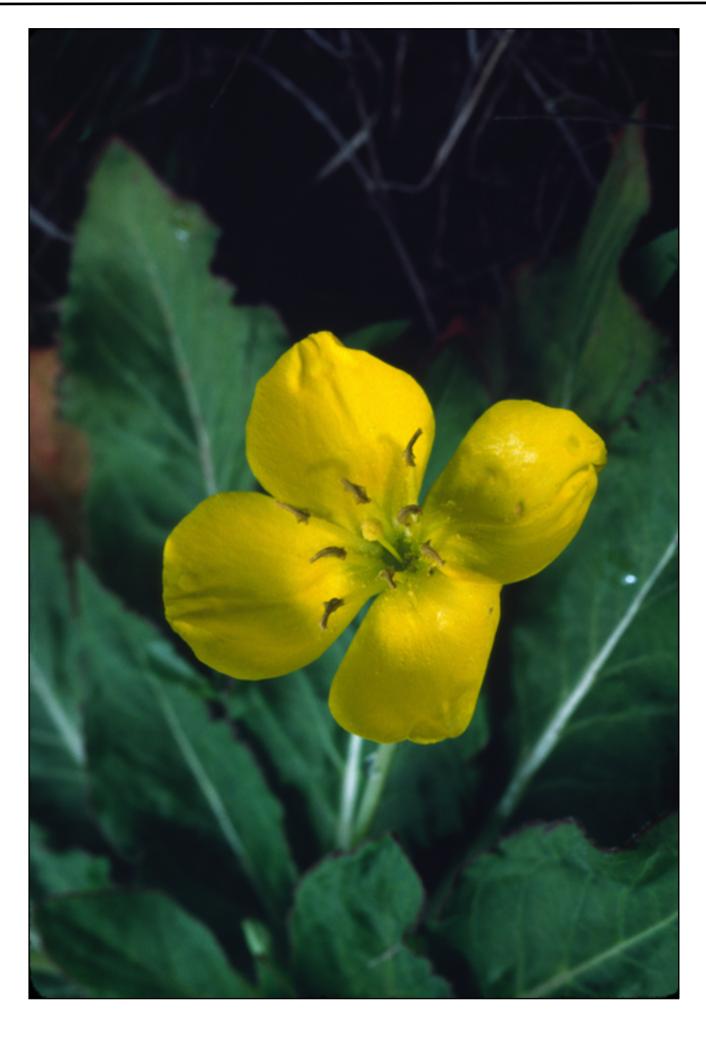
Obispoensis

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



April 2024

What is That Stalk?

Dave Keil

From February to May some grassy fields along the coast of San Luis Obispo County are dotted with the showy flowers of COAST SUNCUP (*Taraxia ovata*). This native wildflower occurs almost exclusively in sites that have never been touched by the plow. They were no doubt much more common in pre-European times. You may have seen them in open pine woods at the Fiscalini Ranch in Cambria, on one of our chapter's field trips to the coastal prairies north of Arroyo de la Cruz, or elsewhere along the San Simeon Coast.

The four-petaled flowers of this perennial wildflower arise from a dandelion-like rosette of wavy-margined strap-shaped leaves atop a carrot-like taproot. The flowers are elevated above the foliage on slender stalks up to 18 cm long. Each flower has two pairs of reflexed sepals and four spreading petals that are usually bright yellow. Eight stamens with alternately longer and shorter filaments join the sepals and petals on the rim of a floral cup (hypanthium) that surrounds a slender style capped with a ball-like stigma.

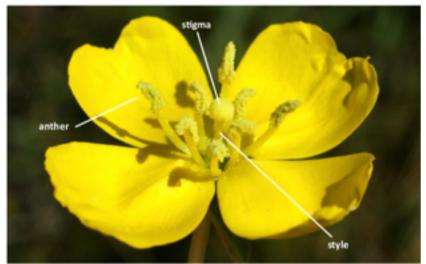
But where is the flower's ovary? In the EVENING-PRIMROSE FAMILY (Onagraceae) the ovary is always inferior. The bases (proximal parts) of the sepals, petals, and stamens are all fused to the sides of the inferior ovary. The sepals, petals, and stamens that we see in an open flower are actually just the tips (distal parts) of these floral structures. In between these free tips and the top of the inferior ovary is a hypanthium which is formed from the fused bases of the free tips of those outer flower parts. It turns out that to find the ovule-bearing ovaries of COAST SUNCUP flowers we have to look down at the base of the plant—among the bases



