
Obispoensis

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



Sky Lupine
Lupinus nanus

March 2023

Sky Lupine *Lupinus nanus*

The drawing used for the cover on this issue of the **Obispoensis** was created by Mardi Niles back in 2006. But it wasn't her original artwork that appeared then, just a black and white scan of it. On this cover you'll find a copy of her original art in full color. I suspect that all of you will quickly recognize the plant as a lupine. But which one? When Mardi told me she had drawn it, she said that it is so common that I assumed we had already used it for a cover, but I was wrong! Things that are local and/or common are often overlooked in favor of that which is distant or uncommon. Bonnie and I were as guilty of that as most. In other words, we had not used this commonest of our local lupines. It is *Lupinus nanus*. It goes by many common names, but blue or sky lupine are the most common ones used around here. This species often fills roadsides and pastures. It can be so numerous that a field of them can be mistaken for water. In fact, I made that very mistake the first spring I was in California. I grew up in the Midwest and had never been west of Iowa; back there you just don't get huge expanses of a single species of flower. I was in a car with several other Chapter members when I spotted a patch of blue in a depression. I said, "look at that little lake!" This, of course, caused much laughter in the car. I quickly said "my mistake!" However, I still insist that sky lupines can grow in such numbers and density that they can, in fact, look like bodies of water. In my defense, my first spring was 1970, the year after the record rainfall season of 1968-69. It wasn't until many years later that I witnessed a wildflower year that was anywhere comparable.

Sky lupine is an annual and extremely flexible in its ability to grow. In dry years or on dry hillsides, it may be less than six inches tall and produce only a single inflorescence. Mardi tells me that she saw individual sky lupine plants in the Los Padres National Forest in 2005, which was also a good rain year, "that were three feet tall and blooming like mad." In a semi-desert environment like our Central Coast, a plant must play a game of odds and lupines seem to be particularly good at it. For example, if you examine the picture carefully you will notice that the flowers on the main central stem are well on their way to fruiting. The taller and more robust side branches (Mardi indicates she drew only two of the eight to ten that were on the plant when it was collected) are just getting a good start in their bloom. How can this be explained? First, we must remember there must have been enough rain that fall to germinate the seed and allow the plant to get a fair start. It was probably mature enough to start blooming by January when the rain sort of stopped. Although it remained cool, it was warm enough for the surface soil layers to begin to dry out. This plant was able to detect its water getting scarce and started producing flowers at the end of its main (and then only) stem. It would have put all its available resources into producing those flowers and fruit. Then the rains returned with a vengeance. Again, there was plenty of water available, so the plant diverted most its available resources to the growing branches. Note that each branch ends in an inflorescence. So, each branch had the potential of producing another 20 or more flowers and fruits. Mardi collected the plant in mid-March. One can surmise that the inflorescence on the main stem had been maturing very slowly at that time. This would explain why it is still relatively early in its fruiting cycle a month and a half after it probably produced its first flowers. Plants, like all of us, must live within a budget. Flower and fruit production takes a lot of energy and material; so much, in fact, that a plant can barely grow and reproduce at the same time. Annual plants, such as sky lupine, put so much into flowering and fruiting that the vegetative parts of the plant end up dying soon after most of the seeds are ripe.

Most people think that all lupines are poisonous. Yes, lupines do have a rogue's gallery of secondary metabolites that are poisonous in large quantities. But are they poisonous to livestock and people? Here the story gets a little murky. It is well documented that several European lupine species cause death and illness in livestock. However, the story of American species is mixed. Feeding studies of the various compounds that should be poisonous turn out to be merely distasteful. However, the foliage of a couple of species have caused livestock to become ill. How to explain this potential anomaly? There are at least three explanations and I suspect all may be correct for one species or another. First, the compounds tested weren't the ones causing the problem, i.e., there are other compounds yet to be isolated and tested. I think this is the least likely to be correct. Others have hypothesized that since the poisoning was caused by lupine hay, the plants had molded, and it was the fungal mold that caused the poisoning. Obviously, that would be easy to test, but to my knowledge the study has not been done. A third explanation derives from the fact that many members of the legume family (including lupine) can concentrate heavy metals in their tissues. The plants absorb them and then sequester these potentially poisonous elements in their tissues. When livestock digest the lupines, they free the metals and thus their illness is really caused by metal poisoning. We still have a lot to learn!

Illustration by Mardi Niles - Text by Dirk R. Walters with help from Mardi Niles.

