top left), you will be carried to an aerial view of the area with a thumbtack over the actual coordinate point. To get to 'Street View' drag your cursor to the right side of the screen, where controls will appear. The 'Little Man' icon should be click-dragged to the thumbtack, and a blue line should appear down the road (showing it has street view available). Place cursor over blue line and thumbtack, and release mouse button. The screen will now show the street level view after a slight delay, and you can 'turn around' using the icon on the upper right corner of the screen. If the street view is distorted, click "Exit Street View" and try diving in again. Always exit street view before entering new coordinates. The coordinates beneath your cursor can be seen in the lower right of the screen, along with the topographic elevation, and also the altitude of the observer's virtual eye.

Coordinates 35.421044-120.549849 Calf Canyon west of Highway 229

This site shows the effects of hillside slope aspect on vegetation. Looking north, chamise chaparral tops the south-facing hill, while buckwheat introduced for the California Aqueduct lies at the base of the slope. A control structure of the aqueduct can be seen. Even closer is the creek, with cottonwood and willow trees. Turning to the west, the dense oak-dominated vegetation of the north facing slope, still green with spring grasses, shows how greater shade produces soils that are thicker and wetter than those on the barer slopes across the creek. The tree-create shade and a positive feedback loop toward thicker soils and retained water. On the other side of the creek, the small cover enables increased erosion and a negative feedback loop toward thicker soils and retained water.

Coordinates 35.432353-120.536725 Calf Canyon east of Highway 229

We usually stop at this site to look at *Lupinus concinnus*, seen in the view to north in the outcrop of weathered granite. The chaparral in the view to the west is dominated by chamise, and had burned completely twice in the last 50 years, illustrating the regenerative ability of fire-adapted plant communities. Here chaparral occurs on both sides of the road as the road trends N-S.

Lupinus concinnus *photo: David Chipping*

Coordinates 35.437238-120.502462 HuerHuero Creek Bridge

This shows real wildflowers! A distance carpet of *Lupinus nanus* can be seen across the creek when facing south. Oh sigh……

Coordinates 35.463010-120.384338 about a mile west of the La Panza Rd. junction.

Looking to the NE, you will see south-facing bare hills underlain by shales of the Monterey Formation. Looking south you will see distant dark green hills of chaparral=covered granite. The immediate area is underlin by Miocene marine sediments with thick soils supporting valley oak.

Coordinates 35.465638-120.374646 about just east of the La Panza Rd. junction.

This shows the same ridge seen at the last site, but on its north side which supports a dense woodland of juniper and scrub oak Yet again, slope aspect controls the vegetation. If you spin around you will see thin shale beds of the Monterey Formation, where we sometimes stop to look for fossil fish scales.

Coordinates 35.458480-120.334799 at Shell Creek.

So, if you were the Google Earth driver, you would not have seen any wildflowers either. This was March 2012, and I guess flowering was yet to be that year. Note the fine old Valley oak trees on the alluvial flatlands. The hillsides are mostly Blue oak. But, again… sigh….

Coordinates 35.410377-120.281900 west of Red Hill Road.

The flat-topped hill seen to the east is a remnant of a once-extensive alluvial fan surface that sloped gradually northward toward the Estrella Valley and Hwy 46. This has been dissected by drainages such as those seen on both sides of the roads. Trees are Grey pine and Blue oak.

Coordinates 35.403684-120.279225 at Red Hill Road.

We are now sitting on the flat surface of the old alluvial fan. The ancient soils are highly weathered and oxidized to a red coloration, and the poor nutrient supply has resulted in some adapted and very rare plants. The pipe fence you can see when you look south was built by USFS after pressure from our chapter to keep OHVs off the rare plant habitat, Two plants, both listed as 1B.1 found in thislocation are shown below.

Calycadenia villosa *photo: David Chipping*

Hooveria purpurea var. reductum *photo: David Chipping*

Coordinates 35.374533-120.121036 viewed from an eye altitude of 20,000 feet. Hey folks.. how can a geologist resist a sexy syncline?

Coordinates 35.307662-119.944370 Belmont Trails vernal pools seem from an eye altitude of 3,000 feet.

Every CNPS field trip to the Carrizo Plain stops here. The dirt roads are not travelled by Google Earth's vehicles, so there is no street view. The vernal pools have very salty soils or 'slicks' that are clearly visible, and make Google Earth a great tool for locating these rare features. Have a little fun and poke around to see how many pools you can find.

STUCK INDOORS WITH YOUR KIDS FOR WEEKS ON END? LOOKING FOR THINGS TO DO? TEACH THEM TO COMPOST KITCHEN WASTE BEFORE CONSIDERING COMPOSTING THE KIDS..... ONE OF MANY WEB SITES THAT HAVE PLANT RELATED ACTIVITIES THAT WE HAVE FOUND.

