

Obispoensis

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

Proposed Removal of Over 3,000 Oaks on Nipomo's Dana Reserve



October 2023

Dana Reserve's Unprecedented Destruction of Oak Woodland

The cover of this edition of Obispoensis shows both the existing condition and the proposed plan to remove most of the oaks on the Dana Reserve site and replace them with housing. Your SLO Chapter conservation committee sent in extensive comments on the project's Environmental Impact Report and partakes in public meetings. Unfortunately, the SLO County Planning Dept. has recommended approval of the project to the Planning Commission, apparently on the incorrect opinion that the need for more housing allows housing to sweep aside environmental concerns. CNPS does not deny that there is a critical shortage of housing, but the new housing should not be in this configuration on this site. The recent history of the immediate area shows that the hundreds of trees removed by the County for the adjacent Willow Road Extension Project have not been mitigated due to the abject failure of the trees to survive at an unsuitable site east of Nipomo. The County has made no effort to follow up on the success of such mitigation.

The project turns the County's Oak Woodland Ordinance into a joke. The project proposes the destruction of more than 3,000 mature coast live oak trees and associated habitat, as well as several other rare or unusual plant communities in the Nipomo area, with no real mitigation for these losses. If this destruction is allowed under the Ordinance, it sends the signal that all one needs is a permit—handed out on the flimsiest of circumstances—to decimate any native woodland or forest in the County. We believe that approval of this project might in fact mean the end of the Ordinance as any sort of protection for the County's native forests and woodlands, since it would be very difficult to tell another project sponsor 'no' when this one has been told 'yes'. All one needs is a Specific Plan to void the applicability of the Ordinance.

There is little local support for the project, and the citizens group Nipomo Action Committee is protesting the project on the basis of the impacts on local resources, such as emergency services, school capacity, traffic, and the quality of life. However, voices protesting the severe environmental impacts have been, up to this time, a minority. The SLO Tribune newspaper has cast protests as a NIMBY action by the 'haves' against the 'have-nots'. By including a relatively small number of housing units to be developed by People's Self-Help Housing, while placing market-priced expensive housing where the bulk of the oaks exist, the project, and apparently County Planning, are running under the cover of SB 330, the Housing Accountability Act. This "*prohibits a local agency from disapproving, or conditioning approval in a manner that renders infeasible, a housing development project for very low, low-, or moderate-income households or an emergency shelter unless the local agency makes specified written findings based on a preponderance of the evidence in the record.*" This appears to be a very big rug under which to sweep environmental considerations.

However, in this case, SB 330 cannot be considered as the broom. The Bill's language goes on to clearly state that it does not apply if the project does not comply "*with applicable, objective general plan and zoning standards and criteria that were in effect at the time of the application*". The Dana Reserve Project conflicts with several elements of the County General Plan. The FEIR and the Statement of Overriding Considerations clearly list the following: Air Quality Plan, Regional Transportation Plan, Sustainable Communities Strategy to Reduce Greenhouse Gases, Land Use Planning Policy L-3 of the County Clean Air Plan, several parts of the Conservation and Open Space Element, Parks and Recreation Element, Policy 3.8 of the Inland Framework for Planning, and several others. The EIR presents substantial evidence that would allow a reasonable person to conclude the project is inconsistent with these plans and policies, in addition to State CEQA Guidelines 15064.3 (vehicle miles traveled). The project is fundamentally and clearly inconsistent.

Even the application to "*very low, low-, or moderate-income households*" hardly applies to the bulk of the proposed housing mix. The market-rate housing would not be affordable to most current SLO County residents, where only 19% could afford the median-priced home. It is clear that with the inclusion of some low-cost housing in the mix, the developer is proposing to destroy the oak woodland with market-rate housing that would never have been permitted otherwise.

There are other issues, such as the destruction of 96% of a last remnant of Burton Mesa chaparral plant community, in Nipomo with no identified mitigation. County Planning ignores the impact of oak removal on our general environment, such as carbon sequestration, global warming, provision of habitat for a vast list of life forms, (e.g., birds, fungi, lichen, salamanders, local climate moderation and so on).

And so... reader,... PLEASE write the Planning Commission and ask that the project be halted in its current form. Also stress that there are some considered alternatives to the current design that allow housing on the eastern portion of the property, leaving most of the oak woodland intact. This is not "all or nothing". **IF YOU WANT A LIST OF POSSIBLE POINTS TO INCLUDE IN YOUR LETTER EMAIL ME AT dchippin@calpoly.edu AND I WILL SEND YOU ONE.**

So Please...Write as individuals or families to the SLO County Planning Commission via their web site to the Commission at the following address: Ysabel Eighmy <yeighmy@co.slo.ca.us>. Please do not write as representing CNPS, as our letter is already submitted. Even better: Turn out to the Planning Commission Study Session on September 28 at the County Supervisors Chambers. Save the Oaks signs welcome. The meeting where approval/disapproval will be made is October 23/24 at the same site.

Special Thanks to Melissa Mooney, Neil Havlik and Bill Waycott for their very great contributions to our response: David Chipping: Acting President, Conservation Chair

Chapter Monthly Program

October 5th San Luis Obispo Vets Hall

(corner of Mill St. and Grand Ave)

Keying Workshop and Seed Exchange 6pm, Social Gathering 7pm, Chapter Business:
Program Starts 7:30pm.

Kristen Nelson
CNPS Rare Plant Program

Turning Priorities into Projects and Connecting with Chapters

CNPS Rare Plant Program Manager and longtime SLO Chapter member Kristen Nelson will present on the ongoing and upcoming projects being led by CNPS rare plant program staff. This will include updates from across the state, as well as work going on locally - including several exciting and interesting updates from the 2023 field season. There are also several new projects on the horizon that Kristen will discuss, along with ways to support or get involved.