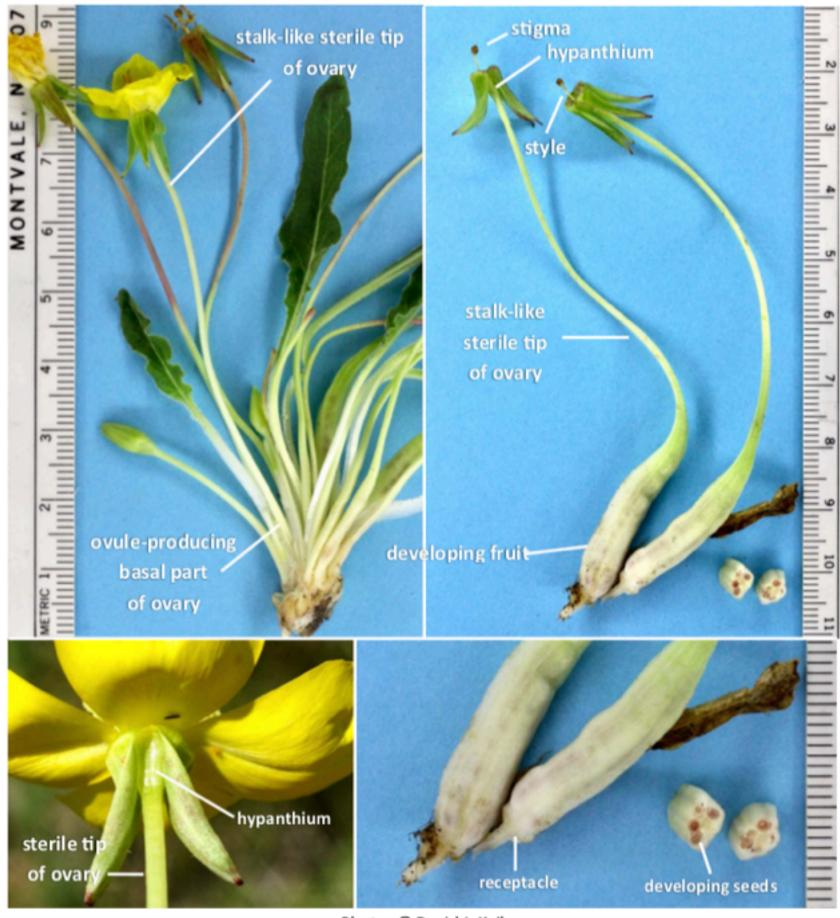


of the basal leaves, usually below the ground level. There we find the ovaries and the developing capsular fruits. So what are those stalks that elevate the open flowers up into the air? A flower stalk is ordinarily a stem tip. If a flower is solitary, we call its stalk a peduncle; if the flowers are grouped in a flower cluster (inflorescence) we call the stalks of individual flowers pedicels. But what are the stalks of COAST SUNCUP flowers? These stalks are actually long, skinny sterile ovary tips. Even though the flower seem to be long stalked, they are actually sessile! The receptacle, the basal part of the flower to which the ovary and outer flower parts are attached, is not stalked at all.

In the flower (right you can see the opened anthers of a COAST SUNCUP flower. Pollen grains are produced in these anthers and must be transferred to a receptive stigma for successful pollination to occur. If you look closely you can see a few fallen pollen grains on the petal bases. The flowers of *Taraxia ovata* are self-incompatible, meaning that pollen grains must be transferred from an anther of one COAST SUNCUP plant to a stigma in the flower of a different plant. This transfer is mediated by a small bee (*Andrena chalybea*) which specializes on these flowers.



If a pollen grain reaches a compatible stigma it germinates and begins an amazing growth. A hollow pollen tube emerges from the pollen grain, penetrates the stigma, and begins to grow downward through the style. Within the pollen tube is a tube nucleus, which leads the way, followed by two sperm nuclei. Nutrients that enable the pollen tube to grow are supplied by the cells of the stigma and style. The tube grows downward through the style and reaches the base of the free part of the style, which can be as much as 11 mm away. But the tube doesn't stop there; it keeps growing downward through the elongated sterile ovary tip, eventually reaching the ovule-bearing part of the ovary, as much as 180 mm further along. And some of the ovules are another 20 mm further away than that. FINALLY the pollen tube pokes its way into one of the ovules and delivers its two sperm nuclei, and a remarkable process called double fertilization takes place, a necessary precursor in all flowering plants for the development of an ovule into a seed. The pollen tube is a single, tubular cell, which in COAST SUNCUP can be more than 20 cm long! For every seed that develops in a suncup capsule this process is duplicated, and a large individual may produce 50 or more flowers in a season. That's a lot of long, skinny cells!