COMPOSTING SITES:

https://www.epa.gov/recycle/composting-home

https://www.calrecycle.ca.gov/organics/homecompost

https://lifestyle.howstuffworks.com/crafts/seasonal/garden-activities-for-kids.htm

https://lifestyle.howstuffworks.com/crafts/seasonal/garden-activities-for-kids4.htm (DHC press)

https://www.nrdc.org/stories/composting-way-easier-you-think?gclid=CjwKCAjwvZv0BRA8EiwAD9T2VcNvuqVEHOk4fthd4ruS7k2abJMiwrJgsiYP8Xx21YvburIdxbXWUxoC_usQAvD_BwE

Why did the other flowers laugh at the Milk Thistle when it was bent over by the wind? Because of its Silybum

IF THE CORONAVIRUS WASN'T OOKY ENOUGH,,,,,THERE ARE 200 TRILLION BACTERIA, FUNGI AND VIRUSES IN AND ON YOUR BODY RIGHT NOW! THERE ARE FOUR POUNDS OF THEM IN YOUR GUT. YOUR SKIN HAS A MILLION MICROBES PER SQUARE CENTIMETER. THERE ARE 10 MILLION VIRUSES IN EVERY DROP OF SURFACE SEAWATER, MOSTLY PHAGES ATTACKING BACTERIA.

MORE PLANT-RELATED ACTIVITY IDEAS

POLLINATOR CENSUS: If you can find some flowers, watch them for an extended period looking for any insects, from gnats to dragonflies, that might seem interested. If you have a camera, photograph each visitor, and get information on time of day, duration of visit etc. even if you don't have a clue about what type of insect you are looking at. Then try to fathom what those insects are.

TIME LAPSE PHOTOGRAPHY. Take a series of photos of the same object. Build a stand for your camera so that it is in the same position for each shot. A picture every 15 minutes over the good part of a day might make a little movie of a flower opening when you string the photos together.

TEAR A PLANT APART AND IDENTIFY THE PARTS: This is standard 'introduction to botany' stuff, but if you don't know your petals from your sepals, this is a great exercise. Do it for more than one species for comparison. See the little article on the ABC Theory in this edition.

ANOTHER PLACE TO LOOK: https://lifestyle.howstuffworks.com/crafts/seasonal/garden-activities-for-kids.htm

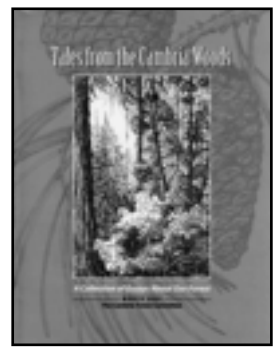
Is Your Brain slowly forgetting all that plant stuff you once know as it fills with social media detritus? Take some plant related quizes.

https://www.funtrivia.com/playquiz/quiz289779212cef0.html
https://www.laspilitas.com/classes/quizzes/native-plant-quiz.htm
http://tchester.org/plants/lists/interesting_facts.html
https://www.vcstar.com/story/news/special-reports/outdoors/2019/04/06/think-you-know-california-flowers-take-poppy-pop-quiz/3384865002/

Watch Nikki Nedeff's recorded CNPS Talk to Santa Clara Valley Chapter on the Monterey Pine forests

Search YouTube for "The Monterey Pine Forest Nikki Nedeff" to find the video of Nikki Nedeff's recorded .

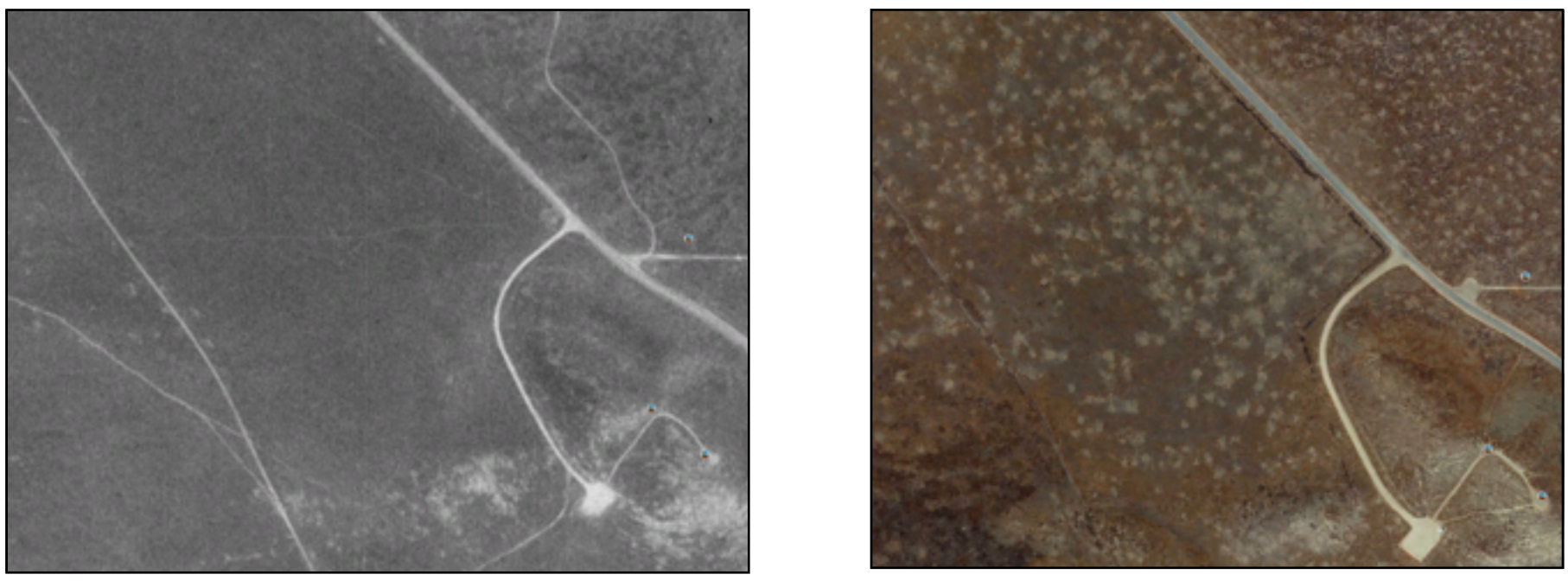
CAMBRIA FOREST COMMITTEE'S VERY INTERESTING WEB SITE & "TALES OF THE CAMBRIA WOODS"



