ispoensis

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



Saltgrass (Distichlis spicata)

It's getting harder and harder to find a fall plant in flower or fruit to profile. So, I'm going to wander off into the salt marsh (or the alkali flats of the Carrizo Plain). The chosen plant is quite common in both these habitats, but I suspect that most don't even notice it, or if they do, they ignore it as uninteresting. I place myself in the last category or at least I did until I did a little research on the internet. The plant is 'common' salt grass. It is also known as seashore salt grass, desert salt grass, interior salt grass, alkali salt grass, desert spike grass, or more commonly just plain salt grass (*Distichlis spicata*). As the common name implies, it is a member of the grass family (Poaceae) and this grass grows in areas with salty or alkaline soils. Thus, its common name refers to its preferred habitat or its habit of excreting salt water onto leaf and stem surfaces. When the salt water evaporates, it leaves behind salt crystals. It appears to me that salt grass also does best where the salty soils are periodically wet. So, I would expect to find it in coastal salt marshes and the edges of interior salt flats or in any situation where evaporation exceeds precipitation. Saltgrass is native to North America and can be found growing in practically every state in the lower 48 except the usually well-watered, land-locked Midwest states such as Michigan, Indiana, Kentucky, Tennessee, West Virginia, and Arkansas. In these areas, there is enough rain or snow to leach soil surface layers free of salt buildup. It has also been introduced into every continent except Antarctica.

The genus name (*Distichlis*) refers to its characteristic leaf arrangement. This accompanying illustration is a photo scan of some salt grass shoots. Even though the shoots were placed on a scanner with the lid closed, notice that the leaves don't appear twisted in any way. That is because all the leaves arise from the stem in a single plane, and that is precisely what a *Distichlis* leaf arrangement is. Like most salt marsh plants, salt grass is a perennial. Annual plants are at a disadvantage because they must produce enough seed every year to assure that at least one of its seeds finds a suitable open site in which to germinate and grow into maturity. In hard-to-grow areas like salt marshes, open sites are extremely rare and short-lived. This is because competing species also live for several to many years (perennial) and thus can hold a site for a long time by simply occupying it. Consequently, open sites are extremely rare. Salt marsh plants also tend to expand laterally via vegetative means which takes less energy and is more certain than sexual reproduction. This means that the rare open site will likely be filled by neighbors expanding vegetatively into it rather than by a seedling establishment. Saltgrass expands via stout horizontally growing underground stems (rhizomes) that have sharp, hard tips. Because it spreads from below the soil surface and its aerial shoots are thin and grass-like, it can often be found sticking up among shoots of other salt marsh species. Where it lacks competition, salt grass forms a solid stand that has been called turf. Where this occurs, the plant has been used by grazing animals, but mostly only after other more palatable forage has been eaten. Because it is salt tolerant and easily grown, it has also been used to reclaim pastures that must be watered using salt water in the interior Southwest U.S.

Saltgrass does produce a flower, fruits, and seeds. The specific epithet (*spicata*) refers to the fact that the spikelets (clusters of tiny flowers (florets) are borne directly on a central axis. However, not all its spikelets can produce seed. Only the female or pistillate flowers produce seeds and these are borne only on separate female plants. The male flowers (staminate) are produced on male plants which produce only the pollen which then produce the sperm. The reproductive shoot (the second one from the left on the cover) that bears reproductive structures (spikelets) is female. This can be discerned in the photo-scan because the spikelets are buried among the terminal leaves. Male bearing spikelets are usually borne on a longish stalk which raises them high above the foliage. This exalted placement of the pollen-bearing flowers allows the wind to spread the pollen over a wider area. One other interesting factoid that is mentioned in several internet postings, and is based primarily on the work of Sarah Eppley and associates in California is that male and female plants have slightly different distributions within the same salt marsh or flat. Female plants tend to be lower or closer to the water than male plants. In some plants (and a few animals such as crocodiles.) sex is determined by the environment but this is not the case in salt grass. DNA studies, as well as reciprocal transplant studies, have shown that sex is determined genetically. Garden studies have shown that female plants can tolerate longer immersion in salt water possibly because they attract symbiotic (mycorrhizal) fungi to attach to their roots. The fungi would potentially protect the female plants by providing extra nutrients. Also, growing female salt grass plants appear to inhibit germination and establishment of male plants. but not vice versa. **DIRK WALTERS**

You may ask...

So why is *Woodwardia fimbriata*, the Chain Fern, called Chain Fern? It is because the spore-producing sori on the underside of the frond are linear and arranged end to end as in a chain.

Sori you asked?



A Possibly Problematic Invasive Grass in the Realm of Saltgrass along the High Tide Line in Morro May David Chipping

Parapholis incurva is a species of grass native to Europe, Asia and northern Africa, and widely naturalized elsewhere. Common names include coast barbgrass, curved sea hard grass, curved hard-grass, sicklegrass, curved sicklegrass and curved parapholis.(Wikipedia). It was first published as *Aegilops incurva* by Carl Linnaeus and transferred into *Parapholis* by Charles Edward Hubbard in 1946. The illustration is from A.S. Hitchcock's *Manual of the Grasses of the United States*.