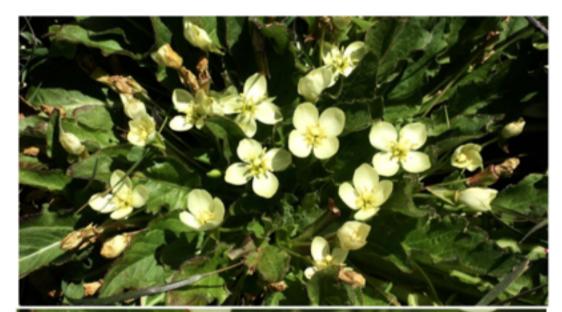
Photos © David J. Keil

A few years ago I was hiking across the sea bluff that Doc Miller calls 'Recurved Flats' and encountered an unusual *Taraxia*. The flowers were cream-colored and smaller than those of the yellow-flowered *Taraxia ovata* that were growing nearby. I'd visited this site many times before, so it was surprising to find something I'd not noticed before. Thinking that I might have something new, I checked to see if it might be one of the other *Taraxia* species, but it did not match any of the other described species. *Taraxia ovata* is reported to sometimes have cream-colored flowers, so it's likely that what I found is a form of *T. ovata*, perhaps a recent mutation. Since noticing these plants I've seen them at 'Recurved Flats' several times, but nowhere else. I'm curious to know if there is more to this than a simple mutation. There are several rare endemics in the Arroyo de la Cruz area, so another would not be a huge surprise.

Taraxia is a genus of four species that range across western North America from southern British Columbia east to Saskatchewan and south to California and Colorado. Taraxia ovata occurs from southwestern Oregon to California's central coast and reaches its southernmost limits near the Los Osos cemetery in San Luis Obispo County. From the San Francisco Bay area northward its range extends into the Coast Ranges, but from the Monterey area southward it is strictly coastal. In the past the four species of Taraxia have been classified in several genera. They were part of an overly broadly defined Oenothera in Munz's A California Flora and in Hoover's The Vascular Plants of San Luis Obispo County, California. In the first edition of the Jepson Manual they were treated in the genus Camissonia, which Dr. Peter Raven had split away from Oenothera. Molecular phylogenetic studies in the late 20th and early 21st centuries have revealed that Camissonia itself was too broadly defined, and in the second edition of the Jepson Manual and the new second edition of Vascular Plants of San Luis Obispo County, California most of the species that had been treated as Camissonia are spread among several well-defined smaller genera. Taraxia is one of these.

Taraxia is not the only genus in Onagraceae with elongated, sterile style tips. The San Luis Obispo County flora also includes the two species of the genus Tetrapteron. One of these, HILL SUNCUP (Tetrapteron graciliflorum) grows across the county in open, sunny spots on shallow soils. The second, PALMER'S SUNCUP (T. palmeri) only grows in the southeasternmost part of the county. The Tetrapteron species are small tufted annuals with bright yellow flowers. Their ovaries, borne among a rosette of basal leaves, are four-angled, and the fruit is a short capsule with four wing-like projections.

In previous classifications (in *Oenothera* and later in *Camissonia*) the two species now classified as *Tetrapteron* were considered to be closely allied to the four species now placed in *Taraxia*. However molecular phylogenetic studies have shown that *Taraxia* and *Tetrapteron* are only distantly related. *Taraxia* is most closely related to the genera *Clarkia*,





Photos © David J. Keil



Photo © David J. Keil

Gayophytum, and Chylismiella whereas Tetrapteron's closest relatives are the genera Camissoniopsis and Neoholmgrenia. Thus the elongated style tips that characterize Taraxia and Tetrapteron evolved independently and do not reflect a shared origin of this distinctive feature.