Many authors contributed to this compendium of small nature stories .It can be downloaded from http://cambriaforestcommittee.org/documents-2/

It is a great read for the layperson about the pine forest in Cambria, a subject in which CNPS is engaged concerning the fire-related vegetation management programs.

KANGAROO RATS REPAVE AND RESTORE ABANDONED WHEAT FIELDS



1994 (Left) and 2018 (Right) showing K-Rat mounds establishing in old wheat fields northwest of Lookout Hill in Carrizo Plain N.M.

Those cute little animals move a lot of soil. This is important in reestablishing soil profiles that were destroyed by the plough when the area was cropped for wheat. The rats also mix organic material deep into the soil and create microhydrology that enables different plants such as *Phacelia* to grown on the mounds, compared to the spaces between the mounds.

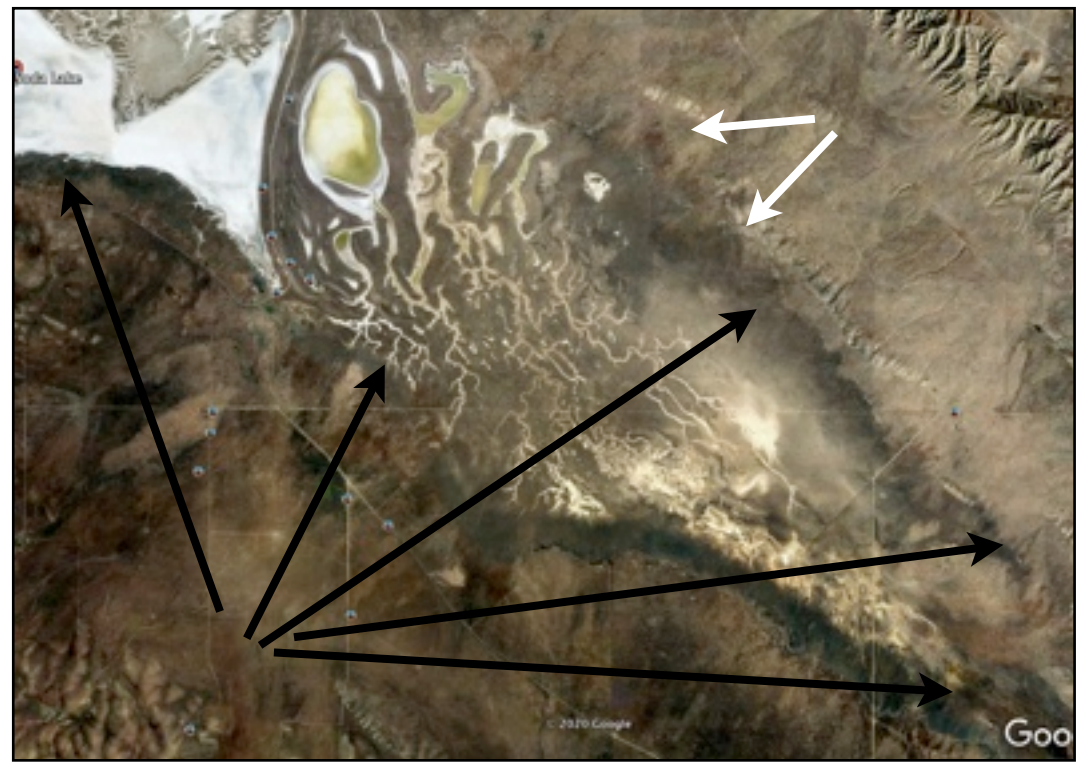
A ONCE LARGER SODA LAKE?...THE *ALLENROLFEA* LINE

It has long been known that California was much wetter during much of the Pleistocene, with large lakes thoughout the Basin and Range, and also in the Central Valley. There has been some research on ancient Soda Lake's water levels, but ancient shorelines cannot be defined with certainty, and there are no topographic features such as abandoned beaches.