Kristen is the recent past Vice President of the San Luis Obispo chapter, and continues to serve on the board as the rare plant chair. She has a B.S. in environmental management and a M.S. (biology), both from California Polytechnic State University in San Luis Obispo. She has worked as a professional botanist and ecologist for more than ten years across private, government, and non-profit sectors. In her current role on staff with

CNPS, Kristen oversees and coordinates field-based projects, including the Rare Plant Treasure Hunt, the California Plant Rescue, and other special projects within the rare plant program.

Photos: All by Kristen. (Bottom left) What is she looking at?; (Center) *Castilleja ambigua* ssp. *insalutata*_Fort Ord; (Right) Seed collected from *Cirsium occidentale* var. *compactum*



We are not doing a 'bring a dessert' this year... unless you really, really want to....

...and
right
before the
meeting...

...and the
excitement
never ends,
see next
page...

CNPS-SLO Mini-Keying Workshop: **Willows!**

- ❖ Free pre-meeting plant keying workshop
- ❖ Facilitated by Drs. David Keil and Dena Grossenbacher
- ❖ October 5, 2023, 6-7 pm*
- ❖ Learn about key characteristics to identify willow species
- ❖ Practice keying willows collected from our area
- ❖ Bring a copy of Dr. Keil's new [flora](#) and a 10x hand lens**

* Please arrive a few minutes early so we can start promptly

** Cal Poly Botany Dept will provide some loaners

The Flora is temporarily out of print



Seed Exchange Information

October 5th, 6pm (just before the chapter meeting)



Please bring your seeds for sharing, bulk packaging is fine. I will bring envelopes and pencils.

Cleaned seeds are preferred but not required. Packaging should be labeled with ID to genus and preferably species with location of collection.

If you would like to leave extra seed, I would welcome them for possible packaging for the November Plant Sale seed sales. You do not need to bring seed to participate in the exchange. The objective of this activity is to get native plants into our gardens.

Hope to see you there,
Marti Rutherford

Horticulture Now

Welcome to Horticulture Now. A new column featuring articles about California native plants in the garden setting. Some of these articles are newly written and others will have been previously published. Some months the column may feature a guest author. This month's article features *Salvia mellifera* (Californian Black Sage). Hope you enjoy it.

Gardening with California Natives

Always present but seldom dominant, sharing its place among the other coastal chaparral plants. Branches covered with abundant pale blue flowers, calling out to all, "see me". This month's article features *Salvia mellifera* (Californian Black Sage). Origins of its common name are unknown, possibly coming from the dark green color of its leaves, especially during drought years. It would be hard not to notice its green leaves while walking the trails of the Montana de Oro State Park. Frequently found growing with its other perennial friends, *Baccharis pilularis* (Coyote Brush), *Acmispon glaber* (previously *Lotus scoparius*) (Deerweed or California Broom), and *Lupinus chamissonis* (Dune Bush Lupine). Sometimes referred to as a pioneer species, it can quickly re-establish disturbed areas making it an ideal plant for revegetation projects.

Black Sage is an excellent source of food and shelter for a host of birds, mammals and insects, especially bees and butterflies. In fact, its species name, *mellifera*, means "honey-bearing" in Latin. Some of you have heard of Black Sage honey, known for its darker color and bold flavor. It's a delight. 2023 is sure to be a good year due to the heavy rains. Black Sage has a late blooming cycle which is beneficial for bees, and other insects, as well as hummingbirds, when other nectar sources can be scarce.

As Black Sage seeds mature and fall to the ground, California quail (*Callipepla californica*) and other ground birds gorge upon them. The Big-eared Woodrat (*Neotoma macrotis*) uses the soft wood to make their shelters which dot the landscape of the Montana de Oro State Park. Even Brush Rabbits (*Sylvilagus bachmani*) and Black-tailed Deer (*Odocoileus hemionus columbianus*) enjoy the fresh new foliage when the strong-smelling oil content is lower.

California native peoples had many uses for Black Sage. Here, locally, the Chumash people used it mainly for medicinal purposes. They made an aqueous solution by submerging leaves in salt water. This mixture was then placed in the sun for a couple of days to steep like sun tea. One would soak their feet in this solution to remove pain. Black Sage oil contains many different compounds, some of which are known to relieve pain. There are also accounts of the Spanish using the leaves and seeds during cooking to flavor a bland meal, somewhat like or akin to European cooking use of sage (*Salvia officinalis*).

Gardening with Black Sage can be very successful if planted in the proper location. It prefers a sunny to semi-sunny area and well drained soils. Drip irrigation will lead to an early decline of the plant and root rot. Once established, monthly summer watering will keep a lush appearance and prolong flowering. As mentioned earlier, browsing by deer and others is limited to new spring growth due to lower oil content. After flowering, remove seed heads to encourage more compact growth. Periodically a heavy fall pruning will stimulate regeneration of growth, similar to re-growth after a fire. Seeds are collected in July and are easy to germinate. Just sow in sandy soil, water weekly. Transplant directly into a selected spot.

In conclusion, *Salvia mellifera* is an important component of the dune chaparral community. Its ability to restore and revegetate disturbed area along with providing food and shelter to animals and insects earns its place as plant of the month. Best Wishes and Happy Gardening, John Nowak and Suzette Girouard

Fall Plant Sale is Happening Soon!