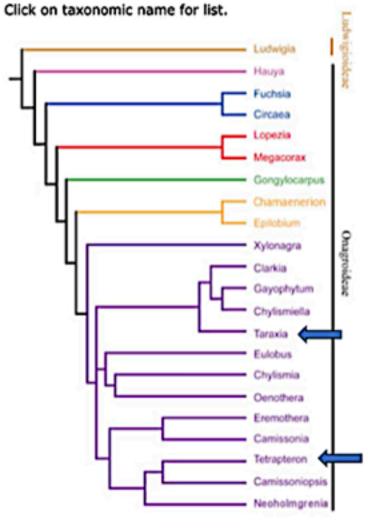


Photo © David J. Ke

Onagraceae-The Evening Primrose Family

Introduction
Phylogeny
Classification
Bibliography
Links
Suggested
Citation





Wagner, W. L. and P. C. Hoch. 2005. Onagraceae, The Evening Primrose Family website. http://botany.si.edu/onagraceae/index.cfm [accessed] 21 January 2024

An Arctostaphylos crustacea debate

Bill Waycott

Last December, CNPS led a field trip in the Morro Dunes Ecological Reserve to examine individual plants of *Arctostaphylos crustacea*, the brittle leaf manzanita, for their expression of an important morphological trait, their stem and leaf hairs. The labeling of this manzanita at this location has been the subject of some debate, because more than one of its subspecies has been reported from this site. The field trip participants were requested to bring a hand lens for the purpose of examining these hairs and thereby help in defining which subspecies was actually present.

In the Jepson Flora, these three subspecies of Arctostaphylos crustacea differ at the point of their stem and leaf hair description, as follows:

A. crustacea, subspecies crinita

Stem: twig and nascent inflorescence, short- and long-stiff-nonglandular-hairy.

Leaf: abaxially densely nonglandular-hairy, occasionally adaxially.

A. crustacea, subspecies crustacea

Stem: twig and nascent inflorescence, short- and long-stiff-nonglandular-hairy.

Leaf: abaxially +/- nonglandular-hairy, in age glabrous.

A. crustacea, subspecies rosei

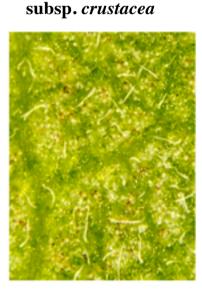
Stem: twig and nascent inflorescence, generally short-nonglandular-hairy.

Leaf: blade abaxially glabrous.

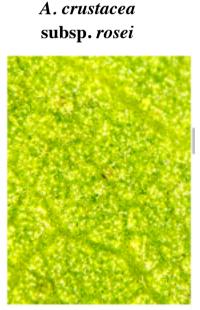
This is to say that, in general, each subspecies has a different length and density of twig and stem hairs, and that these differences are critical in separating each subspecies into distinct groupings. What we saw in Los Osos was not one or the other, but a mixture of everything from abundance to scarcity and everything between.

These differences are clearly detected on their abaxial leaf surfaces and young stem twigs (see below)





A. crustacea



(Photos by David Krause



At the end of the day, It was clear to many of us that this species in the Los Osos area, is not genetically fixed for the presence/absence or abundance/scarcity of twig and leaf hairs. Many of us felt that this population presents a taxonomic anomaly for this species, knowing that the critical morphological trait of differentiation is not constant.

In talking to the manzanita experts at San Francisco State University and U.C. Riverside, their thoughts on this topic were more relaxed. When lines are drawn to create new species within a genus, or new subspecies within a species, and those differences are published in the peer-reviewed literature, the experts are willing to work with those divisions, despite the narrowness or broadness of those differences. In this case, they would label each plant as they see it. If A. crinita is growing next to A. crustacea, is growing next to a rosei, so be it. Their strategy is to use the tools that are given, and if those tools need changing, there are protocols for doing such. So, for now, we have a mixed population of A. crustacea growing in the Morro Dunes Ecological Reserve.

The History of the Wildflower Weekend

By David Krause

The Wildflower Weekend was started in the early 1980's by Bert Wilson and Mary Coffeen, as a way of sharing our county's treasure trove of abundant Spring wildflower displays. Tim Gaskin took over later and was the organizer until 1989. Mark Brunschwiler and I headed up the event after Tim and our last year was 1997.

The event was extremely popular. People came from all over the State to attend. At its height, in the mid 1990's, we had over 140 people attending, and many new members were enrolled in CNPS.

It seemed as if the entire Chapter was involved in this effort from organizing and advertising the event, planning field trips, purchasing and preparing food, shuttling guests, arranging the attendance list and cabin assignments, presenting slide shows, and cleaning up after everyone left.