There is, however, a clue to at least one sustained higher water level for the lake, which can be seen in Google Earth as the "*Allenrolfea* Line". If you walk to the lake on the boardwalk opposite Lookout Hill, grassland passes into *Atriplex* saltbush scrub and then, right on the shoreline, to a narrow zone of *Allenrolfea occidentalis*, or Iodine bush. This species requires moist, hypersaline soils. The small fleshy leaves are reduced to scales, and are shed during times of drought. In aerial photographs the *Allenrolfea* zone appears dark in shade relative to the *Atriplex* scrub that occurs a short distance further from the lake shore.

It is likely that zonation between *Atriplex* and *Allenrolfia* is determined by the subsurface hydrology in which relatively fresh groundwater derived from rain perches above denser, saline groundwater derived from the lake. This may also be somewhat controlled by an interface from buried lake-bed clays overlain by sediment derived from upslope. Whatever the reason, the *Allenrolfia* is persistent.

The Google Earth derived photo shows the zone of dark vegetation extending to the southeast to a point well north of the KCL Campground. This also marks a significant color change in soil reflectivity, with paler soils enclosed within the *Allenrolfia* zone than those seen outside the zone. The latter are the lower limits of alluvial fans derived from hills on both sides of the valley. The alluvial fan/ old lake floor sediment interface would offer the same hydrology described above.



Top Photo: *Allenrolfea occidentalis* Photo: David Chipping
Bottom Photo: Google Earth photo of the south end of Soda Lake. The black arrows point to the *Allenrolfea* Zone. The white arrows point to topographic features suggested by others as traces of an old shoreline

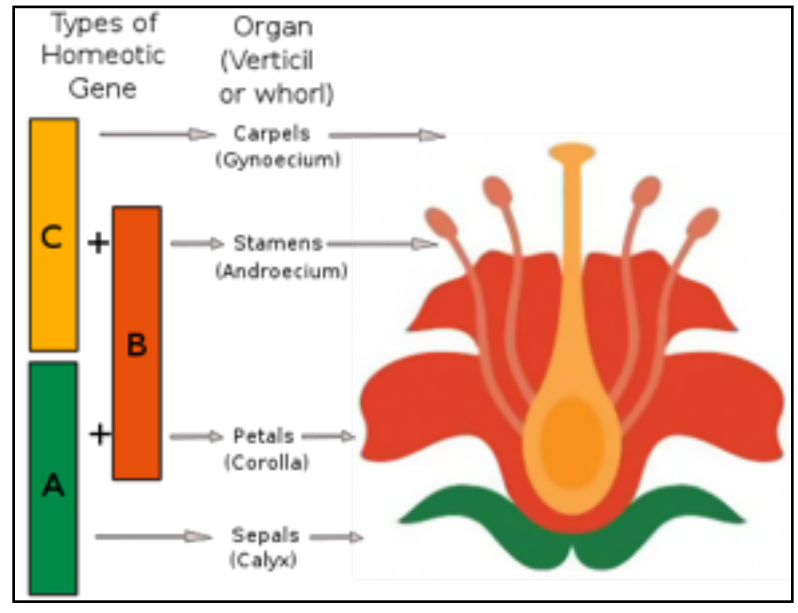
---

DANCE OF THE GENES: THE ABC MODEL OF FLOWER DEVELOPMENT

The ABC theory is that the growing tip of a future flower stem is a mass of undifferentiated reproducing cells (kinda like stem cells). When a signal is received that the plant is ready to set flower, three genes (A, B, and C) are activated. Gene A starts of the process, creating cells to make the outermost part of the flower, the sepals. Gene A is joined by Gene B to create the petals. Gene A then turns off, and Gene C turns on, working with Gene B to create stamens. Gene B then turns off, leaving Gene C to create the carpels.

More recently an ABCDE model has been proposed where D and E are genes that modify the carpels and ovule in certain species.

Information and diagram derived from Wikipedia



A MODEST LITTLE PICKLEWEED AND ITS BIG RELATIVES

It is amazing how much our views of the pickleweed marsh on Morro Bay have changed over time. Hoover, in his 1970 Flora of San Luis Obispo County recognized *Salicornia virginica* and *Salicornia subterminalis*. Since then, supposed *S. virginica* populations on the west coast are now identified as *Salicornia pacifica*. *Salicornia subterminalis* was differentiated from *S. pacifica* by having its tiny flowers below, but not at, the tip of the fleshy stem, but other features have resulted in a change of genus to *Arthrocnemum terminale*. The two genera, *Salicornia* and *Arthrocnemum*, were originally differentiated by Moquin in 1840 on the basis of perennial vs annual, so we start off on the right foot as both of our species are perennials. It seems that today a key difference between the genera is associated with the seeds, but in the field Dr. Keil has noted a grey-green color for *Salicornia* and a green to yellow-green color for *Arthrocnemum*, as well as the placement of the flowers on the stem.