Some Past Sky Lupine Displays



Shell Creek



North Coast



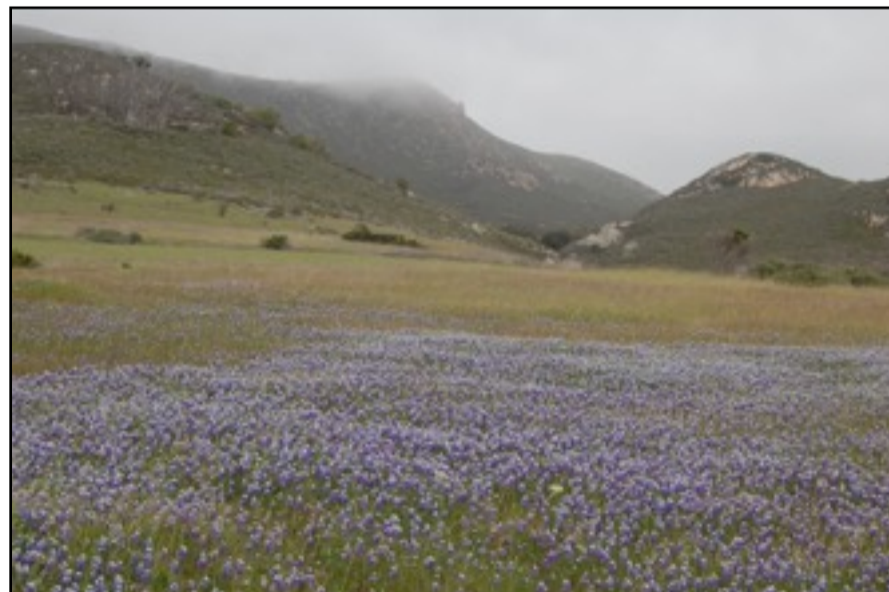
The Indians, Camp Roberts



Santa Rosa Creek Road



Santa Rita Road



Morro Bay State Park

The Carrizo Conservancy's Wildflower Alert #2

Neil Havlik, President of the Carrizo Plain Conservancy told us: *“Since the heavy rains of early and mid-January there have been a few smaller storms that have gone through the Carrizo—enough to keep the ground wet.. It is beginning to look like we will have a decent wildflower season, if not a really good or great one. I am thinking that things might be a little early this year—late March into early April. A lot still depends on the rainfall from this point (mid February) on. There have been optimistic forecasts for a “superbloom” but I don’t think so. Nevertheless, the signs at this time are hopeful; the soil is moist and will not really dry out quickly because it is still wintertime, and so the wildflower plants can grow even without too much more rain.”*

Apparently There's Mushroom for Debate

The identification of a mushroom in the last issue as *Chroogomphus vinicolor* has been challenged as being *Chroogomphus ochraceus*. The issue lies in the color of the cap. Apparently one of these was a spore choice. DC



**San Luis Obispo Chapter of the
California Native Plant Society Outdoor Potluck Picnic
(rain cancels)**



Sunday, March 19, 12:00 (noon) to 4 p.m.
Atascadero Lake Park BBQ Area #1, SR 41 South and Lago Ave, Atascadero

\$10 per person, plus a potluck item for the meal
12:00 p.m. – Social Hour 1:00 p.m. – Buffet Style Potluck
2:30 p.m. – Chapter business 3:00 p.m. – Program

Directions: The park is located on CA-41 South approximately 1.4 miles west of US-101 (take exit 219 for CA-41/Morro Road, head south toward Morro Bay, in 1.4 miles turn left into the parking lot on Lago Ave. (near the Charles Paddock Zoo Entrance). From SR-1 take CA-41 North/Atascadero Rd/Morro Rd, in 15 miles turn right on Lago Ave. BBQ Area #1 is next to the parking lot. There are other parking areas on either side of the park off Pismo Ave or Portola Road. (SEE NEXT PAGE FOR MAP)

Program: There will be awards and announcements, followed by a short program by David Chipping during dessert on the Vegetation Communities and their underlying geology in and around Atascadero.

There are numerous trails of varied lengths and difficulty around Atascadero, including the Bill Shepard Native Plant Garden near the entrance to the Stadium Park Trail and the Lake Park Native Garden. If you'd like to work up an appetite, here is a link for Atascadero trails and hiking: [Trails & Hiking \(atascadero.org\)](http://Trails & Hiking (atascadero.org)).

There is no kitchen, so no ovens or refrigerators for potluck items. We are planning on using the BBQ to keep food warm (and looking for one or two volunteers with expertise). It is a large BBQ pit, but the top is well used and may not be ideal for cooking, but we want to get it set up so we can put foil on it, or the dishes, and keep any hot pot luck dishes warm. **Please keep this information in mind when preparing your potluck items.**

Potluck suggestions: CNPS will be providing appetizers, wine, coffee, tea, and assorted beverages. Wine glasses will be available, as well as disposable plates, cups, napkins, and utensils, although you are encouraged to bring your own reusable items. For the potluck, we are asking those with last names beginning with the following letters to bring the suggested item (and serving utensils). However, if you have a dish you especially want to share with the group, please feel free to bring it or contact Lauren (805-460-6329 or lbrown805@charter.net) for suggestions.

A to H: main meat or veggie dish I to Q: salad (with dressing) or side dish R to Z: dessert
Please label your dish and put your name on your serving items so they can be returned to you.

Volunteers needed: We need volunteers to help set up (11 to noon) and clean up (4 to 5), as well as keep an eye on the food, drinks, and supplies during the event. **Anyone with BBQ expertise**, we will be at the BBQ area at 10am (or earlier , if needed).

RSVP Please mail your reservation and check payable to CNPS by March 11, 2023, to:
David Krause, 2706 Newton Drive, Cambria, CA 93428,
or contact David at dkincmbria@aol.com, or 805-459-9007
Reservations may also be made through our website CNPSSLO.org using PayPal/Credit Card
If you have any questions, please contact Lauren Brown at 805-570-7993 or lbrown805@charter.net.