The Weekend started on a Friday night in mid to late April with guests arriving and checking in at Rancho El Chorro Outdoor Education Campus. For those staying over the weekend, they were assigned cabins and began moving in. That evening there was a social hour with refreshments and a slide show presentation, usually by Dirk Walters, Craig Cunningham, or Malcom McLeod.

Field trips around the entire county were scheduled for Saturday--Morning, Mid-Day, and Afternoon and a half-day outing was scheduled for Sunday morning. Meals were prepared and served by Chapter volunteers during the weekend.

My first experience with the Wildflower Weekend was about 1982 as a volunteer to help with breakfast. I arrived early at camp and found Bert Wilson setting up a huge griddle over the barbeque pit. Charcoal was blazing and Bert was slapping pound after pound of bacon on the griddle. Next came eggs to fry and pancakes to bake. It was quite a feat trying to cook and avoid the smoke at the same time. Dinners were also prepared over the coals. Dining was outdoors at the Barbeque Pit. It seemed that the meals were quite a hit as we didn't have much left over afterwards. Sack lunches were prepared for all participants, and everyone picked up their meals before going out on the hikes.

After returning from the afternoon hikes, participants rested, preparing for the evening events. These included Pre-Dinner Socializing, Barbeque Dinner, and the Evening Program presented in the Auditorium.

Over the years, we got rave reviews from attendees. The Wildflower hikes were spectacular with knowledgeable leaders, the food was wonderful, the accommodations were rustic but enjoyable, and the presentations were informative. Everyone had a great time. I've included some of the advertising, schedule of events, and hikes offered as well as some media coverage of the event below:

Wildflower Weekend Announcement Wildflower Weekend Hikes.

Wildflower Weekend Technical Schedule Wildflower Weekend Tribune Article

LOOKING BACK: WHAT THE OLD APRIL NEWSLETTERS TELL US

April 2014: The drought precluded the usual trip to Shell Creek, but we had field trips to Coon Creek, La Purisima Mission and Clearwater Color Nursery. We received a generous gift from the estate of Jan O'Donell that was placed in the McLeod Student Scholarship Fund. A GPS-linked survey of 4,500 photos taken on trails in Montana de Oro State Park was presented to Vince Cicero for use in long term vegetation change studies.

April 2004: CNPS testified along with other organizations at the Arroyo Grande Planning Commission to get a minimum buffer around Pismo Clarkia populations. At the same time we were struggling with the Pismo Beach City Council on a hearing about the Los Robles del Mar Specific Plan. Working with the Oak Ordinance Committee we were looking at toothless "Voluntary Guidelines" that we proposed to be placed in the General Plan, and CNPS withdrew support for the plan. We had our annual field trip to Shell Creek and an overnight trip to Wind Wolves Preserve.

April 1994: Nancy Mann brought a class of Cuesta College students to do an experimental manual clearing of the Cape Ivy infestation in the Chorro Willows. The cleanup of the massive Unocal diluent spills in the Nipomo Dunes was still causing concern. There were some issues concerning PG&E's excessive clearing of vegetation around power poles. Melissa Mooney published a list of rare plants to search for in the coming months. Malcolm McLeod submitted the Robert Hoover biography. Kathleen Goddard Jones was arranging weekly field trips to carry stones to a monument being constructed on Coreopsis Hill to honor the landowners, and there were field trips to Native Sons Nursery, Pinnacles, and Black Lake Canyon. Wildflower Weekend was April 15-17, an 'all hands on deck' affair.

April 1984: The General Meeting had presentations on Gypsy moth infestations, and vegetation recovery at Mt. St. Helens. Field trips went to Point Sal, Montana de Oro State Park. Junipero Serra Peak, and eastern SLO County. The chapter was working with the U.S. Forest Service to build the protective fencing around the Camatta Canyon amole population at Red Hill Road. (This was taken from the March newsletter's 'Coming Events' as we do not possess an April 1984 newsletter.)

News from the Seed Side

When discussing the seed exchange I am often asked, "well, what seeds do you want?" I have a hard time answering that question because there are so many native plants out there that would be nice to have in a garden. But I am going to try to respond at least partially. This list will include seeds I would like to have in the exchange so that those of us who enjoy propagation can experiment and find methods which will work for some of the more difficult to grow plants. Those of you who have been reading my notes for the last several years know my opinion about the importance of being able to propagate from seed.