Arthrocnemum terminale (bright green, right) and *Salicornia pacifica* (grey-green, left) Photo: David Chipping .

Photo: David Chipping .

Hiding in the perennial mat of pickleweed is a tiny relative, an annual plant called *Salicornia bigelovii*. (photo, left) There is one population just off the boardwalk at the Morro Bay marina that takes advantage of a thinner cover of the perennial plants adjacent to narrow sandy areas near the high tide line. It is very small and pale yellow-green. It is like somebody clipped off the stem tops of the perennial plants and stuck them in the muddy sand. The plants don't stay around too long, and I have never caught them in flower.

Photo: David Chipping .

In case you were thinking that *Salicornia* does not flower, as it really can't be seen, you have to get up close. The right photo above shows the stamens poking out of internodes from the end of the stem, so this is *Salicornia pacifica*.

STAYING CONNECTED- CHAPTER SPEAKER PROGRAMS

Greetings! As I write this, it's already mid-April and a combination of atypical weather and isolation orders have resulted in one of the more unusual starts to the spring season that I can remember. Following the recent difficult decision by the Board to cancel or postpone all organized events through the end of spring, I wanted to take a moment to re-connect and discuss what we ARE doing - and different ways to stay connected. Now is the time for social media and technology to shine! I would like to recognize and appreciate the efforts by many CNPS chapters, public gardens, and other organizations who have already made online content available for all to enjoy. I am sure that many of you have already participated in web-hosted presentations and discussions, and there are so many more becoming available each week. Since you can join in from anywhere, web-based presentations are a great opportunity to connect with members from other chapters and hear from experts across the state.

I was so excited for our lineup of spring speakers and workshops, and I am currently working with each of the presenters to organize upcoming talks, trainings, and articles that can be shared digitally. At this time, I would like to recognize our originally planned May presenter – Cynthia Powell, Executive Director of Calflora – and encourage a little digital interaction through the use of Calflora.

Calflora's plant database hosts over 2 million plant occurrences, some of which come directly from SLO CNPS members. Cynthia was going to discuss new Calflora tools available to users, and then lead a hike to demonstrate use of some of these tools in the field. Although it is unfortunate that we cannot host Cynthia in person at this time, all is not lost! Take this opportunity to familiarize yourself with the resources and tools offered by Calflora and take yourself on a hike! This link (https://myemail.constantcontact.com/Calflora---COVID-19.html?soid=1101318247526&aid=aRiJ11Z0vBQ) is a good starting place. Please stay tuned for more specific content on opportunities for digital engagement soon.

Lastly, I want to note that we are taking this time to ensure a smooth and exciting transition back into normally scheduled programming, once it is safe to do so! I know this a resilient and enthusiastic group, and I sincerely hope that everyone is finding time to enjoy the spring – whether it be in your garden, on a stroll through your neighborhood, or a drive through Carrizo. I look forward to frolicking with you soon.

Kristen Nelson

RETAIL SALES POSITION OPEN

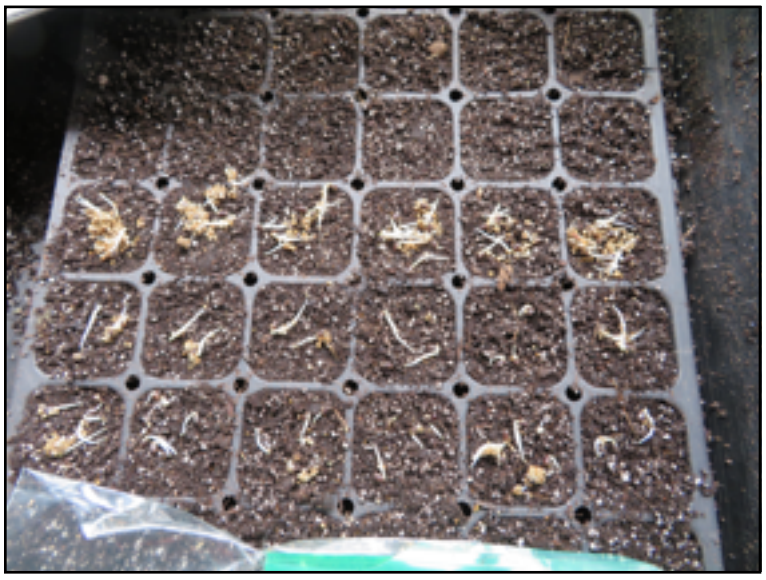
Do you love books? How about selecting books that are on our Sales Table at most meetings and some events? If so, we would be excited to hear that you would be interested in becoming our Retail Sales Manager. If you've spent time gazing at the sales table, you know how wonderful the selection is. There are volunteers who help to staff the table, so help is always available. This is an opportunity to be creative, try new titles and stock the reliable titles, select Tshirt colors and share your enthusiasm for books with the folks that browse the table. If you are interested or have questions, contact Melissa Mooney. Stop by the sales table at the Cambria Wildflower show on April 25th or 26th and chat with the people who are working the table for that event.