Beginning Saturday, October 21

PRE-ORDER YOUR PLANTS
FROM A HUGE SELECTION OF PLANT OFFERINGS
ON OUR CNPS-SLO WEBSITE
<https://cnps-slo.org/shop>
(ONLINE ORDERING ENDS 11/2)



PICK-UP PARTY AND ADDITIONAL PLANTS FOR SALE
Books, Tee Shirts, Posters, and More

SATURDAY November 4, 10:00 – 2:00
Pacific Beach School Parking Lot
11950 Los Osos Valley Road, SLO



Report from your CNPS-SLO Plant Sale Committee

Members: John Doyle—Chair, John Chesnut, David Chipping, Linda Chipping, David Krause, Melissa Mooney, Kristen Nelson, Mardi Niles, Cindy Roessler, Marti Rutherford, Zach Tanner, Dirk Walters, Bill Waycott, Judi Young

Mission—Conduct native plant sales twice a year. These events not only bring in revenues for the chapter but also provide educational opportunities about native plants for the public.

Accomplishments—In the last 12 months, the Plant Sale Committee has conducted two very successful sales, one in November and one in April.

Number of Plants Sold—1585; Number of Customers—156; Income Generated—\$10,894

Future Tasks—Continue twice-yearly plant sales for chapter fundraising.

Seed Collector's Quiz

It is interesting to see nature's designs. Can you name the plant that created these?





CNPS-SLO Field Trips – October 2023

October 1st, 2023, Sunday, 9:30 am, Manzanita Field Trip #6, Los Osos, CA.

Join us at the corner of Highland Dr. and Broderson Ave. in Los Osos (35.308747, -120.843166), for a walk through the unique coastal scrub community where the local endemic Morro manzanita (*Arctostaphylos morroensis*) is one of the dominant species. This is a rare plant (CNPS ranked 1B.1), that grows within a radius of Los Osos of roughly 3 miles. Unfortunately, 70% of its habitat has been eliminated through land development and Eucalyptus plantings. We will see other rare plants on this walk, as well as discuss the management requirements for maintaining a resilient habitat. Bring adequate water, snacks, and dress in layers for the weather; a hat and sturdy shoes is advised. Contact: Bill, 805-459-2103 for questions or information. For more information about this manzanita species, go to: <https://www.calflora.org/app/taxon?crn=584>



Photos by Bill Waycott: Above: Morro manzanita (*Arctostaphylos morroensis*) from Los Osos. Left: Sargent cypress (*Hesperocyparis sargentii*) from West Cuesta Ridge



October 29th, 2023, Sunday, 9:30 am, Manzanita Field Trip #7, West Cuesta Ridge, San Luis Obispo, CA.

Meet at the start of the paved road (TV Tower Road) off Hwy US 101, at the top of Cuesta Grade, heading west. (35.347018, -120.630359). This outing is a combination car and hike field trip. At the start, we will consolidate into fewer cars, then proceed toward the Botanical Special Interest Area, with stops along the way. At the Special Interest parking area, for those who wish to continue on-foot, there will be a hike from that area. We will see one manzanita species on this outing, the local endemic Bishop manzanita (*Arctostaphylos obispoensis* -CNPS ranked 4.3), and walk through the unique ridge-top vegetation adapted to serpentinite derived soils: the Sargent Cypress and Coulter pine forest, *Quercus durata*, and other chaparral species, etc., as well as see the rare San Luis Obispo sedge, 1B.2 ranking, (*Carex obispoensis*). Bring adequate water, snacks, and dress in layers for the weather; a hat and sturdy shoes is advised. Contact: Bill, 805-459-2103 for questions or information. For more information about this manzanita species, go to: <https://www.calflora.org/app/taxon?crn=590>



So... who was Sargent?

The tree bearing his name was named in his honor by Willis Jepson. Charles Sprague Sargent was the first director of Harvard University's Arnold Arboretum in Boston, Massachusetts, and held the post until his death. He became a renowned dendrologist and worked for the conservation of forests, wanting to maintain them in their natural state, and clashing with Gifford Pinchot and his policy for the sustained productive use of forest lands.

On checking the 1937 edition of Jepson's "*A Manual of the Flowering Plants of California*" for his entry on Sargent Cypress, San Luis Obispo's population was not mentioned, and possibly had not been identified at that time. The most southern populations he mentions are in the Santa Cruz Mountains.

FIELD TRIP REPORT

A visit to learn more about the diversity of manzanitas at Fort Ord, CA – Bill Waycott

A group of CNPS manzanita-philes joined together from the San Luis Obispo and Monterey Bay Chapters on Saturday, June 26, 2023, at Fort Ord, CA in Monterey County, as part of the Manzanita Hike series offered by CNPS-SLO. The purpose of our visit was to learn more about the diversity of manzanitas growing on the ancient sand dunes of that area. All together we identified six species of manzanitas, several of which were growing side by side, exhibiting a wide array of plant morphologies (see photos).



A. crustacea ssp. crustacea



A. hookeri ssp. hookeri



A. montereyensis

The visit involved two separate hikes into protected areas located on the old military base. Like the ancient dune ecologies of Los Osos and Nipomo, this area exhibited similar landscapes – coastal scrub vegetation with coast live oaks, sage species, and chamise. However, more than anything we have seen thus far in SLO Co., the diversity of manzanitas growing within a few miles of each other was impressive. At one spot during the first hike, we found ourselves surrounded by four species, all intermingled, growing happily together, looking vibrant and healthy (*A. hookeri ssp. hookeri* - 1B.2, *A. montereyensis*, - 1B.2, *A. pumila* - 1B.2, and *A. tomentosa ssp. tomentosa*).



A. pajaroensis



A. pumila



A. tomentosa ssp. tomentosa

Photo Bill Waycott

Cross-pollination between manzanitas can be found among species that belong to the same clade (a group of organisms believed to have evolved from a common ancestor), but rarely between clades. The fact that these four species do not appear to be recombining speaks to some of the barriers in this genus that keep them genetically separate, while living together.