Thank you, the Banquet Committee

CNPS Picnic Reservation (If Rain Cancels, We Will Refund)	
Name _____	Telephone _____
Number of people: _____ x \$10 per person = \$ _____ Total	
Mail To: CNPS-SLO Banquet 2706 Newton Dr. Cambria, CA. 93428	



Top Left: The island at the south end of the lake Bottom Left: *Lupinus microcarpus* on lakeshore
 Right: *Lupinus nanus* on east side of the lake

Photos: D. Chipping

Field Trips and other Events

February 25th, 2023, Saturday, 9:00 am. iNaturalist workshop #2, Bishop Peak Natural Reserve, San Luis Obispo. In this outdoor workshop we will discuss the use of iNaturalist as an online community to record, share, and discuss observations of life on Earth and practice recording observations. This is follow-up training to the January 28th iNaturalist workshop #1, however, you do not need to have attended workshop #1 to attend this one, because the basics of using iNat will be reviewed at the start. From there, we will hike the Felsman Loop, 2.6 miles with an elevation gain of 560 feet, to practice using our newly acquired skills, including a focus on how to use iNat's unique features in identifying plants. Some of the flowering plants recently posted on iNat from Bishop Peak include shooting star and California peony. Meet at the Patricia Street trailhead (near 890 Patricia Drive; 35.3046, -120.6854). Park along the street in front of the residences. Bring your mobile device, something with which to take notes, water and snacks, a hat and sturdy shoes, and dress in layers for the weather. A plant list for Bishop Peak Open Space can be found on the CNPS-SLO website at <https://cnpslo.org/resources/finding-plants-in-the-wild/>. For an introduction to iNaturalist, visit <https://www.inaturalist.org/>. Also, we recommend you create an iNaturalist account ahead of this workshop by downloading either the Android app at Google Play, or Apple app at Apple.com. Please note a mobile device is not absolutely necessary for use of iNaturalist. Contact, Leif Behrmann, 805-395-6544. Rain or threat of rain cancels.

March 15th, Wednesday, 2:00 pm, Atascadero Library, CNPS presentation on California native plants appropriate for gardens located in the northern interior parts of the county, the region of SLO Co. commonly referred to as "over the grade".

March 18th, 2023, Saturday, 10:00 am, Santa Rita Ranch, located near the intersection of Old Creek Rd. and Hwy 46, west of Templeton, CA. Meet at the ranch at 10:00 am, or join in a carpool from San Luis Obispo at 9:15 am. David Keil and Lindsey Roddick will be our guides. Santa Rita Ranch is one of the land holdings of the Land Conservancy of SLO Co. A link to the LCSLO ranch webpage is [:https://lcslo.org/santarita/](https://lcslo.org/santarita/) A link to the CNPS plant list for this location is: <https://cnpslo.org/resources/finding-plants-in-the-wild/> Bring adequate water, snacks, and dress in layers for the weather; a hat and sturdy shoes are advised. Participants will need to RSVP by March 12th to be included in this outing. Email bill.waycott@gmail.com to reserve a spot (please put "Santa Rita Ranch" in the subject line), 805-459-2103. Further information will be available in late February. Rain or threat of rain cancels.

Sunday, March 19th, 2023, 12:00 noon to 4:00 pm, Atascadero Lake Park BBQ Area #1, SR 41 South and Lago Ave, Atascadero. (see previous page). There will be field trips associated with this event (TBA).

Saturday, March 25th, 2023, 9:00 am, Coreopsis Hill in the Guadalupe-Nipomo Dunes. Please arrive between 8:45 am and 9:00 am. This is a casual walk through the dunes to the top of Coreopsis Hill. Total distance is 3 miles with an elevation gain of 300 ft., lasting three hours. The last portion of this hike is walking on sand dunes. Have your "Dune Mother's Wildflower Guide" (copies will be available for sale at the trailhead). The Guadalupe-Nipomo Dunes-Point Sal Coastal Area contains the largest, relatively undisturbed coastal dune tract in California and was designated a National Natural Landmark in 1974. Five major plant communities are represented here including a) the pioneer/foredunes; b) the coastal dune scrub; c) the riparian woodland; d) the coastal dune freshwater marshes, ponds, and swales; and e) the active interior dunes. The flora includes many endemic plant species including numerous rare, threatened and endangered plants and animals. The hike is sponsored by CNPS, the US Fish and Wildlife Service, and The Dunes Center. Bring adequate water, snacks, and dress in layers for the weather; a hat and sturdy shoes are advised. Directions: Highway 1 to Oso Flaco Lake Rd, then west on Oso Flaco Lake Road 2.5 miles to Beigle Rd. Look on the left side of the road for a 6 ft. tall wire mesh fence and steel gate. The gate will be open at 8:30. Do not park on Oso Flaco Lake Rd. Restrooms are available at Oso Flaco Lake State Park, ¾ miles further west on Oso Flaco Lake Rd. for use before and after the hike. Note: pets are not allowed. Contact Lauren, 805-460-6329 or Bill, 805-459-2103. Rain or threat of rain cancels.

Saturday, April 1st, 2023, 10:00 am to 1:00 pm, California Native Plant Society plant sale.

First week of April, 2023, tentative field trips planned to Shell Creek and the Carrizo Plain National Monument

Cal Poly botanical field trips April 6th to 8th, 2023. (SEE NEXT PAGE) To register for one or more of these events, use this form to complete registration [Cal Poly RSVP](#).