THINKING SEEDS

What an interesting year we have had and, as I write this, it's only April. We obviously don't know what the future will bring but I am hoping it will bring a seed exchange in October. In late February I was very depressed about the lack of moisture in the ground. January and February had been so dry. My wildflowers were shriveling and I suspected I would have little seed to share. It was difficult to keep moisture in my seed trays and I had lots that did not germinate. Then the rains came and many of my plants bounced back and some seeds germinated. Now I am hopeful that I will have lots of seed. The challenge these days is that we are confined to our homes and yards. But perhaps that will give our members more time to closely watch their plants. If you are motivated, please watch and collect seeds.

Many of you know that for years I have been a volunteer at the San Luis Obispo Botanical Garden. My role as a maintenance person gives me a great opportunity to observe plants. I have been given permission to collect seeds there. Unfortunately now Rancho El Chorro is closed and the botanic garden crew is limited to those who are essential. Pulling weeds is not really essential at this point. I am hoping that I will be allowed to go in intermittently though and, if I am, I will be keeping an eye out for seeds. If the COVID19 case load in the homeless does not increase dramatically perhaps the garden will reopen.

Last year I collected seed from many of the low growing *Ceanothus* in that garden, cultivars like 'Heart's Desire', 'Anchor Bay' and "Gualala'. I have had success with *Ceanothus* in the past but had always tried the larger ones. This time I was just curious. In January I gave the seeds a hot water treatment and put them in the refrigerator. On March 26 I removed the seeds which had been hot water treated and cold stratified. Most of the seeds had germinated and had radicles, many of them almost an inch long. I guess I should have checked them earlier. But I have found that if I handle them very carefully they will grow. And now, two weeks later, I have a tray full of little Ceanothus.



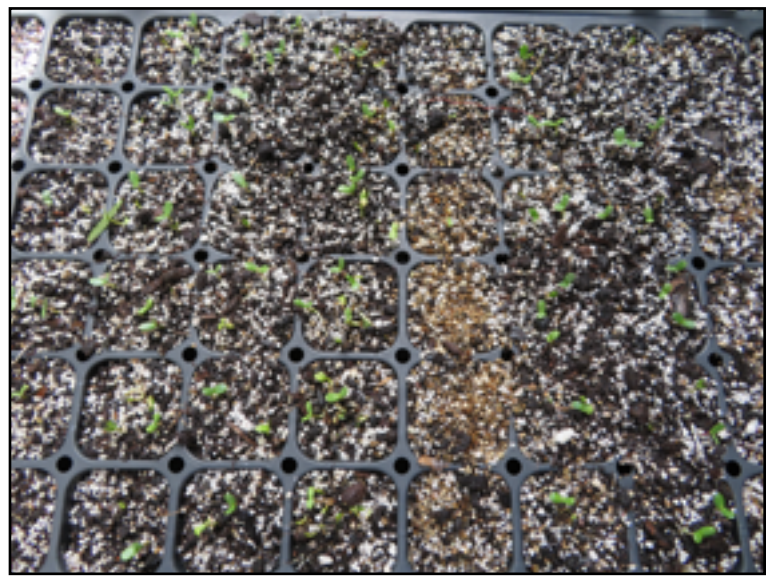


Photo: Marti Rutherford

I know that these little seedlings will be displaying genetic diversity. They will not necessarily be like the mother plant. The botanic garden has many different kinds of *Ceanothus* and cross pollination is very likely. That is part of the fun of growing from seeds. Very few of the seeds I collect from the botanic garden, or from any garden, would be considered pure. I would need to wild collect for that from a population that was separate from others. I don't have permission to do that. Collecting from the wild has all sorts of considerations and I would not do that to obtain seed for our seed exchange. So our seed exchange would not be considered a source for any restoration work. But it certainly can be a source for our gardens. And who knows, perhaps at some point we will come up with an outstanding plant that we decide should be propagated from cuttings and will be the next big thing.

Stay safe, stay healthy, and maybe we will see each other at the seed exchange. **Marti Rutherford**

THE GARDEN CORNER

The plans for a beautiful garden, as with most plans in life, can start with the same prinicple. We refer to them as 'building blocks'. Building blocks of the garden can be hardscape, like walkways, retaining walls and dry stream beds. But in most cases they are plants.

I would have to pick *Ceanothus*, *Manzanita* and *Salvia* (sage), when it comes to my favorite building blocks. If you look at our surrounding hills, you will undoubtedly see one of those species growing there. Why is this important? The likelihood of your success in the garden is by observing the native plants which surround you. Yes, it's true you can look to other Mediterranean climates to select plants. But here, on the central coast of California, many of those Mediterranean species are now the main reason urban areas that are prone to fire have suffered. I'm thinking mainly of the Oakland Hills firestorm (of 1,520 acres in 1991) and the mass planting of eucalyptus that fueled it.

Returning to the building blocks of a garden, small shrubs are much more fire safe then tall trees. Hence, the three aforementioned species, *Ceanothus*, *Manzanita* and *Salvi*a (sage), would be much safer because they are smaller in size. As my high school teacher would say 'be that as it may', with the rains still blessing us. Its not too late to buy some shrubs and plant them in the garden.