During the second hike, we encountered three species (*A. crustacea ssp. crustacea*, *A. montereyensis*, - 1B.2, and *A. pajaroensis*, 1B.1), as well as a group of hybrid-looking plants we presumed to be a cross between *A. montereyensis* and *A. pajaroensis*. Both species have reddish leaves and stems, making the putative hybrids very attractive.

The Manzanita Hikes will continue in October. Please check the CNPS-SLO website for details



Photo: P. Furtado

Manzanitas and Allopatry

How Come Manzanita Species Grow Together Like This and Still Retain Species Integrity?

In a 2020 article in the American Journal of Botany by V. Thomas Parker, Christina Y. Rodriguez, Gail Wechsler, and Michael C. Vasey, titled *Allopatry, hybridization, and reproductive isolation in Arctostaphylos*, the authors suggest that much of the unusual amount of speciation is caused by geographic (allopatric) separation due to geographic fragmentation of original populations. This would be expected on coastal California where major climatic shifts marked the Pleistocene epoch. Genetics show that the genus can be divided into two groups, or clades, called the “patula” and “columbiana” clades. Vasey, in a 2007 paper in the ESA/SER Joint Meeting Abstracts, stated that : “Out of 62 species, 43 (69%) are found along the immediate coast within the summer fog zone or on fog-influenced uplands. Of 66 local endemics 50 (73%) are restricted to this narrow coastal zone. These macroscale patterns suggest an alternative hypothesis in which mild coastal climate and summer fog, rather than extreme drought and more intense fires, have stimulated evolutionary diversification in *Arctostaphylos*.” In the 2020 paper the authors conclude “When two taxa co-occur, the patterns are a diploid with a tetraploid, or two diploids from different clades. When three taxa co-occur, the pattern is two diploids from different clades and a tetraploid. Field and herbarium data both indicate flowering phenology is displaced between diploids from the two clades; one of the diploid clades and tetraploids overlap considerably. “

CONTINUED ON PAGE 10

A REVISED TREATMENT OF *MALACOTHAMNUS* (BUSH MALLOW) IN SLO COUNTY

Keir Morse recently published his PhD research on the genus *Malacothamnus* (the bushmallows). The 1st and 2nd edition Jepson Manual treatments did not recognize many *Malacothamnus* species and varieties that have a CNPS rare plant rank. Dr. Keir's research, partly funded by CNPS grants, was aimed at resolving questions related to which of these should or should not be recognized. The results of his research are available as a free, three-volume set of ebooks that are linked to on the *Malacothamnus* page of his website (<https://keiriosity.com/malacothamnus/>). Most people will only be interested in the third volume, which includes a summary of the genus, an identification key, photos, maps, and conservation assessments. Volumes 1 and 2 provide the evidence Dr. Keir used to make decisions on which species and varieties to recognize. Dr. Keir has also written a new *Malacothamnus* treatment for the Jepson eFlora, which will hopefully be online around the end of the year.

In total, Dr. Keir recognizes 29 minimum-ranked *Malacothamnus* taxa (both species and varieties) within 21 species. There are several changes relevant to San Luis Obispo County. The northern populations of *Malacothamnus davidsonii* are split off as the new species *M. discombobulatus*. This means that *Malacothamnus davidsonii* is now restricted to Los Angeles County. Another new species, *M. eastwoodiae*, is described from Vandenberg Space Force Base. And the species *M. gracilis* and *M. niveus*, which were lumped into *M. jonesii* without varieties in the Jepson treatments, are now recognized as varieties of *M. jonesii*.



Figure 43. *Malacothamnus discombobulatus* photos. A) Flower buds. B) Calyx and calyx bracts. C) Stem. D & E) Some variation in leaves. F) Whole plant. G) Inflorescences.



Figure 44. *Malacothamnus discombobulatus* photos. A) Calyx and calyx bracts in flower. B) Flower buds. C) Stem. D) Adaxial leaf surface. E) Whole plant. F) Abaxial (top) and adaxial (bottom) leaf surfaces. G) Inflorescence.



Figure 45. *Malacothamnus eastwoodiae* photos. A) Calyx and calyx bracts in flower. B) Flower buds. C) Stem. D) Adaxial leaf surface. E) Whole plant. F) Abaxial (top) and adaxial (bottom) leaf surfaces. G) Inflorescence.



Figure 37. *Malacothamnus davidsonii* photos. A) Calyx and calyx bracts in flower. B) Flowers in bud and fruit. C) Adaxial leaf surface. D) Abaxial (left) and adaxial (right) leaf surfaces. E) Stem. F) Full plant. G) Inflorescence.



Figure 38. Lectotype of *Malacothamnus davidsonii*. G400052893. Image courtesy of Harvard University Herbaria.