- Thursday, April 6th, 2023, Arroyo De la Cruz and North Coast SLO Co., field led by Dave Keil
- Friday, April 7th, 2023, the serpentine hills of SLO, field trip led by Dave Keil and Matt Ritter
- Saturday, April 8th, 2023, Shell Creek and Carrizo Plain, field trip led by Dave Keil.
- Saturday Evening, April 8th, 2023, Cal Poly Conservatory, open house and book release - The Flora of San Luis Obispo Co., Second Edition.

San Luis Obispo Botanical Celebration

On April 8th we are celebrating the book release and publication of **Dr. Dave Keil's flora of San Luis Obispo**. Two decades in the making, and it's finally in print! This beautiful book will be available for the first time at this event.

We will also celebrate the grand opening of the new **Cal Poly Plant Conservatory**, a beautiful new glasshouse with our teaching and research plant collection.

To celebrate these two significant events and a wonderful rainfall year, we are hosting a series of field trips and an evening dinner celebration with a presentation by Dr. Keil.

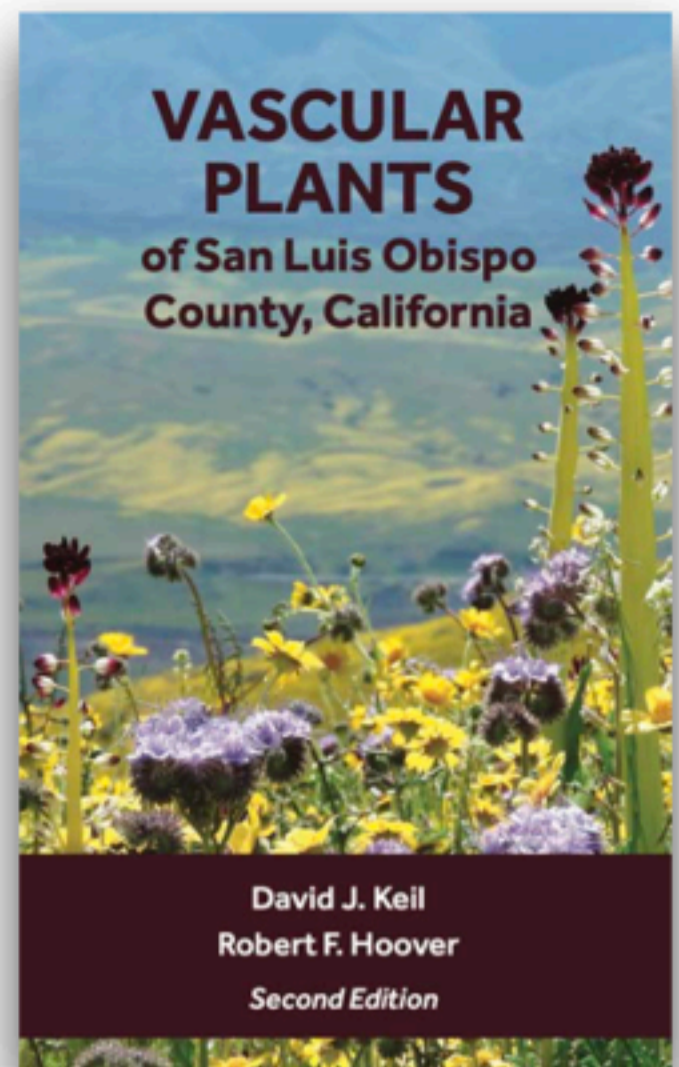
Thursday, April 6th: Field trip to **Arroyo de La Cruz and Northern Coastal SLO County** led by Dr. Keil

Friday, April 7th: Join the Cal Poly Field Botany class for a reunion field trip through the **serpentine hills of San Luis Obispo**, led by Drs. Jenn Yost, Dave Keil, and Matt Ritter.

Saturday, April 8th: Field trip to **Shell Creek and Carrizo Plain** led by Dr. Keil.

Saturday evening, April 8th: Join us at the **Cal Poly Plant Conservatory** for a book signing and open house. Dinner will be served with remarks via Zoom by **Dr. Peter Raven** and a presentation by Dr. Keil.

Books will be for sale and signed at the evening event. All are welcome and encouraged to join us. Details will be sent to those who RSVP using this [form](#) by March 15th. [Cal Poly RSVP](#)