Some of these seeds were actually available last year. I just want to encourage those who donated to do that again this fall. And please, continue with the donations of seeds not on this list. It is important to respect the guidelines and gather these only if on property where you have permission to harvest. And always leave plenty for the critters that need them.

I extend a big thank you to all who have donated in the past.

Garrya elliptica Silk Tassel Asclepias eriocarpa Woolypod Milkweed Dephinium parryi Larkspur Asclepias vestita Wooly Milkweed Linanthus californicus Prickly-Phlox Asclepias cordifolia Heart Leaf Milkweed Lonicera involucrata and hispidula Twinberry and Honeysuckle Arbutus menziesii Madrone Marah fabacea Manroot Calycanthus occidentalis Spice Bush Monardella villosa Coyote mint Cercis occidentalis Redbud Mountain Mahogany Paeonia californica California Peony Cercocarpus betuloides Penstemon centranthifolius Scarlet Bugler Chilopsis linearis Desert willow Sugar Bush Clematis Rhus ovata Sambucus Elderberry Acmispon glaber Deerweed Wooly blue curls Eriophyllum confertflorum Golden Yarrow Trichostema lanatum

CNPS-SLO Community Award Another Call for Nominations

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, we honored Beverly Gingg in 2023 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 (<u>susi.slo.cnps@gmail.com</u>) with the name of the individual/entity and why you feel they should be honored. Final evaluation and award determination is made by the CNPS-SLO Board using the above criteria. This is not necessarily an annual award; it is presented when there is a desire to recognize a deserving recipient. The award will be given out at a suitable time when the CNPS-SLO membership is gathered together.

Lichen of the Month- Polycauliona (Caloplaca) luteominia var. luteominia

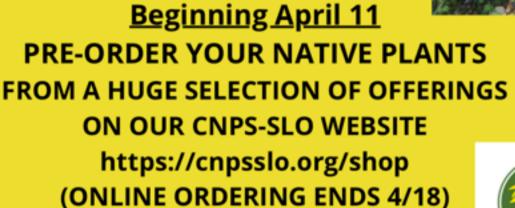


This is another attractive crustose lichen, photographed on rocks at Estero Bluffs State Park. Known as the Firedot lichen, it has a coastal distribution from Vancouver Island to Baja California. It is distinguished by its bright orange apothecia. There are several similar species, including *Polycauliona luteominia* var. *bolandar*i with bright red apothecia.

Photo: D. Chipping

Spring Plant Sale is Happening Soon!

SATURDAY April 20, 10:00 - 2:00
Pacific Beach High School Parking Lot
11950 Los Osos Valley Road, SLO



Pre-Ordered Plants must be picked up on April 20 at the Plant Sale



Plant It! by John Doyle

Right now, everywhere one looks there seems to be an abundance of plant life. Trees are bud-breaking, grasses (and weeds) are exploding on our hills and many annuals are on the verge of flowering, and setting their seeds for the coming year. Going through Nipomo last week, the *Ceonothus* were heavily loaded with profusions of white and blue blooms. More than likely, the hills and

valleys throughout our county will be blanketed with purple Lupines, yellow and white Tidy-tips and the bright orange of California poppies this month. With our Spring Plant Sale just around the bend (April 20th), we intend to bring an array of plants of all kinds. A list of plants to purchased will be posted on-line on April, 11th. On the day of the sale, there will be a bargain section with 1/2 off the regular price, as well as a small garden display. This may be an enticement for you to visit. As always, books, shirts, seeds and lots of information from experts will be there for you, too. Do your part by supporting CNPS and California's natural wildlife.



Photo Ceanothus arboreus CNPS Chapter Photo Collection

SOD BLITZ Survey Project: Communities Coming Together in the Fight Against Sudden Oak Death

Sudden Oak Death (SOD), a serious exotic disease, is threatening the survival of tanoak and several oak species in coastal forests of California, between Del Norte and Monterey Counties. The disease spreads during wet years on leaves of California bay laurels and tanoaks. Some management options are available (sanitation, chemical preventative treatments, bay removal), but they are effective only if implemented before oaks and tanoaks are infected. The presence of SOD symptomatic bay leaves generally precedes oak infections, hence, timely detection of the disease on bay laurel leaves is key. SOD blitzes inform and educate the community about SOD, get local citizen scientists involved in detecting the disease on bay laurel and tanoak leaves, and produce detailed local maps of disease distribution. Additionally, the samples collected during the SOD blitzes allow for a broad genetic screening to detect a new and more aggressive variant of the disease which should be curtailed. Given the amount of rainfall in 2024, SOD is expected to be spreading and may have arrived or resurfaced at a site near you. If you want to be part of the solution, become a volunteer at one of the 2024 SOD Blitzes: schedule, locations, and other info at sodblitz.org



Saturday, March 30, 2024, 9:30-11:30 am, Native Plants in the Spring- Family Hike with Sketching at Three Bridges Oak Preserve.