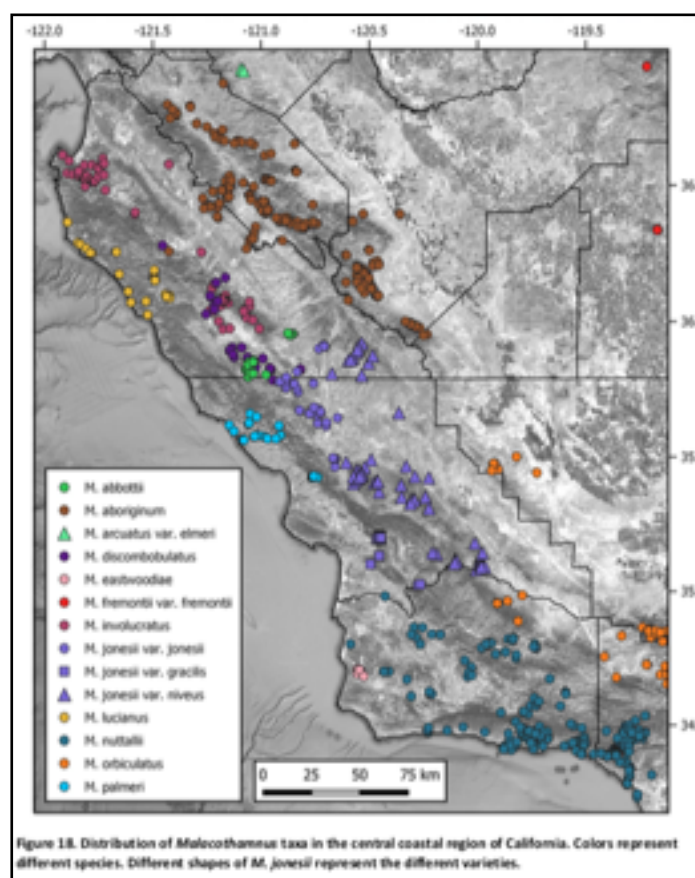


Figure 39. *Malacothamnus eastwoodiae* photo. A) Calyx and calyx bracts in flower. B) Flower buds. C) Stem. D) Adaxial leaf surface. E) Whole plant. F) Abaxial (top) and adaxial (bottom) leaf surfaces. G) Inflorescence.

Upper Left and Upper Center: *Malacothamnus discombobulatus*; Lower Left and Lower Center: *Malacothamnus davidsonii*; Upper and Lower Right: *Malacothamnus eastwoodiae*. All pictures from Keir Morse.



Keir Morse provided *Malacothamnus* species distribution maps for different areas of California. On the right you see the map for the Central Coast.



SEED COLLECTOR'S QUIZ
ANSWERS (see page 5)

Left: Interior membrane from the *Marah fabacea* (Manroot)

Center: Open seed capsule of a *Romneya* (Matilija Poppy)

Right Open seed capsules of *Gambelia speciosa* (Island Snapdragon) And, yes, almost all of the seed capsules take on this Halloween face look, on all of my plants anyway.

HELP NEEDED ON THE INVASIVE PLANTS FRONT LINE



VELDT GRASS
DIE! DIE! DIE!

Our Chapter, many years ago, had targeted weed-pulls in association with other organizations, or to protect rare plant locations. I am looking for a sturdy volunteer person(s) to form a chapter strike force of weed-assassins. For many years Mark Skinner has been our Invasive Plants chair, and he and I attended the meetings of the County Weed Management Area. Mark, however, also represents the Coastal San Luis Resource District, where he is actively employed on restoration projects, so I was the really the representative for our chapter. I have been missing their meetings lately, as I had nothing to report back to them on CNPS activities. I am also getting to an age where doing extensive weed pulls is less fun than it used to be. So I would like to find somebody to work alongside Mark on attending the Weed Management Area meetings, and also organizing targeted weed pulls.

David Chipping

SEE MARK SKINNER'S INVASIVE SPECIES REPORT ON PAGE 16

A Letter to CNPS from Zella Redus, Agricultural Inspector / Biologist. SLO County Department of Agriculture / Weights & Measures

I'm writing from the County of San Luis Obispo Department of Agriculture/Weights & Measures about our county's weed management area (WMA). As you may know, a WMA is "a local organization that brings together all interested landowners, land managers (private, city, county, state, and federal), special districts, and the public in a county or other geographical area for the purpose of coordinating and combining their action and expertise to deal with their common weed control problems" - California Food and Agricultural Code § 7272 (2013).

In other words, WMAs across California provide a format for a variety of interested parties to come together to discuss the coordinated effort that is required to effectively control invasive plants in a given area. This facilitates inter-agency collaboration and paves the way for more efficient work. It also strengthens connections between groups focused on the same goal: weed abatement.

San Luis Obispo County's Weed Management Area (SLO WMA), established in 2000, is co-chaired by members of The Land Conservancy of SLO County (LC SLO) and the county's Department of Agriculture. The SLO WMA holds quarterly meetings, open to all, to discuss weed management strategies within the county. In years past, the SLO WMA has enjoyed participation from many organizations, including the SLO chapter of CNPS. **Now, due to renewed funding and interest, we are expanding our outreach and would like to invite CNPS-SLO to participate in the SLO WMA once again.**

Meetings are held quarterly in October, January, April and July. In addition, the SLO WMA publishes a quarterly newsletter on weed-related topics from around the county, with contributions from a range of member organizations. You will find the most recent issue attached to this email. More information can be found at the SLO WMA web site: <https://www.cal-ipc.org/solutions/wmas/san-luis-obispo-wma/>

LOOKING BACK. WHAT THE OLD NEWSLETTERS TELL US

Looking Back 10 years to October 2013, we were studying proposed developments along Price Canyon that threatened Pismo Clarkia populations, and attended a scoping meeting for a proposed expansion of the ConocoPhillips refinery that would have impacted Nipomo lupine populations. We were surprised that State Parks introduced the issue of using the location as southern entrance to the dunes. (It is still included in their long term plans for the area.)

Looking back 15 years to 2008, work on a wildflower book for the area around San Luis Obispo was starting up, as did cooperation with the Friends of the Carrizo Plain on wildflower information for the Goodwin Education Center. Discussion on plans for Santa Margarita Ranch continued. (Dirk Walters subsequently completely updated the Goodwin plant ID books.)