www.pacificstreetpublishing.com



Serpentine Hills of Poly Canyon



Invasive Species Report- *Cakile maritima* Sea Rocket

Cakile maritima is in the Brassicaceae or Cruciferae (mustard) family. Brassica is based from Latin referring to cabbage. The older name, Cruciferae, means “cross-bearing” which is obvious when looking at the four-petaled flower. *Cakile* is from the Arabic qaqulla. Maritima means "of the sea." This annual plant grows on the coast forming mounds on sand near the shore. According to Robert F. Hoover in 1970 this is “Very abundant on beaches and dunes all along our coast. This native of Europe has become one of the most plentiful members of what I call the ‘Beach-Dune’ plant community, of all land plants, one of those which grows closest to the edge of salt water.” It is a smooth, succulent annual, with a slender or stout taproot. It has a branched stem which is prostrate or ascending, growing up to about 6–18 inches long. The long lobed leaves are alternately spaced on the stem. The shiny leaves are fleshy, green and tinted with purple or magenta. Blooming year round, the small flowers occur in shades of white, or pinkish-purple, with four petals usually measuring about one-half-inch across. Later it produces green maturing to brown fruits, with short, corky, stubby seed capsules. They contain two yellow or brown, smooth seeds. The seed oil contains a high level of erucic acid (erucic acid can have pathological effects on the cardiac muscle of several animal species, it may be converted into surfactants or lubricants, and can be used as a precursor to biodiesel fuel). Sea rocket is tolerant of salt spray and seawater inundation. The fruits float and are water-dispersed. Wind helps to push seeds onshore. *Cakile maritima* is present on the west and east coasts of North America. It is native to North Africa, Europe and western Asia. I’ve observed its suppressive capabilities as it seems other plants are not present with it. I’ve seen it replace a sandy slope full of *Abronia latifolia*. It is fairly easy to pull and a large infestation can be eradicated easily with a low dose of herbicide.

Mark Skinner



Photos: Mark Skinner



Spring Plant Sale is Happening Soon!

Beginning Thursday, March 16, 2023



PRE-ORDER YOUR NATIVE PLANTS
FROM A HUGE SELECTION OF OFFERINGS
ON OUR CNPS-SLO WEBSITE
<https://cnpslo.org/shop>
(ONLINE ORDERING ENDS 3/30)



PICK-UP PARTY AND ADDITIONAL PLANTS FOR SALE
SATURDAY April 1, 10:00 – 2:00
Pacific Beach School Parking Lot
11950 Los Osos Valley Road, SLO



Plant Identification

In the Field

- * Workshop presented by CNPS SLO Chapter
- * Improve your plant keying skills!

May 20, 2023

8:30 am – 1:00 pm

Location TBA

www.cnpslo.org for more information and registration (opens in April)



Save the Date: May 20, 2023: CNPS-SLO Field Plant ID Workshop

Local botanists Kristen Nelson and Dena Grossenbacher will lead a field workshop aimed at helping biologists improve their plant keying skills. Participants will key plants in the field to family, genus and species using either the Jepson Manual or the new edition of the Flora of San Luis Obispo by Dr. David Keil. This is an intermediate-level workshop aimed at biologists who have experience and/or training in plant taxonomy and keying out plants but need some brushing up or help with our local flora(s). More information and registration will be available on the website in April..

An Art Show of Interest

San Luis Outdoor Painters for the Environment (SLOPE) and The Land Conservancy of San Luis Obispo County announce "Colors of Conservation" Spring 2023, an annual exhibit of original landscape paintings from local artist members of SLOPE. The show will be held at The Octagon Barn, 4400 Octagon Way, San Luis Obispo, CA 93401 from Friday, March 3, 4:00pm - 7:00pm and Saturday, March 4, 10:00am - 4:00pm. Original paintings and prints will be available for sale. A portion of art sales will benefit The Land Conservancy. Enjoy live artist painting demonstrations at the Saturday event. Participating SLOPE artists are Dennis Curry, Jan French, Dotty Hawthorne, Sandi Heller, Daniel Jones, Joe McFadden, Laurel Sherrie, Jim Tyler, and Emeritus SLOPE Guest Artist, Bruce Everett.

San Joaquin Valley Chapter of the Wildlife Society Natural Communities Conference

Thursday, March 30, 2023

Hodel's Country Dining Restaurant Liberty Hall Meeting Room

5917 Knudsen Dr., Bakersfield, CA 9:00AM - 5:00PM (Check-in starts at 8:00AM)

The San Joaquin Valley Chapter TWS Natural Communities Conference is back in person! This one-day conference is an opportunity for biologists conducting research, management, regulation, and conservation activities for natural communities and biota in the San Joaquin Valley Chapter area to network and exchange information, ideas, results, and progress of their work. Presenters will be giving 20-minute talks, 5-minute Quick-Talks, or presenting a poster. In addition to the presentations, there will be a photo contest, silent auction, and field gear exchange. Breakfast, lunch, and afternoon snacks will also be provided. The formal announcement with further information, including registration, will be emailed and will be on our chapter website <https://wildlife.org/san-joaquin/> and social media platforms soon. Anyone is welcome to attend. Hope to see you there! For questions or to submit an abstract, contact Erica Kelly at ekelly@esrp.org.

On the Seedy Side

It seems early to be talking about seeds. I just want to issue a reminder that all the seeds that have been available at the seed exchange and the plant sales have been collected locally by members of our chapter. It would be wonderful if more would get involved. Some collect just one species, others multiple. It just takes a bit of being observant and ready to collect when the seed is ripe. There is information available on our website if you are interested in reading about seed collection.

Not all the seeds that are collected are from plants that are local to our area, but they are all native somewhere in California. Some seeds are very challenging to germinate, others quite easy. It is very fun to try. Having a seed exchange and/or sale gives others the opportunity to experiment with seeds that they would otherwise have no access to.

I feel obligated to remind everyone that we do not collect from rare plants. You also need permission to collect on property that is not your own.

Happy observing and, hopefully, collecting.
Marti Rutherford

Colorful California Native Plants for Your Garden

Verbena lilacina ('De La Mina' cultivar) and *Gambelia speciosa* (Island Snapdragon) are two good selections to add color to your California native plant garden.