The problem with this annual grass is that it grows very well in the same tidal zone as Saltmarsh Bird's Beak (*Chloropyron maritimum* var. *maritimum*), a very rare plant. The photo was taken in Sweet Springs Preserve in Los Osos, where a thick thatch of *Paropholis* is seen covering the ground from which the *Chloropyron* is growing.

Of All The Gall! David Chipping



(Left) Galls of another Willow Sawfly (*Euura pacifica*) on willow at the Oso Flaco Lake parking lot. (photos David Chipping). (Right) Smaller galls of the Willow Gall Mite at the same location.



October Chapter Meeting Together Again Outside celebration



When: Sunday, October 2, 2022, 9 am - 4:30 pm Where: El Chorro Regional Park, Mariposa Picnic Area (near the Botanic Garden gift shop)

Program: This is a free, outdoor event sponsored by the San Luis Obispo Chapter in appreciation of our members and friends who have continued to support our chapter through these uncertain times. We have arranged several outdoor activities, listed below. You do not need to participate in any of the listed activities to come on by and enjoy this opportunity for a safe, in-person gathering.

SCHEDULE OF ACTIVITIES: Please note starting/return times (events overlap). CNPS requires participants to sign a waiver, which will be provided by activity leaders.

Anytime: Self-guided, small group exploration hikes along Dairy Creek Road (1 to 2 hours, at your own pace and activity level).

- 9:00 am to 12 noon: Plant ID walk help to create a plant list. Bring paper, pencil, and a clip board. Walk with fellow CNPSers and identify every vascular plant along the Eagle Rock and Oak Woodlands trails. There is poison oak. (3 hours, moderate pace and activity level)
- 10:00 am to 12 noon: Hike loop hike up the Eagle Rock Trail to Eagle Rock, returning on the Oak Woodlands trail. There is poison oak. (2 hours, faster pace, moderate level)

11:00 am to 12 noon: Bike Ride (bring your mountain bike and helmet) - Dairy Creek Road to end for beginners, out and back ride on a dirt road changing to a single track trail, with one creek crossing (1 hour)

11:00 am to 2:00 pm: Seed Exchange at the Picnic Area

12:00 noon: Gather for lunch at the picnic area.

(Please bring your own lunch and beverages)

1:00 Chapter President Melissa Mooney (and others) will provide an update on chapter business, highlights of successes during 2021–2022, and upcoming plans for 2022–2023.

2:00 pm to 3:00 pm SLO Botanic Garden – guided walk through the SLO Botanic Garden (1 hour).

2:00 pm to 3:30 pm Bike Ride (bring your mountain bike and helmet) - Dairy Creek Road to Oak Woodlands Trail to Discovery Trail for intermediate, loop ride with a few steep sections along the Oak Woodlands Trail. There is poison oak (1.5 hours).

Event Cancellation: This event will be cancelled in the event of heavy rain, Covid Restrictions, or County parks closures.

If you have any questions, please contact Lauren Brown at 805-570-7993 or <u>lbrown805@charter.net</u>.

We have missed our chapter meetings and botanical hikes and look forward to seeing you.

Thank you, the Picnic Committee.

See more Meeting details on our Website--<u>CNPSSLO.org</u>

OCTOBER 6TH CHAPTER MEETING VIA ZOOM

THE EMBARCADERO ROAD POLLINATOR CORRIDOR PROJECT

Juanita Salisbury

Register in advance for this meeting:

https://cnps-org.zoom.us/meeting/register/tZEvde2rrT0vH9DhjAGtD3LbQrJvqFHjEHZb

Please join us for a very seasonal presentation about installing native habitats in urban settings! Come hear **Juanita Salisbury** talk about how the **Embarcadero Road Pollinator Corridor Project** began with the creation of five public urban invertebrate habitats. In 2016, she approached the city of Palo Alto about transforming a parkway strip in her neighborhood into a pollinator garden. Juanita will share details about planning for launching this project, plant and design choices, challenges, maintenance, and the benefits of the gardens, as well as the reasons why installing a corridor of connected habitats is the key to resiliency optimal function. Juanita has a Ph.D. in biopsychology and a BA in Landscape Architecture. She has taught both psychology and landscape design at the university level, and is also an incredible photographer! Photos by Juanita Salisbury









Many of you are familiar with our Book and T-Shirt Sales Table that makes items available at our plant sales and a few other events. Its success has been its offering of hard-to-find books about native plant gardening and California-centric natural resources. Our beautiful T-shirt continues to be a best seller.

The chapter is in need of a person(s) to fill the Sale Table Manager position. This is an opportunity to share your love of books with a large receptive group of people. The general responsibilities include selecting and ordering books and T-Shirts, doing some basic bookkeeping and managing the sales table. There is flexibility with this position and how it moves into the future is dependent on a new manager's decisions. It is also potentially a role filled by two people; one for books, the other for T-Shirts.