Looking back 20 years to 2003, there was discussion of a proposed routing of a Nacimiento Water Project pipeline through Laguna Lake Park, and discussions concerning a native tree ordinance were going on. (The pipeline now runs across Rancho El Chorro Park.)

Looking back 25 years to 1998, the big issue was the proposed destruction of core Morro manzanita habitat through expansion of the Cabrillo Estates subdivision in Los Osos. (This has not happened, as yet, but land use issues are still not resolved.)

Looking back 30 years to 1993, members of our chapter were discussing the creation of education materials for classrooms. State listing of Morro manzanita under the California Endangered Species Act was denied. (It is still unlisted, as the State considers it to be sufficiently protected.) Unocal turned over lands on Burton Mesa to Santa Barbara County.

Looking back 35 years to 1988, the chapter was collecting signatures in support of “The Parks and Wildlife Initiative”. (It does not appear to have been successful, and does not appear on the 1998 or 1999 ballots.) We see Dirk Walter’s description of how plants are collected as the first appearance of a dot matrix printer input to a newsletter, all other input being hand-typed.



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.

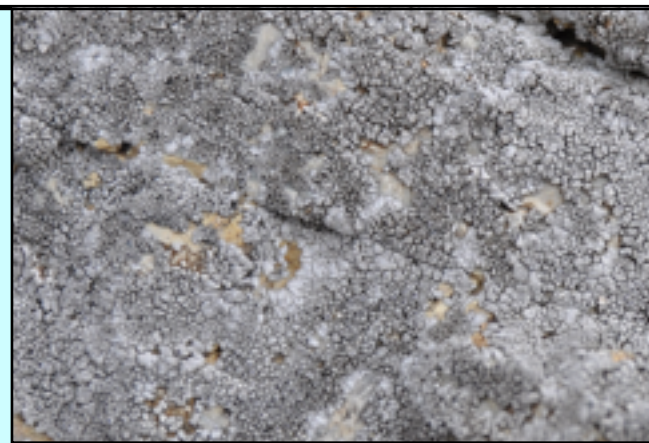
Our former sales manager and other volunteers are more than willing to help orient, answer questions and assist a new Manager(s). Want to experience the sales table in action? Join us for a few hours at the sales booth at the annual November 4th Plant Sale at Pacific Beach High School in San Luis Obispo.

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

Lichen of the Month: *Aspicilia pacifica* or Pacific sunken disk lichen

This crustose, rock-dwelling lichen was found on rocky outcrops in Estero Bluffs State Park, and is found along the coast of California and Baja California. It is common, and extends inland into the higher elevations of coastal mountains. It can range in color from gray to brown.

Photo: D. Chipping



Continued from page 7... MORE ON MANZANITAS AND ALLOPATRY

Noting earlier that there are two genetic groups, or clades, the ‘patula’ clade is represented in the county by *A. rudis* and *A. hookeri*, and the ‘colombiana’ clade by *A. morroensis*, *A. obispoensis*, *A. glauca*, *A. crustacea*, *A. tomentosa*, *A. pungens* and *A. hooveri*. On the Morro Dunes Ecological Reserve in Los Osos, *A. crustacea* and *A. morroensis* are both in the ‘columbiana’ clade, but maintain species separation by having very different flowering times and reproductive strategies (Burl resprouter vs. obligate seeder).

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. It is currently just under 100 GB in size. So far we have a folder for each plant in the Keil-Hoover flora, with over 2,100 species listed, including some horticultural escapees. Over 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, terminating in 'INFO' and which displays the copyright, so that photo donors who wish to place a more restrictive copyright can do so. The tag file also gives GPS, location information, date, and other photo metadata. Where we have no local contributions, we have added photos from sites like CalFlora that have author identification and the associated copyright which usually allows education use but not commercial use.

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. 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 are still 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 dchippin@calpoly.edu.

David Chipping: Archivist

Membership Corner



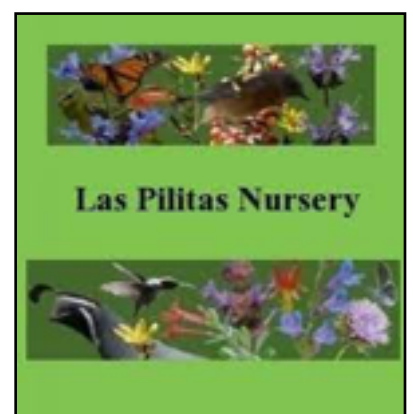
Welcome to our new and renewing CNPS-SLO members since May 2023, and thank you for your support! You are the lifeblood of our Society. For membership-related issues, please contact LynneDee (LynneDee@althouseandmeade.com).

Amy S., Amy P., Carolyn L., Chris W., Christine M., Dana T., Daniel V., Frank B., George T., Gordon N., Heather C., James P., Jan S., Jean B., Jean M., Jillian F., Joel G., John E., John T., Joyce B., Judy J., Karen O., Karen N., Katie G., Keenan H., Ken L., Leslie C., Mark M., Mary Pat H., Maureen H., Michael D., Nathan T., Nishanta R., Rebecca B., Robert S., Rocio M., Shasta B., Stephen P., Steve J., Tamara K., Trystin K., Valerie H., Valerie L., and Wendy M.



