# Obispoensis

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



October 2021

## Poison Oak Toxicodendron diversilobum

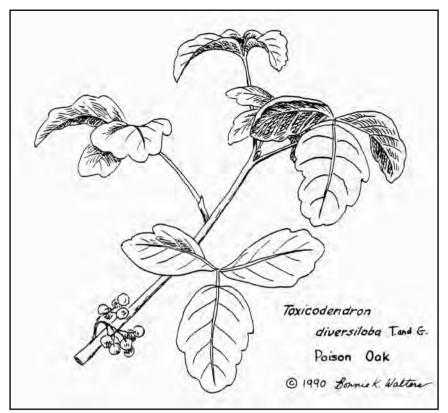
Is there any CNPS member who will admit that they do not know the plant on the cover? Of course, it is poison oak (*Toxicodendron diversilobum*)! I think that it is one of our more beautiful native plants. Its three leaflets are moderately large and green during the growing season. In the fall, many of its leaves turn a bright red, so it is one of the few California natives that can give us any fall color. It does lose its leaves in winter, but that's to show off its white berries. The species does have one, single, trait that excludes it from most gardens, but not all. I once saw a picture taken by a fellow graduate student of its close relative, poison ivy (*Toxicodendron radicans*) that was growing in a botanical garden in Sweden. Neither poison oak nor poison ivy grow naturally in the old world, so it was truly an exotic. It did have an educational sign next to it – "DO NOT TOUCH". Yes, it can cause a mild rash, or more severe patches of blisters, and even loss of skin. Those who are severely allergic can even die from a severe case. But it is still beautiful to look at from a distance.

Here's a simple question. Are poison oak and poison ivy really two different species? My ability to easily gey a rash from poison ivy but not from poison oak would argue for them being two different species. Most people identify the two species by differences in habitat, habit and leaf characteristics. Poison ivy is generally found growing east of the Sierra Nevada, in moist woods, possessing a thickish woody vining stem and large, sometimes huge, shiny leaflets. Poison oak, on the other hand, grows west of the Sierra Nevada, in open grass or shrub lands displaying spindly upright stems with smallish dull leaves. Sounds like they are different species, except for those of you who spend time in our local wild. In our shady canyons, where there is lots of ground water and shade, our local poison oak becomes a thickish stemmed woody vine with quite large leaves. (i.e. it begins to look like poison ivy). Back East, I observed that when poison ivy grows out in sunny fields, it becomes less viny with smaller duller leaves. Unfortunately, these diagnostic characters overlap. This overlap has led a minority of taxonomists to group the two forms as subspecies of a single species. I tend to lean toward this interpretation. How can there be differences in interpretation among experts? Aren't all species equal and readily separable? The problem is three-fold. First, not all experts see the world the same. Some are super sensitive to the slightest difference between species while others require that variation to be undisputable before they recognize it. Secondly, different experts have different definitions for species. The best and most inclusive definition of a species I know is "a group of individuals that are morphologically, evolutionarily and ecologically distinct from all other groups." This simply means different species are different in appearance, are unable to interbreed with, and live in, a habitat distinct from any other species. Unfortunately, only appearance is readily discernible in the field by us casual botanists, since the other two criteria require at least minimal laboratory and garden study. Lastly, some plants look different (i.e., Asiatic & Eastern U.S. sycamores) but can still interbreed while other plant individuals are essentially identical in appearance but can't interbreed (various nightshades). The problem is that there are inconsistencies among the three criteria we use to define what a species is. Today, a new criterion is gaining in importance, but it also requires a laboratory to use. This is DNA sequencing, so even if it is available, it is not going to help us casual field botanists on a weekend field trip.

The cause of the rash, or worse, by poison oak and ivy is also of interest. The skin is not actually reacting to the plant but to the oils the plant produces on its leaves and in its stems. The active ingredient is urushiol, an oil. Urushiol works by 'complexing' with the proteins in your own skin cells. thus changing them so much that your immune system 'thinks' they are foreign proteins. Foreign proteins are first isolated (the exposed parts become hot and itchy) and then the cells containing the altered protein are destroyed. Of course, these are your own skin cells that are being destroyed. You know this is happening because areas of killed skin cells cause blistering. If the area of exposure is very large, then whole sections of skin will be sloughed off and you get what resembles a third-degree burn. In the worst case, the immune system becomes super sensitized and begins to attack skin cells that haven't been changed by the allergen and the reaction is said to have gone 'systematic'. When this happens, exposure to even a few urushiol molecules is enough to send your immune system into overdrive. In a few hypersensitive people it can set off allergic reactions to other substances as well. When this happens, poison oak and ivy reactions are very serious, and could even be life threatening. Sensitivity to poison oak in people is extremely variable. Approximately 10-15% of us have very stable immune systems and/or our skin proteins resist being changed by the urushiol, and these people seem to be immune to poison oak. The rest of us will get poison oak to one degree or the other. Lastly, let me give a word of warning to those of you who think they are immune to poison oak. Since your 'immunity' is based on the functioning of your own immune system and your immune system is dependent on your health, age, level of stress, degree of exposure to the allergen, etc., then it would be expected that your 'immunity' may leave you without warning. The best defense against poison oak is to not come in contact with any part of the plant. In other words, if there is any plant that we should learn to recognize from a distance, it is this one. One last caution is that urushiol is not totally destroyed by fire and is carried by smoke produced when poison oak burns. Thus urushiol is just as dangerous in smoke as it is on the plant.