Our former sales manager and other volunteers are more than willing to help orient, answer questions and assist a new Manager(s). Want to experience the sales table in action? Join us for a few hours at the sales booth at the annual November 5th Plant Sale at Pacific Beach High School in San Luis Obispo.

Want to know more? Please contact Linda Chipping (805)/528-0914, <u>lindachipping@yahoo.com</u>) with any questions or interest.

Seed Exchange at the Picnic



We will be having a seed exchange at the October 2nd picnic from 11-2. It has been several years since we have had a seed exchange so I will share a few guidelines. The seed exchange is for all who want to obtain seeds of native plants, some of which are not readily available through other sources. The seeds are free. You do not need to bring seed to participate. The goal is to get native plants into our landscapes. If you have been hard at work collecting this spring and summer, the time is almost here to part with those seeds. If you are interested in growing from seed, this is your chance to obtain free seed to try your hand at propagation.

Seeds should be identified with genus and species if you know it. Please clean the seeds as best as you can. Some, like the *Eriogonums*, are so tiny that they are difficult to separate from the chaff so those are often planted without being completely cleaned. Be prepared to describe where they were obtained. For those who have not had the opportunity to read my repetitive discussions about obtaining seeds: you should have permission from the landowner to collect seeds, it is illegal to gather seeds from public lands without permission, and we do not collect from rare, endangered plants. A picture of the plant is very helpful for those who are unfamiliar with plant names.

Seeds do not need to be individually packaged but it might be helpful if they are. I will bring some seed envelopes and pencils but feel free to bring your own. We will set up on one or two tables. We will need to all share this space so plan to be compact. I plan to be at or near the tables during the time of the exchange. You can feel free to stay with your seeds, "shop" for other seeds or enjoy some of the planned picnic activities. Plan for the wind to be an issue as we will be outdoors, so it would be nice to have something to hold things in place.

Another of my repetitive comments regards the purity of garden-collected seeds and serves as a reminder to those who aren't that familiar with growing from seed. Many of our gardens have multiple species of the same genus. Pollinators rarely restrict themselves to one species so opportunities for crossbreeding are there. The seeds at our seed exchange are generally not wild-collected from distinct populations. Just a cautionary note: Plants grown from seed may not come true. Some of our natives hybridize so that the seed of the *Diplacus aurantiacus* var. *aurantiacus* growing near the *Diplacus aurantiacus* var. *puniceus* may produce some interesting flower colors. The result may not be what you expect. It might be delightful or it might not. These garden-produced seeds will generally not be appropriate for use in restoration projects.

Hope to see you there.

Marti Rutherford



The Spiny Rose-leaf Gall Wasp on *Rosa ???*. You Decide.

While searching for some more pictures of galls, I found these fascinating galls on a rose (*Rosa*). I have always struggled with the differences between *Rosa california* and *Rosa spithamea*. Dr. Keil's key uses a glabrous hypanthium in *R. californica* vs. a hypanthium with stalked glands in *R. spithamea*, but that does not help us here. Here we see 5 leaflets, but as *R. californica* has 5-7 and *R. spithamea* 3-9 leaflets, that also does not help much. However, the leaflets are slightly hairy rather than glabrous, elliptical rather than elliptical-ovate, and the prickles are stout and curved, rather than a mix of stout and slender straight prickles. I would vote for *Rosa california* here. Do you agree?



Manzanitas of the Central Coast

Join our chapter's field trip coordinator, Bill Waycott, for a series of outings to many of the more remote *Arctostaphylos* populations, between Big Sur and Point Concepción. Each hike is roughly three hours, with one or more of the manzanita species as the destination. The outing will feature a conversation on the unique plant community in which these species are located and include the expectation of a healthy trek in nature. COVID19 social distancing and masks, if directed by the County Health Dept., will be required.

October 9th, **9:00 am, East Cuesta Ridge, SLO Co.** Meet at the start of the dirt road off of Hwy US 101, at the top of Cuesta Grade. (36.3503N 120.6317W). The hike is a total of 5 miles out and back, with a 600 ft. elevation gain. We will see two manzanita species (*A. luciana* – a local endemic, and *A. glandulosa*) and visit the unique ridge-top vegetation of Coulter and knobcone pines, madrones, tan oaks, etc. Contact: Bill, 805-459-2103.

Future hikes:

- Future locations:
- December 11th, 9:00 am
- February 12th, 9:00 am
- April 9th, 9:00 am
- June 11th, 9:00 am
- August 13th, 9:00 am
- Montaña de Oro State ParkOntario Ridge

Morro Bay State Park

- Santa Margarita Lake
- North Coast SLO County

Future locations outside SLO County

- Point Sal, Santa Barbara Co.
- Refugio Road, Santa Barbara Co.
- Burton Mesa, Santa Barbara Co.
- Pimkolan (Junipero Peak) and Milpitas, Special Interest Area Monterey Co.
- Big Sur/Cone Peak, Monterey Co.
- Monterey Peninsula/Fort Ord, Monterey Co.
- Santa Cruz Co.