Las Pilitas Nursery to Re-open

Las Pilitas Nursery, a native plant nursery near Santa Margarita Lake, will be re-opening in October on Fridays and Saturdays 9am to 4pm. The Los Osos Valley Garden Club has arranged for a special nursery tour and native plant shopping trip to the nursery on Monday, November 20th from 9AM to noon and is inviting members of the CNPS SLO to join them. Nursery Manager, Penny Nyunt will provide answers to our questions and assist us as we choose the CA native plants we would like to purchase. The nursery address is 3232 Las Pilitas Road, Santa Margarita, CA 93453. Sign up is required here (<https://www.lovgardenclub.org/calendar>). Carpooling is highly recommended as parking is somewhat limited at the nursery. Wear closed-toed shoes, bring hat, layers, water and boxes for plants. Cindy Roessler



From Santa Margarita take Hwy 58 and continue straight on Pozo Road where Hwy 58 makes a left turn. Las Pilitas Road is the next road on the left along Pozo Road, right after crossing under a transmission line. The nursery is around 5 miles up the road; its GPS coordinates are 35.3712-120.4497

Student Adventures Studying Alpine Plants in Yosemite

On the highest peaks along the Sierra Crest, a garden of robust plants persist beneath the boots of peak-baggers and view-seekers. Making up for their short stature in charisma, many of these alpine species are long-lived cushion plants which have endured years of changing conditions. With temperatures increasing more quickly in alpine environments compared to lowland areas, alpine plant species may serve as a bellwether for the ecological effects of climate change. Yet the question remains -- how have Yosemite's alpine plant communities changed over time and more importantly, how will they continue to change into the future?

This summer, Cal Poly SLO undergraduates Eda McColl, Ben Sherman, Brooke Wallasch and Maddie Windsor joined Master's candidate Rachel Friesen in Yosemite National Park to resurvey 30 year old alpine vegetation plots throughout the park. This involved backpacking and day-hiking to Kuna Crest, Mono Pass, Vogelsang, and Mt. Dana, to relocate plots and quantify species abundance and identity to compare with historic surveys.

Looking to the future, Friesen and her crew also established new monitoring plots on Mt. Dana, following the GLORIA (Global Observation Research Initiative in Alpine Environments) downslope protocol. Using high-accuracy GPS units, they established 12 belt transects following elevation contours along the southwest slope of Mt. Dana. These new monitoring plots are more accessible than the previous vegetation plots, and encompass a ~1000 ft elevation gradient from treeline to ridgeline that will be informative in terms of the effects of climate change on alpine plant communities. These projects aim to inform adaptive management strategies within Yosemite National Park to preserve alpine plant communities threatened by climate change.



North County

California Native Plants for the Garden

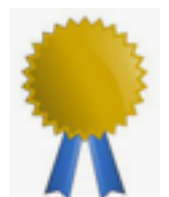
October 12th at 2pm at the Atascadero Library

This October, we will once again be talking about California Native Plants for the Garden. The presentation will take place on Thursday, October 12th at 2pm at the Atascadero Library. The presentation will include a discussion on which native plants work well in a garden setting, especially those inland gardens north of Cuesta Grade. A spring version of this presentation was given by Susi Bernstein and John Doyle last March. This time around, Zach Tanner and Cindy Roessler will be giving the presentation. Zach will focus on plant selection and other design considerations similar to what was discussed in last Spring's presentation. Cindy will focus on pollinator design considerations and how to best attract pollinators to a garden. We're hoping for a good turnout again, so please help spread the word and hope to see you there on October 12th.



A Call for Nominations-Community Award

Susi Bernstein



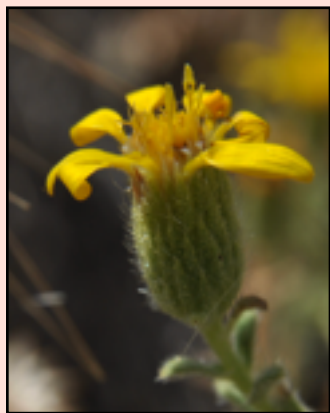
CNPS-SLO greatly values the individuals, organizations, and businesses that support and promote its mission in the local area. The Community Award is intended to highlight the important work that is conducted outside of the CNPS organization. For example, earlier this year we honored Beverly Gingg for her role in developing and leading the Learning Among The Oaks program which educates elementary school students in San Luis Obispo County about their local oak woodland community.

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 (susi.slo.cnps@gmail.com) 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 banquet that occurs in January of the coming year, or another suitable time in Spring when the CNPS-SLO membership is gathered together.

Telegraph Weed: *Heterotheca grandiflora*

This is the season for colorful shows of Telegraph Weed, *Heterotheca grandiflora*, on the older sand dunes of the Morro Bay and Nipomo areas, and elsewhere on disturbed ground in the western and central portions of the county. It is rarely found on the dry east side of the county. Although usually an annual plant, it sometimes flowers a second year. The plant is a valuable nectar source at a time when insects don't have a great array of choices. Sadly, many gardeners consider the native plant to be an aggressive interloper and pull it, and while it has weedy characteristics, it is a native species of ecological significance. The plant, as a member of the Sunflower family, has both ray and disk flowers. Stems and leaves are hairy and have sticky, strongly scented glands that both guard against insect predation and protect the plant from desiccation. The sticky oils were used by the Chumash to combat flea infestations, and were also said to have antibacterial and anti fungal properties. The common name is a bit of a puzzler, and the flowers are not exactly grand. (photo right D. Chipping)



There are two other species of *Heterotheca* in the county. Dr. Keil describes *Heterotheca sessiliflora* subsp. *echioides*, a perennial with hairy ray achenes, in contrast to the glabrous achenes on *H. grandiflora*. It can be found in the east county, such as the Carrizo Plain, and is not found on the coast. Due to the hairs, it is called Bristly Goldenaster. (photo left: D. Chipping)

A third species, *H. oregano*. Rayless Goldenaster, lacks ray flowers and is found sparingly in the northern part of the county, with an exception of a location near Pozo. (photo right: © 2017 Ken-ichi Ueda CC-BY-NC 4.0)