V. lilacina (VL), cultivated by the Santa Barbara Botanic Garden, has become very popular in the nursery trade. Originally from Cedros Island off the west coast of Mexico, the cultivar (VL)('De la Mina') seems to have it all. It blooms profusely 8-12 months of the year depending on location, it's evergreen, pest free, can tolerate a low temperature (26 F), loves a sunny location, requires occasional watering, smells good and butterflies love it. It grows to 2-3 feet and can easily be pruned back to 4" in the cooler months.



Photo: Dick Culbert Wikipedia

Gambelia speciosa (GS)(aka: *Galvesia speciosa*) is another tough and colorful plant. It's also found growing naturally on San Clemente Island, Santa Catalina Island and as a disjunct group on Guadalupe Island. Recognized for its crimson red one inch long tubular flowers, it tends to attract hummingbirds. Like (VL), (GS) is an evergreen, tolerates many soil types, requires minimal water, is mostly pest free (bacterial, fungal infestation), loves sunny locations, but can do well under oaks, can withstand cold temps (28 F) and is easily propagated via cuttings. (Cut 2" piece, diameter 1/8", place in moist sand mix.) (GS) grows to 3-4' and can be pruned back to 12".



Photo: Melburnian Wikipedia

Both plants will be available at our April 1, 2023 plant sale.

John Doyle

Where to Purchase a *Wildflowers of San Luis Obispo* book

Have you heard the buzz among plant people that all the rain in January may lead to a great wildflower season? Are you tempted to take a friend or relative on a walk to see what all the fuss is about? Want to gift them a remembrance of the occasion? Want to encourage them to do it again? Consider a gift that will keep the flowers blooming, our *Wildflowers of San Luis Obispo* book.



It is available in a number of stores in the county. In the City of San Luis Obispo, The Mountain Air, Crushed Grape, Lincoln Market & Deli, History Center of SLO, Growing Grounds Downtown, and the SLO General Store; in Morro Bay, at the Coalesce Book Store and MB Natural History Museum; in Los Osos, Volumes of Pleasure Bookshoppe; in Cambria, the Garden Shed; in north county, Paso Robles General Store; in south county, at Monarch Books in Arroyo Grande and the Dana Adobe Cultural Center in Nipomo. Or, order it from our web site book store (<https://cnpslo.org/shop/>) and we'll mail it to the address of your choice – a great surprise!
LC

Continued Request for Photographs for the Chapter Photo Collection

Still working through Asteraceae, and here is the March 'ask': *Micropus californicus* var. *subvestitus*, *Microseris acuminata*, *Microseris bigelovii*, *Microseris campestris*, *Microseris paludosa*, *Monolopia gracilens*, *Monolopia major*, *Pentachaeta alsinoides*, *Pentachaeta exilis* subsp. *exilis*, *Pentachaeta fragilis*, *Pluchea odorata* var. *odorata*.

LOOKING BACK. WHAT THE OLD FEBRUARY NEWSLETTERS TELL US

Looking Back 10 years to March 2013, we were keeping a careful eye on westward expansion of oil fields in the central valley onto the eastern slopes of the Temblor Range, and vegetation clearances at Camp Roberts with rare plant impacts.

Looking back 15 years to March 2008, we commented on the Supplemental EIR on Santa Margarita Ranch plan to add housing, lent support to an attempt to purchase Wild Cherry Canyon. which sadly, failed. John Muir Laws gave a botanic illustration course.

Looking back 20 years to March 2003, we were examining the U.S. National Forest's planning for four southern forests.

Looking back 25 years to March 1998, we were evaluating the North Coast Plan with concern for coastal bluff plant communities. We were annoyed by the Board of Supervisors passing a very weak Tree Ordinance.

Looking back 30 years to 1993, we were concerned with oak regeneration, and participating in a U.C. Davis-based program to resolve land use conflicts concerning the sustainability of oaks.

Looking back 35 years to 1988, we provided information on how to get to significant wildflower locations, and were preparing for our fund-raising "Wildflower Weekend".

And in every one of these newsletters, we see drawings by Bonnie Walters illustrating a plant description by Dirk Walters.



Our Book and T-shirt Sales Table Needs a Manager



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 April 1st Plant Sale at Pacific Beach High School in San Luis Obispo.

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

Lichen of the Month: *Polycauliona (Xanthoria) tenax*



Polycauliona is a genus of lichenized fungi in the family Teloschistaceae. Common names include orange lichen and orange sunburst lichen. They can be identified by their characteristic squamulose morphology with distinctive "fairy cups". The photograph is taken at Caliente Peak, where the lichen is found on tree branches rather than the usual rock. Oak trees in the eastern part of the county may carry a lot of this lichen, such as at Shell Creek.

Photos: D. Chipping

Branch Elementary School Children Leave the Classroom

On February 9, 2023, six classes of students from Branch Elementary School in rural Arroyo Grande took a nature walk on the property adjacent to their school, and CNPS-SLO was there to help lead the way. Working with Sergio Corona-Munoz of local non-profit One Cool Earth, Bill and Diana Waycott, Zach Tanner and Susi Bernstein had the joy of meeting students (ranging from kindergarten to sixth grade) and introduced a few concepts about native plants, riparian corridors and watersheds to them.