Training for CNPS-SLO Field Trip Leaders

CNPS-SLO is in the process of redesigning its field trip program and wants to receive your input. While many of our members attend field trips, our chapter has only a few who lead them on a regular basis. As we strive to develop a more robust program, we ask you to seriously consider leading field trips at a level you find comfortable. Field trips are one of the best ways CNPS connects with the public - by taking them to interesting and diverse locations, and enjoying the time spent together.

As we recruit new outings leaders, our chapter has set up a two-step training program that gives new leaders a foundation from which to operate. This training includes:

• a one-hour face to face conversation with current field trip leaders, where we will go over the different scenarios of preparing for the outing, talk about safety out in the field, talk about the use of the CNPS waiver, talk about being comfortable in a public setting, and address the levels of botanical knowledge expected during the outings.

• a provisional field trip, co-led with one of the current field trip leaders, where the topic and destination is chosen by the trainee. After the field trip, the two co-leaders will review the outing and discuss what could have been done to make the experience better.

With this two-step approach, it is our hope to form a diverse team of field trip leaders and co-leaders who have a range of knowledge and experience, and want to share their knowledge and enthusiasm with the public.

It is important to remember that field trips can take the form of short walks from the car, hikes of less than a mile to several miles, or mountain bike rides. Our chapter supports all of these possibilities and asks potential leaders to consider multiple forms of engagement.

If you are interested in becoming a field trip leader or co-leader, please fill out the Field Trip Questionnaire, which is being circulated via e-mail to the chapter membership. You should have received the questionnaire by Tuesday, September 15th, 2022. When completed, send that copy via e-mail to Bill Waycott, <u>bill.waycott@gmail.com</u>. Thanks a lot!

CNPS-SLO Membership Field Trip Questionnaire September 2022

Please click <u>HERE</u> and the questionnaire will be downloaded to your computer. Open the file from your downloads, complete the questionnaire, and return it to Bill Waycott at <u>bill.waycott@gmail.com</u>. Your response is extremely important to the success of future CNPS field trips. Thank You!

aining for CNPS-SLO Field

Stenner Creek and West Cuesta Ridge



Los Padres National Forest's National Forest Ecological Restoration Project...isn't

So this is what LPNF says... "The Los Padres National Forest (LPNF) is conducting an environmental analysis of the Ecological Restoration Project, which is being proposed on four of the five Ranger Districts of the LPNF. The purpose of this project is to restore fire-adapted ecosystems, reduce fuels, and reintroduce fire on the landscape by prescribed burning on approximately 235,495 acres of land administered by the LPNF, within Kern, Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties. The Ojai Ranger District is excluded from this project. The project, as proposed, would enhance protection for wildland urban interface (WUI) communities and infrastructure, and improve fire and drought resilience of forested landscapes."

So... we can totally understand that some appropriate vegetation management is needed in the WUI, with 'appropriate' meaning that both ecological integrity and fire safety are included in the plans. However, when you take a look at the map, you will see that every part of LPNF from U.S. 101 to Hwy 41 is scheduled for treatment. We do not understand how the plan to do "vegetation treatment" in the Cuesta Botanic Area and along the road to Cerro Alto Peak does anything to either restore fire-adapted ecosystems. The way that USFS "reduces fuels" is to chop down (masticate) the plants and avoid using fire, which is nature's way of regenerating the vegetation. (Those of you who can remember what the land looked like after the "Highway 41 Fire" can compare those completely burned conditions to today's self-restored vegetation cover.) Mastication produces an unnaturally thick decomposing vegetation layer, smothering regeneration from seed and changing the burning temperatures and burning duration at ground level. If this is followed up by burning, it is nearly always done when moisture levels in plants, air and soil are relatively high. This usually results in steaming and sterilizing the soil, removing both the seeds and the mycorrhizal networks that support them. Without those, the site can be actively reoccupied by invasive grasses, and post-fire permanent conversion of chaparral to non-native grassland is common, as seen in many southern California locations.

CNPS attended a poorly conducted "virtual meeting" in which LPNF staff tried to show why there was a need for this project, and what they planned to do. The fact that they kept showing photos of masses of dead conifers that clearly could not have been taken on LPNF, and glossed over ecological impacts with a "we are saving nature for you" response that revealed that the meeting was really not designed to pay any attention to public input.

I expressed concerns that the serpentine-endemic plants of the Cuesta Botanic area would not tolerate any earth movement by heavy equipment and asked for a more detailed description of how LPNF planned to treat this area, but have seen no response. We are also concerned with the integrity of fire-dependent trees such as Sargent Cypress, Coulter Pine, and Knobcone Pine along ridgeline habitat. ...(continued next page)

(Continued from preceding page)

For Neil Havlik, on our Conservation Committee, this is 'déjà vu', as he wrote a very strong letter to LPNF when he was chapter president in 1972. This is part of what Neil wrote.

The fuel break policy of the Forest Service in California is in total disregard of this (ecological)

knowledge. First of all, by "protecting" the area from fire you are allowing more and more combustible material to build up, as well as allowing the plants to become decadent and consequently weaker. Thus, when a fire does come (I am sure you don't have any illusions about eliminating fire completely), it is likely to be of greater intensity and acting on weaker plants, The result is death of the plants and nothing to come back, and then erosion will work its way freely......