Invasive Species Report by Mark Skinner Common Reed *Phragmites australis*

Phragmites australis is in the Poaceae (grass) family. Poa is derived from Ancient Greek: πῶα for fodder. The genus *Phragmites* is from Greek phragma 'hedge', phragmites means 'growing in hedges'. *Australis* is from Latin meaning 'southern'. Common reed is a rhizomatous perennial aquatic grass that grows to 15-20 ft tall and forms dense monocultural stands in wetlands and estuaries, crowding out native plants. There are several biotypes of *Phragmites* including a native one. The non-native biotype was introduced in the 1800s from Europe from ships' ballast. There are detectable differences between the non-native and native *Phragmites*. Leaf sheaths of the non-native adhere tightly to the stem into winter, while the sheaths of the native one are loose and drop easily as the leaves die in the autumn. The non-native is vigorous and stem density is high, while the native biotype stem density may be lower, much less vigorous and allows for mixed communities to exist. *Phragmites australis* has large leaves 1.5 inches wide and up to 16 inches long. The inflorescence is up to 16 inches long and feathery, produced in late summer. Plants reproduce by seeds, rhizomes and stem fragments. Seeds are spread by wind and water. Seeds last less than two years and do not make a persistent seedbank. Each stem can grow 10 ft high, and rhizomes spread 16 ft in one season.



Photo Elizabeth Banda/NASA

This plant can be grazed by goats. Control is best achieved by mowing or burning in spring, followed by an application of aquatically usable glyphosate + imazapyr. It is crucial to remove dead biomass before spraying. It will take 3 seasons of repeat treatments before it is controlled.

The presence of dense stands of *Phragmites* makes unsuitable habitat for native fauna. One case in point is beaver habitat in the Salinas River watershed in North County. Volunteers with the San Luis Obispo County Beaver Brigade are troubled with the encroachment of invasives such as *Phragmites* and *Arundo donax* and would like to see them removed.



Photo Right: Public Domain

CNPS-SLO outreach at the Mariposa Festival

Susi Bernstein

CNPS-SLO participated in the first annual Mariposa Festival at Thursday Night Farmers' Market in San Luis Obispo on September 14, 2023. The event was organized to **celebrate the western monarch butterfly** and the start of **Hispanic Heritage Month**. At our booth, we displayed native plants that are known to be nectar sources for the adult butterfly, as well as examples of narrow leaf milkweed (*Asclepias fascicularis*) on which the butterfly deposits eggs and the developing larvae (caterpillar) uses for food. We even broke down and bought a non-native tropical milkweed (*A. curassavica*) from a local nursery as a way to discuss the detrimental impact this species has on the health and migration of monarchs. Thank you to Lynne Dee Althouse and Dr Francis Villablanca for the latest recommendation* about using tropical milkweed in the garden. There were many satisfying exchanges with the public during the evening about monarchs, the importance of native plants, and our upcoming November plant sale. An unexpected surprise was that our booth was prominently featured on KSBY's late evening newscast!

If you enjoy sharing your own experiences finding native plants in the wild or growing them in your garden, you might like to join us at outreach events where there's an opportunity to guide the 'uninitiated'. We could participate in more outreach events if there were more willing/available CNPS members to draw from. Please let us know if you are interested in giving it a try.

*Note: The recommendation is to not plant tropical milkweed; instead, choose a native milkweed species for your garden if you live at least five miles from the coast (north of Santa Barbara) where milkweed is naturally found. If you already have the tropical milkweed installed and don't wish to pull it out, you can cut it back severely in late September (no later than October), and keep cutting it back throughout the winter so that butterflies are not attracted to the leaves. In this manner, you are mimicking the phenology of native milkweeds that die back completely each winter. A summary about the risks of growing tropical milkweed is provided by the Monarch Joint Venture (link below), and is worthwhile reading. We passed out copies of this at the event.

https://mjv.nyc3.cdn.digitaloceanspaces.com/documents/OE_fact_sheet_Updated.pdf



Photos: (Top) the Display Table. Yes, that is eucalyptus lying on our CNPS table – to illustrate the roosting trees for monarchs in Pismo Beach; (Middle) Lauren Brown at the table; (Bottom) Dirk Walters, Susi Bernstein, and Lauren Brown talk to two interested people. Picture was captured from a [KSBY television coverage of the event](#). Monarch photo by John Jackman.

CNPS-SLO Recent DEIJ Outreach

In the last year, we've made some good initial contact with other people/groups interested in diversifying CNPS outreach, which resulted in a shared screening of Saging The World documentary with Sierra Club and bilingual fieldtrips with City of SLO and Latino Outdoors. Even our chapter's involvement in the Sept 14 2023 Mariposa Festival (co-sponsored by the Latino Outreach Council) may lead to future collaborations per a thank-you note we received today for our participation. One of the Latino Outdoors Board Members told me that she's interested in partnering with CNPS for future fieldtrips at Pismo Preserve, Fiscalini Ranch in Cambria, and along Salinas River in Atascadero.

Susi Bernstein

Last Sad Note



We note the passing of **Lionel (Dennis) Johnson** (1940-2023), in Carmichael, CA. He was a champion of native trees, dedicating himself to reforestation with oaks, leading to his founding of the non-profit **One Cool Earth** which remains active in supporting school gardens. CNPS recognized One Cool Earth at our January 2017 banquet: "In recognition of continued outstanding contribution toward the botany, preservation and enjoyment of San Luis Obispo's native flora."

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

Newsletter Editor David Chipping (805) 528-0914 dchippinATcalpolyDOTedu

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*.



San Luis Obispo Chapter of the
California Native Plant Society
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