Follow the usual rules. Dig a hole and fill it with water, having the water thoroughly soak through. Place the plant in the hole, filling around the plant with existing soil, using no amendments, and making a basin to hold water around the plant. Water three times, waiting for the water to penetrate in between refilling the basin. For the first summer, water bi-weekly. If you have any questions, contact me at gritlys@gmail.com.

JOHN NOWAK

Oak Mistletoe *Phoradendron villosum*
Photo David Chipping

A CITIZEN SCIENCE MISTLETOE PROJECT

Besides the Sudden Oak Death Project, you can also help with this oak mistletoe study. Ella Abelli-Amen, CNPS McLeod scholarship recipient and Cal Poly student, is studying an interesting pattern of mistletoe occurrences on coast live oak (*Quercus agrifolia)*, blue oak (*Q. douglasii)*, and valley oak (*Q. lobata)*. You can help her with her research while you are surveying and botanizing in the County by looking for and recording any stand of oaks where mistletoe is growing on all three species in the same stand. If you find this, please record the location, snap a photo if possible, and send the info to Ella at: ellaabelliamen@gmail.com.

Mistletoe on Blue Oak, Garcia Portrero
Photo David Chipping

Editor's note: Coronavirus warning to mistletoe seekers. While standing under oak trees, absolutely no kissing is allowed

Greenspace in Cambria has been encoraging homeowners to plant young Monterey pine trees. The tree is short-lived and fire adapted, and the average age of the pines in the Cambria forest is about 45 years. The oldest trees are around 100 years, but typical life span is 70-80 years. As stand-replacement fire is not an option, tree planting will be the best way to sustain the forest.

Sudden Oak Blitz - 2020 Style

Looking for a way to exercise outdoors safely in this time of Covid-19 virus and contribute to studies of our local natural community? **Consider participating as a citizen scientist on May 16, 17 or 18 in the 2020 Sudden Oak Death Blitz** in its new virtual-training format. The process requires collecting California bay laurel or tanoak leaves (not oak leaves), filling out a survey form, careful recording of sampling location, and submitting all samples in envelopes for testing by University of California researchers. All sampling materials are provided at the pickup locations listed below.

Please note that sanitary precautions are incorporated into the entire procedure with no person-to-person contacts required in either obtaining or returning sampling materials, or in collection of field samples. Extra protection measures will be provided at the two pickup/drop-off locations. If you follow the guidelines specified in the links, this activity complies with virus-related restrictions of the State of California and San Luis Obispo County. Be sure to stay up-to-date with any future changes to Covid-19 restrictions.

Go to this link to register for the 2020 SOD Blitz and follow the steps for participating this year: http://ucanr.edu/2020sodblitztraining.

Two locations are provided for pick up and drop off of sampling packets:

- **San Luis Obispo Agriculture Department in San Luis Obispo - 2156 Sierra Way # A, San Luis Obispo, CA 93401. Drive around to the parking lot in the back. Look for plastic bin near back door.**
- **San Luis Obispo Agriculture Department in Templeton - 350 N Main St, Templeton, CA 93465. Bin will be located outside by the front doors.**

Yellow/ black/ dead tissue symptomatic banding on California Bay leaf: Photo U.C. California

Sudden Oak Death (SOD) is a fungus-like tree disease that has killed millions of oak and tanoak trees in California and Oregon since it was accidentally introduced to natural forests. To date, SOD has not been detected in trees in San Luis Obispo County but has been killing trees in all coastal California counties to the north. Last year, SOD was detected in three SLO streams so 2020 is an especially important year to detect whether the disease has taken a foothold in our local SLO forests. Early detection may allow proactive measures to stop it from spreading farther into SLO County.

If you've participated in the SOD Blitz before, the new process will be familiar, however, you will use website resources to remotely register, take the annual training, and sign up for a survey route. Survey packets (including symptom recognition photographs, survey forms, instructions, and sampling envelopes) will be provided in outdoor bins at the two locationS noted above on the day before and the days of the survey. Completed packets are dropped off at the same locations. All complete SOD Blitz survey packets must be submitted no later than 10am on Tuesday May 19th.

We highly recommend that anyone who participated in previous SOD Blitzes in SLO County resurvey the same route in 2020 that you surveyed in 2018 or 2019; make sure to sign up for your survey route through the link provided at the website above. Repeat sampling is important to detect recent changes and will also reduce the chances that the same locations are accidentally oversampled in this year of online planning. If you are a private property owner, or have the permission of the owner, we encourage samples collected on private properties with bay or tanoak trees.

If you have not participated in the SOD Blitz before, you will find everything you need to participate this year by starting at the link above and following the additional links it provides. We apologize that the remote process requires multiples steps but we believe you will find the 15-minute training video at one of those links especially helpful. The best locations in San Luis Obispo County for finding bay trees and therefore sampling for the SOD Blitz tend to be west of Highway 101, and maps showing bay and tanoak plant associations and prior sampling locations are provided in links as you work through the registration process.