And of course, LPNF completely ignored Neil's input and bulldozed the existing broad fuel break along the ridgeline... which did absolutely nothing in stopping or even slowing the Highway 41 Fire. We are going to submit detailed comments and expect the same response from LPNF. This is partly because one of the LPNF staffers on the "virtual meeting" stated in response to a question that there would be no need for NEPA review as this was essentially considered exempt as a normal management action. David Chipping: Chapter Conservation Chair

More information on the Forest-wide project, including the purpose and need, proposed action, and maps are available on the project webpage: <u>https://www.fs.usda.gov/project/?project=62369</u>. This web page will be updated as the analysis progresses and more information is available. Comments can be made up to 9/27/2022 at <u>https://cara.fs2c.usda.gov/Public/CommentInput?</u> <u>Project=62369</u>.

LOOKING BACK. WHAT THE OLD NEWSLETTERS TELL US

Looking Back 10 years to October 2012, we were just starting to assemble the Carrizo Plain Wildflower book. We sent support money to California Invasive Plant Council Conference, and reported on an upcoming meeting with State Parks on the control of veldt grass. In that regard, it is sad to say that nothing has happened in the last 10 years

Looking back 15 years to 2007, the big conservation issue was the development proposed by Santa Margarita Ranch south of the town, with the big issue being overuse of the groundwater due to expanded vineyard development and the dewatering of local streams. The bad news is that the vineyards were developed and additional housing is being developed, and CSA 23, the water provider, has issued a 'Water Alert', asking for a voluntary 15% drop in use.

Looking back 20 years to 2002, CNPS members working as the Board majority on MEGA (Morro Greenbelt Alliance) celebrated the purchase of 18 acres of dunes and shoreline west of Butte Drive in Los Osos for incorporation into Montana de Oro State Park. Neil Havlik was setting up a group to discuss the future uses of West Cuesta Ridge and, in particular, the regulation of bike use.

Looking back 25 years to 1997, the big issues were the EIR for the Nacimiento Pipeline and the decision to allow Sycamore Hot Springs to build in the San Luis Creek floodplain, and also the Divincenzo General Plan Amendment for the same area. CNPS was also serving on the County Tree Ordinance Committee and the Morro Advisory Committee. In both committees, agricultural interest and property rights advocates basically weakened any significant progress.

Looking back 30 years to 1992, members of our chapter were responsible for bringing the first Pest Plant Symposium to Morro Bay, the very first conference of what was to become the Cal-IPPC California Invasive Plant Council. We initiated a survey of Morro manzanita likely to be impacted by development in Los Osos. We reported on oak tree planting along a newly realigned Highway 46. The construction of the Goodwin Education Center in the Carrizo Plain National Monument was underway.

Looking back 35 years to 1987, the chapter was collecting signatures in support of "The Parks and Wildlife Initiative" We see Dirk Walter's description of how plants are collected as the first appearance of a dot matrix printer input, all other input being hand typed

Looking back 40 years to 1982, the main concern was the Reagan Administration's plans to turn over public lands to the private sector.

And Finally...Every one of these newsletters had a plant drawing by Bonnie Walters and a plant description by Dirk Walters. Every year.

"RECENT" CHANGES IN LOS OSOS OAKS STATE NATURAL RESERVE YOU MIGHT NOT HAVE KNOWN ABOUT

David Chipping

YES...to a geologist 1955 is very recent, but hardly anyone who might remember conditions in the Los Osos Oaks at that time is around to tell us about what the 1955 aerial photograph reveals. The black-and-white photo shows that a significant area had been cleared of vegetation adjacent to Los Osos Creek, and has a road passing through it ('A' on the photos). The northern part of the cleared area appears to be returning to a grass-shrub mixture, but there are two apparently active field crops in what is now a forested area to the south. The field boundaries echo those from the east side of Los Osos Creek, which is the narrow dark line of riparian vegetation. Those of you who have hiked the Creek Trail might have tripped over the cast iron pipe that probably brought irrigation waters up to these fields.

The 2021 Google Earth screenshot does show some remaining grassland in this area, which is the toyon-dominated area along the Los Osos Creek Trail, There seems to be no trace remaining of the road, and it is clear that nature is reclaiming the area. Why were there areas cleared for crops? It turns out that the ancient sand dunes that dominate the Los Osos area stopped short of Los Osos Creek, so a small area of clay-dominated soil exists west of the creek. The toyons apparently favor such soil.

The other area of interest is located close to the intersection of Bayview Heights Drive and Valley View Drive on the southern side of the Los Osos Oaks ('B' on the photos). Note the rectangular patch of land that in 1955 had been cleared of all vegetation. The 2021 photo shows three houses on the land, one south of Valley View Drive and two north of the road. Note also that there is a dense shrub cover on the remaining land, which is largely under a conservation easement based on the population of Morro manzanita (Arctostaphylos morroensis) on the property. When the landowner applied to subdivide the original rectangular parcel, the presence of the manzanita forced the protection of the plant and the conservation easement as a condition of development.