The highlight of the field trip appeared to be the cow bone remains down by the creek and picking Bermuda buttercup/sour grass (*Oxalis pes-caprae*) to chew on, but we did also get traction on learning some native plants common to the area. We looked at the difference between male and female arroyo willow catkins (one boy greeting the male willow branch with a friendly “hello brother”); enjoyed the smell of hummingbird sage and California sagebrush on our fingertips; marveled at the galls in the coast live oaks; and spent some moments quietly listening to the birds and sound of water rushing in the creek. It was an exhilarating and satisfying experience, and well-received by the teachers and students. There will likely be more opportunities like this in our Chapter’s future. If you would like the chance to be part of our effort to expose children to nature, please contact us and we’ll put you on our list of helpers. No experience required.



Photos by S. Corona-Munoz (One Cool Earth)

CNPS and One Cool Earth

Text

In a CNPS letter to One Cool Earth (OCE) in support of OCE’s grant application to fund their proposal to fund a San Luis Obispo County Environmental Education Coalition, Chapter Education Committee Co-Chair Susi Bernstein wrote: *CNPS and One Cool Earth have had a shared partnership over the years. We are both committed to supporting the local schools by working with teachers and staff to bring hands-on experiences to students. These efforts are manifest in the form of school garden programs, plant propagation workshops, native plant education, and field trip programs. In 2016, CNPS acknowledged One Cool Earth with our Community Recognition Award for their outstanding work with the schools of San Luis Obispo County. Currently, our cooperative efforts are expanding through joint school presentations and native plant garden programs.*

The San Luis Obispo Chapter of CNPS fully supports One Cool Earth’s application to fund a San Luis Obispo County Environmental Education Coalition. We believe such a coalition would help to serve our CNPS mission of education, as it would ultimately lead to increasing environmental education (EE) in the classroom with topics that could include an introduction to native plant species and plant communities, in addition to climate, watershed, ecosystem, wildlife and general science education. We believe having exposure to these types of topics early on in life is crucial.

We understand that the coalition will work to:

- *Advocate with a unified voice for policies that support environmental education*
- *Support equity in EE by facilitating presentations, trainings, professional development and resources that promote thoughtful and appropriate EE for all*
- *Coordinate between EE providers to create efficiencies in program development and delivery that increase reach and impact*
- *Coordinate between EE providers and local schools, streamlining EE connections within the classroom*
- *Collaborate with schools to provide capacity building through professional development, expertise, and teaching resources*
- *Leverage funding by collaborating to increase the competitiveness of funding requests and grant proposals*

CNPS holds the staff of One Cool Earth and the work they do in high regard and will continue to support their endeavors going forward. We applaud their efforts to expand operations to new schools in a wider area, knowing that with increased engagement in the experience of nature, children as individuals and the society as a whole will develop in a more holistic way. A San Luis Obispo County Environmental Education Coalition will help to make increased exposure to nature in schools possible. CNPS anticipates participating as a member of this coalition by assisting with classroom instruction related to native plants.

Adelaida Bicycling Field Trip Report, Feb 11, 2023

Seven hardy souls braved hills and the possibility of rain showers on a Saturday morning in February. The trip began with partly-sunny and cold weather as we coasted down a steep hill with California peony blooming along the roadside. As we pumped up hills and coasted into small valleys, holly-leaved redberry and creeping snowberry were showing their new green foliage. Valley Oaks and California Sycamores displayed their bare splendor in deciduous winter stage. Brown dogwood, red and arroyo willows graced the creek sides with their colorful, bare stems. A last treat for the climb out of the canyon was profusely flowering manzanitas and a shy hound's tongue with a single flower. We got a little wet on the last leg back to the cars but this 10-mile round trip was a beautiful and enjoyable experience. The three plants shown below are California peony (left), hound's tongue (right), and bigberry manzanita (center). (photos by David Krause)



Conservation Update

- At press we are still waiting for the release of the Dana Reserve EIR, so nothing new to add this issue. There is a growing tide of opposition from residents in areas close to the project.
- While the last Board of Supervisors approved the disastrous Planting Ordinance for the Paso Robles Groundwater Basin, which we strongly opposed, the current Board has reversed that Ordinance. However neither the old nor the new versions actually decrease pumping, and thus the current overdraft and risk to surface waters and riparian communities is still not diminished. It will be interesting to see how much well recovery we get after the big rains.
- The U.S. Fish and Wildlife Service is updating its files in regard to Chorro Creek bog thistle and Morro manzanita, but no major threats have come to our notice. However, we have no access to sites bog thistle sites in the vicinity of San Simeon Creek.
- The New Times Feb. 9th public notices have three Federal Energy Commission postings for proposed pumped storage reservoirs, pipeline and power lines for projects at Whale Rock, Lake Nacimiento, and Twitchell Reservoir. These are notices for Preliminary Permit Applications.

David Chipping

Web Site Update

We have a new Event Calendar on our website. Find out about upcoming field trips, bike rides, workshops, membership meetings (and upcoming annual picnic and book signing). See the quick summary of events on the top left-hand side of the homepage at <https://cnpsslo.org>, then click the [All Events Calendar button](#) to get a longer list of events and details for each event. The Event Calendar allows for new features like quick links to maps of the starting location, RSVPs, searches, and contact information for the event organizer, and the information can be viewed on a cell phone.