The plants are sprouting leaves, flowers are blooming, birds are singing. There are plenty of textures, leaves, lichens and maybe still mushrooms. This is an opportunity to slow down and really look at what's around us. This easy loop hike in Atascadero is stroller-accessible and not too steep (and most likely no water in the creek). We will be stopping to draw and talk about the plants we see. The hike is aimed at kids aged 5-10 years and their families; however, all are welcome. No experience is necessary and all drawing materials are provided - Free! Contact Judy Johnson-Williams with your questions judy j-wATixDOTnetcomDOTcom

Please sign the Liability Waiver and register for this event e: https://cnpsslo.org/event/spring-family-sketching-hike/

Sunday, April 6th, 2024. 8:30 am. Malcolm McLeod Annual Field Trip to Shell Creek and environs, one of the outstanding spring wildflower destinations in California.

This outing will last the entire day. Meet at the Santa Margarita Exit Park and Ride <u>35.383290, -120.628037</u> at 8:30 am . Bring plant guides or plan to purchase one during the trip. Also bring adequate water, food, and dress in layers for the weather; a hat and sturdy shoes is advised. Please sign the Liability Waiver and register for this event on our website. For more questions and more information contact Bill Waycott, (805) 459-2103. Rain or threat of rain cancels.

Saturday, April 13th 2024, 8:30 am, Back roads of the Carrizo Plain.

This year we will focus on the southwestern side of the valley, with stops at Wells Ranch and Padrone Canyon Roads. An ascent up Caliente Mountain Road may also be included. This outing will last the entire day. Meet at the Santa Margarita Park & Ride 35.383290, -120.628037. Only vehicles with high-clearance can be used on these field trips (the ground clearance should average 9 inches or higher). Participants not having a high-clearance vehicle will need to carpool. Bring adequate water, lunch, and dress in layers for the weather; a hat and sturdy shoes is advised. Please sign the Liability Waiver and register for this event on our website. For more questions and more information contact Bill Waycott, (805) 459-2103. Rain or threat of rain cancels.



Photo: Bill Waycott

Tuesday, April 16th, 2024 10:00 am, Shell Creek Mid-Week Bike Ride

Join us for a road ride along Shell Creek Road to view the wildflowers. This will be an out and back ride of about 2 hours, approximately 10 miles, on a paved road. This road is mostly flat with little elevation gain. Bring your bike, helmet, other appropriate gear, and water/snacks. If you desire, bring a lunch, drinks, and a chair for a picnic after the ride.

There are no facilities at this site. Please sign the Liability Waiver and register for this event by clicking the link below.

Meet near the intersection of Hwy 58 and Shell Creek Road at 10:00. **35.459283**, -120.334125

For Carpooling, meet at the Santa Margarita Park-and-Ride Lot at 9:15. **35.383290, -120.628037**

Contact David (805) 459-9007 or Bill (805) 459-2103 for questions or information. Rain or threat of rain cancels.



Photo: David Krause

Click Here
To Sign the Liability Waiver and Register for the Event.



Saturday, May 4th, 2024, 10:00 Plants of the U.C. Sedgwick Reserve, Santa Ynez Valley

The Sedgwick Reserve encompasses 5,896 acres, with two watersheds of oak woodland, savanna, grassland, sage scrub, and riparian areas. We will meet local docents to visit these diverse habitats, and discuss the research work currently in progress at the Reserve. This outing will last the entire day and there is a limit to 20 participants. Please meet at the corner of Hwy 154 and Roblar Ave. (34.650228, -120.094607) at 9:30 am, and from there proceed to the Reserve as a group. Bring adequate water, food, and dress in layers for the weather; a hat and sturdy shoes is advised. For carpooling from the San Luis Obispo area, meet at the Halcyon Park and Ride, located on the south side of Hwy 101 at the Halcyon Rd. exit at 8:30 am (35.123094, -120.590477). Please sign the Liability Waiver and register for this event on our website. For more questions and more information contact Bill Waycott, (805) 459-2103.