So here is the lesson we learn about Morro manzanita. The plant is an 'obligate seeder' where the conventional wisdom is that the plant needs standreplacement fire to regenerate. This is clearly not the case on this site, or elsewhere in the Moro Dunes Ecological Reserve, as the manzanita can be seen restoring itself in the absence of fire. Some of you might remember an experimental attempt to regenerate manzanita by burning a patch adjacent to the Pecho Road summit at the entry of Montana de Oro State Park. The experiment was declared a failure in terms of regeneration when nothing happened for many years, but then there was a sudden burst of recruitment and there is now a healthy stand at the site.



(Top) 1955 photo of the Los Osos Oaks State Reserve area. (Bottom) Google Earth Screenshot 2021

THE CORNER OF BELMONT AND CLARKSBURG

David Chipping

Many of you have been taken to this location on CNPS field trips to the Carrizo Plain. We have usually turned east on the first road south of the fire station, called Belmont Trail, and continued 2.5 bumpy miles to the junction with Clarksburg Road. On the northwest side of the road junction was a very nice collection of vernal pools and bare 'slicks', and the area offered very pretty

wildflower displays around the pools. I say 'were' because a house has been constructed immediately adjacent to the pools. and a tracked vehicle was driven through the pools causing severe disruption of the natural surface. While some pools remain intact, the location is severely degraded. However doing surveys of the area and monitoring any possible recovery will be a possible long-term project for CNPS or as a student project.

In addition, there is yet another opportunity for some research at this location. The northeast corner was completely burnt by a 2019 fire. This area was a wonderful wildflower area in wet years, and we hope to see if the seeds survived the fire. This is another potential monitoring project.



These two Google Earth screenshots show the once-pristine vernal pools in the northwest quadrant of each photo. The blackened burnt area is seen in 2019, and there is some recovery when the rains started in 2020.



Above: Construction adjacent to vernal pools, Spring 2021 Below: Destruction of the vernal pools. 2021. Note the bare burn area on the far side of Clarksburg Rd. (Photos: D. Chipping)





Two photos of the area east of Clarksburg Road show the incredible flower displays during a year with decent rainfall These were taken April 9, 2019. Our concern for the burn area is that non-native grasses might have had a great advantage over native plants due to drought conditions in the last couple of years,

One Very Weird Euphorb

David Chipping

During the last attempt to have a member-contributed slide show via ZOOM, you would have seen this strange-looking plant that was found by Dr. Keil on the Camatta Ranch, east of Shell Creek and short of Red Hill Road on the south side of Highway 58. The plant is *Stillingia linearifolia* (Linear leaved stillingia), a member of the Euphorbia family. The two locations found by Dr. Keil are the only known county occurrences, and only the second report from the South Coast Range, the other being in western Fresno Co. As the screenshot from CalFlora shows, it is a southern California species that appears well suited to hot, dry summers. Global warming, anyone?

Up to this time there were only three genera of the Euphorbiaceae in the County. These are Croton (2 species), Euphorbia (12 species, and *Ricinus* (1 species-the castor bean) plus a garden escapee *Mercurialis ambigua*.





Photo: Dr. David Keil

Cal Poly Botany Students in Alaska

Dena Grossenbacher



Cal Poly students and faculty spoke the International Botanical at Society of America conference in Anchorage, Alaska this July 24-27. Master's students presented work highlighting several San Luis Obispo County natives including Irish Hills monkeyflower (Annie Zell), purple amole (Nora Bales), and six species native to the Carrizo Plain (Emma Fryer). Channel Island taxa were also highlighted in talks by master's students Annie Meeder and Stephanie Calloway. Other Cal Poly attendees and presenters included Erin Grady, Kieran Althaus, Paul Excoffier, Jenn Yost, Dena Grossenbacher, and Matt Ritter.

Cal Poly students and recent grads at Botany 2022 in Anchorage, Alaska. Left to right Paul Excoffier, Annie Zell, Charlotte Miranda, Nora Bales, Erin Grady, and Stephanie Calloway.

Progress Report on the SLO Chapter Photo Archive

This Archive is to serve the purpose of providing photographs that can be used without fear of copyright infringement. So far we have 10,973 photos with attached GPS locations and 9,535 photos with no GPS location. There are over 2,100 species listed, and this includes some horticultural escapees. Around 940 species known to be in the County are not represented in contributed photographs. All contributed photographs are given Creative Commons Attribution-ShareAlike 4.0 International protection of ownership (CC BY-SA 4.0), which allows the user to share or copy and redistribute the material in any medium or format, and to adapt, remix, transform, and build upon the material for any purpose, even commercially. Each photo has an associated 'tag file' that shares the same name and which displays the copyright, so that photo donors that wish to place a more restrictive copyright can do so. The tag file also gives GPS, location information, date, and other photo metadata.