VOUCHERED MOSSES FROM LOS OSOS OAKS RESERVE

The searchable database of the Consortium of North American Bryophyte Herbaria yields eight species of moss on the Reserve. Here are photos of six of them. *Grimmia lisae* and *Orthotrichum coulteri* are not shown, the last seemingly without photographs.



Rosulabryum torquensis
On sand substrate in full shadow
Photo: Dror Melamed (Wildflowers of Israel)



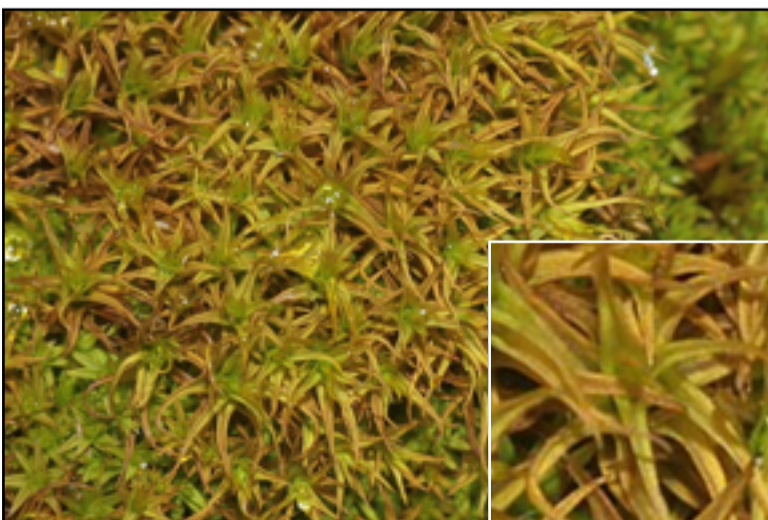
Funaria hygrometrica
On sand substrate in full sun
Photo: Wikimedia Commons



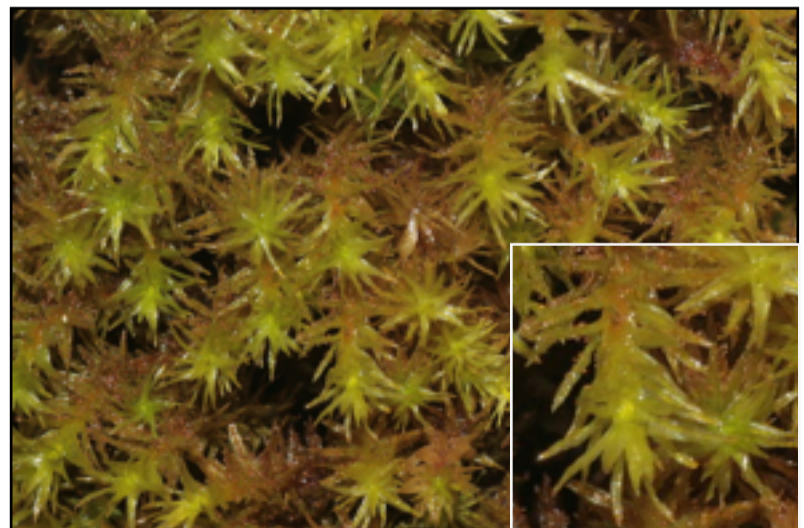
Syntrichia ruralis
On oak trees
Photo: Darkone (Wikipedia Commons)



Timmiella anomola
On shaded sand substrate
Photo: Ron Vanderhoff (CC BY-NC 4.0)



Didymodon vinealis
On sand substrate in full sun
Photo: Hermann Schachner (Wikipedia Commons)



Orthotrichum leyelli
On oak
Hermann Schachner (Wikipedia Commons)

Last Month Chorro Creek Bog Thistle was the Story. This Month it is Chorro Creek Itself

The Morro Bay National Estuary in its January 2023 Field Updates provided an account of the extreme rain events of January 2023. They reported that the Morro Bay watershed received 9-11 inches of rain between January 1st and January 24th, and that the stream gauge at Canet Road reached the astounding height of 22.95 feet and a flow rate of 12,456 cubic feet per second on January 9th.

You might think that such astoundingly large flows would quickly fill Morro Bay with sediment, but luckily the Coastal San Luis Resources District restored a willow woodland and thriving riparian plant community on what had been agricultural fields, and so much of the sediment dropped out in the thick willow thickets as the water decelerated. The 129 acre Chorro Flats Restoration Project is considered a great success, even though it suffered early setbacks when a flood washed away many of the early native plant plantings.

Unfortunately, a similar riparian restoration program opposite Hollister Peak, called the Chorro Creek Ecological Reserve, suffered scouring of the lower flood plain, washing away many of the recently planted native species in the January storms. This setback is similar to that experienced further to the west at Chorro Flats.



The scoured floodplain of Chorro Creek Ecological Reserve Photo: Morro Bay National Estuary Program



Chorro Creek Ecological Reserve Photo: Morro Bay National Estuary Program

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

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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, *Artemisia*; the quarterly *Flora*, which gives statewide news and announcements of the activities and conservation issues, and the chapter newsletter, *Obispoensis*.



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