Sunday, May 5th, 2024, 9:30 am to 2:00 pm, Plant Identification in the Field – Intermediate level field-based keying workshop, Johnson Ranch Open Space, San Luis Obispo.

Saturday, May 18th, 2024, 10:00 am, the Milpitas Special Interest Area (the "Indians" Memorial Park), Los Padres National Forest, near Jolon, CA (36.117857, -121.465024).

This is a joint field trip with the CNPS Monterey Bay Chapter. The Milpitas SIA contains approximately 9,500 acres located in the upper watershed of the San Antonio River, much of which is within the Ventana Wilderness, approximately 17 miles from Mission San Antonio near the border of Fort Hunter Liggett. This outing will last the entire day. Meet at the Templeton Park and Ride at 8:15 am for caravan and carpooling options (35.553966, -120.713761). Bring adequate water, food, and dress in layers for the weather; a hat and sturdy shoes is advised. Please sign the Liability Waiver and register for this event on our website. For more questions and more information contact Bill Waycott, (805) 459-2103.

Registration Open Now

Plant Identification in the Field

Johnson Ranch Open Space, San Luis Obispo

Sunday May 5, 2024 9:30 am - 2:00 pm

Intermediate Level Field-Based Keying Workshop



(Photo: Brooke Wallasch, with permission)

Workshop Size Limited

Advance Registration Required OPEN NOW

Price - \$35

Local botanists Kristen Nelson and Dena Grossenbacher lead this field-based workshop aimed at helping biologists improve their plant keying skills using the new edition of the Flora of San Luis Obispo County, CA by Dr. David Keil. Participants should have working knowledge of plant terminology and dichotomous keys (see our <u>Events Calendar</u> for recommendations to gain knowledge or brushup).

This outdoor event involves short hiking (up to 1 mile) and sitting on uneven terrain.

Rain or threat of rain cancels.

Contact Kristen Nelson or Dena Grossenbacher with questions:

kmnelsonDOTnativeplantsATgmailDOTcom denagrosATgmailDOTcom

16th Cambria Wildflower Show

See hundreds of fresh wildflowers in all their diversity under one roof.



- When: Saturday, April 27 from 12 to 5 pm, and Sunday, April 28 from 10 am to 4 pm
- Where: Cambria Veterans Memorial Hall, 1000 Main Street, Cambria, CA 93428
- Admission: \$5 donation for adults; free for students of all ages

The show is a comprehensive tour of the floral diversity of northern San Luis Obispo County from the Monterey County line to the Morro Bay Estuary and from the coastal bluffs to the ridge of the Santa Lucia Mountains. It showcases the remarkable range of floral colors, scents, and sizes found right here in SLO County.

f you would like to volunteer to help with this show - collecting or identifying, plant display or show set-up, please contact Jo Ellen at joellen927@gmail.com



CNPS WILL HAVE BOOKS AT THE CAMBRIA FLOWER SHOW, INCLUDING A VERY LARGE COLLECTION OF EXCELLENT SECOND-HAND BOOKS

NEWS FROM THE CHAPTER'S EDUCATION PROGRAM

On March 11, Bill Waycott and Susi Bernstein of CNPS-SLO met with a group of enthusiastic garden educators from One Cool Earth. These are the teachers who meet once per week with students in SLO County (and northern Santa Barbara County) schools, working with them in their school gardens to grow vegetables and native plants. Our fieldtrip was part of their professional development training, and coincided with a week where they would be discussing California native plants and invasive species with their students

We took a walk along Froom Creek in the Irish Hills, pointing out native plants and plant communities, admiring some of the spring beauties that have emerged (including the most beautiful jewel flower, *Streptanthus glandulosus* ssp. *glandulosus!*), and focusing on the importance of these open spaces in our lives. As Director of Education, Leila Daniel, later wrote in a thank-you message to us, "... We really enjoyed our time and learned so much. Your impact reaches out through our garden educators and to the 8,000 students in our communities!"

If you are not familiar with the good work One Cool Earth does, have a look at their website: https://www.onecoolearth.org/

(Note: CNPS-SLO presented One Cool Earth with our Chapter's Community Award in 2016 for their environmental education efforts.)

(Photo by L.Daniel)



Photos Taken March 19th. The Carrizo Plain flower displays are just starting up



The Astragalus and Phacelia were at Wallace Creek, the other photos from Simmler Road

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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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