There needs to be a 'quality assurance check' on photos, as there are some that are most likely misidentified. We are also very short on good diagnostic photos of plant properties that figure in the species keys (for example *Rosa californica* vs *Rosa spithamea*).

The Archive has sections on Lycophytes, Ferns, Gymnosperms, Nymphaeales, Magnoliids, Ceratophyllaceae, Eudicots, Monocots, Locations, Pollinators, and all SLO County 7.5-minute Quadrangle Maps. We have added sections on usable art, such as the drawings of Bonnie Walters, Alice Meyer, Heather Johnson, and others, a section on horticultural specimens, and more.

We have included photos from sites like CalFlora in cases where local photos are poor or lacking (not included in the photo count). The only ones we chose are copyrighted to allow non-commercial use, but would require permission to use in a publication for sale. We also have collected Hoover Herbarium specimen photos taken from the CCH2 site, so these are not CNPS owned, but mostly carry liberal copyright.

An important addition to the archive is a section dedicated to chapter history. We have digitized nearly all newsletters from 1972 to the present, and collected photos of events such as the annual banquets and field trip attendees, There are photos of people who made significant contributions to the chapter, such as Kathleen Goddard Jones.

We will be asking for contributions of photos or documents you deem to be of significance. Many photos of field trip participants are taken, and languish in photo purgatory. If you find one, send it on to us.

So... if you are looking for something you think we might have... just ask. It is your collection. For the time being contact David Chipping at <u>dchippin@calpoly.edu</u>.

David Chipping: Archivist

Some Asteraceae (names "starting with A or B") Lacking Good Photographs

Agoseris hirsuta, Ambrosia artemisiifolia, Anisocarpus madioides, Anisocoma acaulis, Arnica discoidea, Artemisia pycnocephala, Baccharis plummerae ssp. plummerae, Baccharis plummerae ssp. gabrata, Bidens laevis, Brickellia californica, and Brickellia nevini

Lichen of the Month: *Cladonia firma* or Popcorn lichen

This foliose ground-dwelling lichen has a California Rare Plant Rank 2B.1 and is found on the older dune sands around Los Osos. The photo shows it when wetted by recent rain, but it quickly shrivels up into a pale gray mass that looks only vaguely like popcorn. The *Cladonia* species found in SLO County are mostly ground dwelling or are found close to the ground on bark or broken branches.



Teach Your Children Well

Susi Bernstein

Here's a nice little story for you. Our granddaughter has just started at Cal Poly as an Environmental Management and Protection major, and the topic she's chosen to focus on for her public speaking class is the importance of native plants. How can this possibly be?

I honestly kept my native plant proselytizing to a minimum while she and her family lived with us for six years. In fact, nobody really seemed all that interested in what Grandma was doing on the side. Could it have been the CNPS laminated grass posters, used as our dinner place mats, that had to be wiped down as part of the kids' kitchen cleanup chores? Was it the native plants in our yard that I would gather into a bouquet for the crossing-guard and elementary school teachers on those appreciation days? Was someone paying attention to my jars of labeled plant specimens prepared for CNPS outreach events? Was it because I sent our granddaughter out again when she brought me a sprig of California sage instead of rosemary for the spaghetti sauce? ("They look the same," she complained.)

I recently learned that our granddaughter's college application essay alluded to the week she had to go on local hikes with me to learn and photograph 100 plants as punishment for some transgression she had committed. As I recall, she was surly (so was I) and reluctant as we set out, but her enthusiasm grew steadily as soon as she realized her knack for recognizing the common species and remembering their names. She quickly discovered her favorites. She started showing off to friends and family. She started commenting on our yard.

What if each one of us in the CNPS-SLO membership could try, in our own way, to expose just one child to the beauty and importance of California native plants? The children are watching and listening, and it apparently doesn't take much to influence them. Let's do as CSN&Y implore and teach them well.

P.S. We are seeking a new Education and Outreach chairperson. Would you like to help us? We also welcome new faces to serve on this committee and participate in our school and public outreach events.

What does a Prickly Pear on The Fireman's Trail have to do with the Rolling Stone Lips ?

While walking the start of the Fireman's Trail at the end of Lizzie Street in SLO, I noticed a lot of common prickly-pear (*Opuntia ficus-indica*). Looking closely, you might see white fuzzy patches growing around the spines. These are created by the Cochineal Scale Insect (*Dactylopies coccus*). If the white stuff is removed and crushed, you will also crush the red scale insects within, releasing the liquid called cochineal. This is the source of the dye Carmine Red, used in food coloring and... yes lipstick on the Rolling Stone Lips. Incidentally, PETA (People for the Ethical Treatment of Animals) maintains a list if animal-free lipsticks, objecting to the death of the scale insects. The chemical structure of the dye shows how it puts the O-HO in Santa's suit.



(Left) The white fibrous galls on Prickly-pear at Lizzie Street, SLO City (D. Chipping); (Center Left) Line drawing *Dactylopies coccus* (Public Domain) and colored insert (<u>https://antropocene.it</u>/); (Center Right) Cochineal dye (Wikipedia Commons); (Right Upper) Red dyed lipsticks (PETA), (Right Lower) Cochineal chemical structure (Public domain).