If you have any questions about the SOD Blitz in San Luis Obispo County, contact Cindy Roessler at skaaantics@yahoo.com or Kim Corella at kim.corella@fire.ca.gov. General information on Sudden Oak Death can be found at suddenoakdeath.org .

End Note: appropriately about toilet paper

• THE AVERAGE AMERICAN USES 23.6 ROLLS OF TOILET PAPER PER YEAR. • 95% OF THE "PLUSH" TOILET PAPER COMES FROM VIRGIN TIMBER * MUCH OF THE TIMBER COMES FROM CANADA'S BOREAL FORESTS • IF AMERICANS SUBSTITUTED JUST ONE ROLL OF RECYCLED TOILET PAPER FOR PLUSH, WE WOULD SAVE UP TO 423,000 TREES • 100% RECYCLED TOILET PAPER (us.whogivesacrap.org, AND BAMBOO-DERIVED TOILET PAPER (reelpaper.com) ARE POSSIBLE SOLUTIONS
JUST THINK HOW MANY TREES YOU WOULD SAVE WITH A BIDET

THE GOOD PEOPLE WHO MAKE THE CHAPTER 'HAPPEN' AND HOW TO FIND THEM

President
Melissa Mooney
mjmoon@charter.net

Vice President
Kristen Nelson
kristenkmn@gmail.com

Secretary
Cindy Roessler
skantics@gmail.com

Corresponding Secretary
Marti Rutherford
slomire@msn.com

Treasurer
David Krause (805)
927-5182
dkincmbria@aol.com

Chapter Council Rep.
Melissa Mooney
mjmoon@charter.net

Chapter Wholesale Contact
Linda Chipping (805)
528-0914
lindachipping@yahoo.com

Conservation
David Chipping
(805) 528-0914
dchippin@calpoly.edu

Education
Susi Bernstein (805)
481-4692
fiddle58@att.net

Field Trips
Bill Waycott (805) 459-2103
bill.waycott@gmail.com

Retail Sales Manager
OPEN
YOUR NAME HERE?

Historian
Dirk R. Walters (805) 543-7051
drwalters@charter.net

Invasive Plants Control
Mark Skinner
mskinner@coastalrcd.org

Membership
LynneDee Althouse
LynneDee@althouseandmeade.com

Rare Plant Coordinator
John Chesnut (805)
528-0833
jchesnut@slonet.org

Legislation
David Chipping (805)
528-0914
dchippin@calpoly.edu

Newsletter Editor
David Chipping (805)
528-0914
dchippin@calpoly.edu

Photography
Photo Curator
David Chipping (805)
528-0914
dchippin@calpoly.edu

Horticulture & Plant Sales
John Nowak (805) 674-2034
gritlys@gmail.com

Suzette Girouard
(805) 801-4806
suzette.girouard@gmail.com

John Doyle (805) 748-7190
doyle5515@sbcglobal.net

Publicity & Web Master
Judi Young
judi@judiyoung.com

Hospitality
OPEN:
YOUR NAME HERE?

Chapter Publications
Matt Ritter
mritter@calpoly.edu

WE ALWAYS NEED PEOPLE TO HELP OUT. OUR MISSION IS VITAL AND OUR FLORA IS AT RISK

CNPS SLO Chapter gratefully acknowledges French Hospital and the Copelands Health Education Pavilion for the use of their facilities for our Board meetings.

Protecting California's Native Flora since 1965

The California Native Plant Society is a statewide non-profit organization of amateurs and professionals with a common interest in California's plants. The mission of the Society is to increase understanding and appreciation of California's native plants and to preserve them in their natural habitat through scientific activities, education and conservation. Membership is open to all. Membership includes the journal, *Fremontia;* the quarterly *Flora*, which gives statewide news and announcements of the activities and conservation issues, and the chapter newsletter, *Obispoensis*.

San Luis Obispo Chapter of the
California Native Plant Society
P.O. Box 784
San Luis Obispo, CA 93406

Print, Clip & Mail

Join Today!

- □ *Student / Limited Income $25*
- □ *Individual $50*
- □ *Plant Lover $120*
- □ *Supporter $500*
- □ *Patron $1,000*
- □ *Benefactor $2,500*

I wish to affiliate with the San Luis Obispo Chapter

Inquiries:
Phone: (916) 447-2677 Fax: (916) 447-2727 (State)
e-mail: cnps@cnps.org (State)

Websites:
Websites: www.cnps.org (State) & www.cnpsslo.org (Local)

□ New □ Renewal □ Gift

Name _____

Address _____

City _____

State _____ Zip Code _____

Telephone _____

E-mail_____* NEEDED FOR NEWSLETTER

Please make your check payable to CNPS and mail to:
attn Membership, California Native Plant Society, 2707 K Street, Suite 1, Sacramento, CA 95816-5130

GIFT MEMBERSHIP RECIPIENT

Name _____

Address _____

City _____

State _____ Zip Code _____

Do you want CNPS to send gift recipient a postcard identifying you as giftor □ Yes □ No