JOHN NEEDS YOUR HELP AT THE NOVEMBER PLANT SALE

Volunteers are needed for our Saturday, November 5th plant sale. We need 10-12 individuals to help set-up in the morning, to move plants from tables to cars, assist customers with plant questions and to be there promoting the importance of California native plants. Assistance is needed from 8:00-3:00. Thank you

Contact John Doyle at: 805.748.7190 (text or call).

JOHN'S HORTICULTURAL HINTS

I've worked in the landscape construction business for over thirty years, and as many times as I've put plants into the ground, I've found as many new and better ways to give a plant the best opportunity to survive.

Green side up, of course, don't expose the roots too long (30 seconds max. before damage due to UV light/ heat), tilt the pot into your hand with fingers surrounding the stem - don't tug it, and water pre-planting and heavily after planting. Plants need nurturing early on in their lives just like we do.

Other important factors to remember: Know the amount of direct sun exposure, your plant's preferred light and water requirements, the plant's growth habit (how big can it get), animal problems, the best soil type, is it deciduous? are only a few things to think about.

Whether you're planting non-natives or native California species (highly recommended), you will have many challenges. However, when the plants begin to mature and the birds, bees, and butterflies are abounding, you know it was all worthwhile.

Rubus ulmifolius var. *anoplothyrsus* Unarmed Blackberry

This trailing and climbing vine is a garden escapee and has been observed in San Luis Creek, Arroyo Grande Creek, and Santa Rosa Creek where these two photos were taken (on the village side of the footbridge from the Fiscalini Property to the East Village). Note the palmate leaves. You might have mixed feelings about a plant with yummy berries that does not attack you, vs the fear that it will become as invasive as the Himalayan blackberry. The latter is a real pest in northern California.





John Doyle

Manzanitas of East Cuesta Ridge to be seen on the October 9 Field Trip



(Left and Center) Arctostaphylos luciana (Right) Arctostaphylos glandulosa.



Photos E.C. Cunningham

A Call for Nominations-Community Award

Susi Bernstein

CNPS-SLO greatly values the individuals, organizations, and businesses that support and promote its mission in the local area. The Community Award is intended to highlight the important work that is conducted outside of the CNPS organization. For example, in 2019 we honored the Atascadero Land Preservation Society (ALPS) for their work in purchasing and preserving land in the City of Atascadero. This award is for any local individual or organization/business with a strong local presence that has made a significant contribution(s) to promoting native plants or the general natural environment within San Luis Obispo County or Northern Santa Barbara County. A significant contribution can include, but is not limited to, the following: (a) Outstanding record of protection of native plants and habitats; (b) Inspiration of students and promotion of native plants; (c) Excellence in collaboration, commitment, innovation, and/or leadership* (d) Consistent demonstration of a cooperative and positive attitude; or (e) Exemplary service in a leadership position.

To submit a nomination, please contact Susi Bernstein (<u>writesusi@gmail.com</u>) with the name of the individual/entity and why you feel they should be honored. Final evaluation and award determination is made by the CNPS-SLO Board using the above criteria. This is not necessarily an annual award; it is presented when there is a desire to recognize a deserving recipient. The award is usually presented at the annual January banquet gathering, and we have hope that some kind of in-person gathering will be possible in January 2023.



Welcome New and Renewing Members since April 2022: Thank you. You are the lifeblood of our Society. For membership-related issues, contact LynneDee@althouseandmeade.com.

C. Warren Arnold Jesse Arnold Nicholas Babin Shelley Billik Charles Blair Mark Bracewell Wendy Brown Jean Burns Slater Frank Bush Kimberly Chacon Mary Devlin Laura Drenth Meg & Keith Evans John Evarts Molly & Ted Fainstat Francesca Fairbrother Nancy Fitzhugh Connie Geiger Gail Hammerschmidt Cynthia Hannahs Marlin Harms Arylane Hill Dan Hooper Bob Hotaling James Johnson Joey Kehoe Cheryl & Terry Kershaw Bonnie Kinney Virginia & Barry Langdon-Lassagne

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Majorie Popper Walter Ramage Jennifer Roe Amy Sinsheimer James Smith Faith & Piers Strailey Jan Surbey Rodney Thurman Leslie Vincent Nancy Wicks Bonnie Williamson Chris Wilson Christopher Winchell Jenn Yost



Southern Goldenrod (Solidago confinis) and Mock-Heather (Ericameria ericoides) Shark Inlet September 13th 2022

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

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Vice President Kristen Nelson kmnelson.nativeplants@gmail .com

Secretary Cindy Roessler skantics@gmail.com

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Hospitality Lauren Brown: (805) 570-7993 lbrown805@charter.net

Chapter Publications Matt Ritter mritter@calpoly.edu

Cal Poly Faculty Representative Dena Grossenbacher denagros@gmail.com

Cal Poly Student Representative Erin Grady elgrady@calpoly.edu

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

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



□ 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)

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