**Dirk Walters** 

COVER: Ode to Fall: Poison oak turning color at Rinconada Mine (photo by David Chipping)





Left: The original illustration of poison oak by Bonnie from the original version of Dirk's article on the previous page. Right: Bonnie working the information booth at the annual plant sale.

#### IN MEMORIAM BONNIE WALTERS

We sadly announce the passing of Bonnie Kirby Walters age 77, who died on August 11, 2021. She was born in Wabash, Indiana, to Marvin and Della Kirby. She married Dr. Dirk Walters in 1969 and lived in San Luis Obispo ever since.

Everybody will recognize Bonnie's Obispoensis newsletter botanic illustrations that accompanied Dr. Dirk Walters' monthly plant article, and for ECOSLO's newsletter in the late 70's and early 80's. In 1985, she was honored for her service to the Chapter with the Hoover Award. Bonnie's enduring contribution is her lupine design printed on our chapter T-shirt. She provided illustrations to several college-level textbooks, and could always be found at boothing events supporting CNPS and other organizations, most recently Population Connection (originally ZPG).

She was a great lover of nature, earned a Master's Degree in Zoology from Indiana University, and could always be seen searching for amphibians whenever we visited vernal pools in the Carrizo Plain. She was a breeder of (pet) mice, hamsters, rats, and guinea pigs, and was widely known for her work in developing new traits in her animals. As a passionate advocate for the environment, Bonnie gave tirelessly of her energy not only to the local chapter of the CNPS, but also to ECOSLO, the Sierra Club, and Population Connection. She is survived by her husband Dr. Dirk Walters, her brother Lawrence and sister Diana. She will be missed, but her art will live on with our chapter.

## **Seed Exchange Canceled Again**

I am disappointed to inform you that the seed exchange will not happen. With the rise of the delta variant in our county at the time that a decision needed to be made, it just seemed safer for our membership that we not have an in person October meeting.

I know that some of you have been enthusiastically gathering seeds. I have too so I share your disappointment. We will have a plant sale in November that should allow us to sell seeds. If you have seeds that you think might be suitable for sale please contact me and we can arrange to get the seeds to me for packaging. I would need to have the seeds at least three weeks in advance of the sale.

If gardeners have one thing in common, it is being hopeful. I am hopeful that we will be able to have a seed exchange next year. And I am hopeful that, despite not having seeds to exchange, you will be out there enthusiastically planting native plants for the birds, the bees, the butterflies and us.

Marti Rutherford

slomire@msn.com

### President's Message from Melissa Mooney

Welcome to the fall season, folks. It's time to celebrate our upcoming plant sale and acknowledge the success of our on-line sale team. As you can see, we have decided to move forward with a hybrid of our usual November plant sale this year – online ordering and payment, and in-person pickup at Pacific Beach school (see announcement in this newsletter). Throughout this last year and a half, the on-line plant sale team has worked behind the scenes creating a program from scratch: collecting and creating images of plants for sale, uploading these to the web, creating a whole system of on-line payment, finding a location for pick-up of materials, ordering plant materials, laying out orders ahead of time, and selling seeds and books to our clients and the wonderfully responsive local community. Not that money is the only measure of success, but these sales over the last year and a half brought in more net income than some of our past November plant sales. (But those sales were certainly fun, John Nowak!) David Krause, John Doyle, and Judi Young deserve special recognition for countless hours put into this on-line effort, in addition to John Chesnut, Linda Chipping, Marti Rutherford, Kristen Nelson, Bill Waycott, and Cindy Roessler.

The back of this newsletter tells you who we are – but I want to remind you that our Board has been working tirelessly on keeping us going through this difficult time: Kristen Nelson's Programs have been excellent, David Krause keeps us on track with financial reports, and Cindy Roessler's Board Minutes are carefully thought through – she won't hesitate to call you to clarify something. They deserve your thanks. The Conservation team of David Chipping, Neil Havlik, David Krause, myself, and Bill Waycott are hard at work on Dana Preserve and Cambria fuel management. And David Chipping works his creative magic with the newsletter on a regular basis. Thank you, David. Thank you, all. Especially the quiet ones I haven't mentioned who work in the background.

Our volunteers are what make us, and we need you. If you want to volunteer to help with the upcoming November sale, please contact John Nowak (gritlys@gmail.com). Here you will have a chance to tell people about your favorite plants and how they grow in YOUR garden. As we move back into the Vet's Hall and to in-person meetings next year (hopefully), and even at the November plant sale, we will need a volunteer to coordinate retail sales (see Linda Chipping's article in this newsletter). We will help you make this YOUR position, as you see it, so you can provide a valuable supply of botanical and environmental book titles for members to browse and purchase at our meetings and events. Thank you also to the dedication of Board members who've recently stepped away - June Krystoff-Jones as our Retail Sales Manager and Marti Rutherford as our Corresponding Secretary.

We will find a place for you. Come join us. Contact me at mjmoon@charter.net



## Our mintiest minty mints, the two mesamints

As soon as you step on it, a mesamint lets you know it is there. We have two in SLO County. The one with the larger lavender-purpleflowers is well represented on seasonally wet clay soils on the coastal terraces north of Arroyo de la Cruz, and also around the lake side of the serpentinite hill at the western end of Laguna Lake Park in SLO City. This is Pogogyne douglasii (Douglas's mesamint) shown on the two larger photos. The smaller flowered thyme-leaved mesamint, Pogogyne serpylloides, is more easily missed as it is seldom more than a few inches high and is found from the coast to the central parts of the county. It is shown on the two smaller photos. (photos by D. Chipping)









#### **Gardening with California Natives**

The lovely Western Elderberry (*Sambucus nigra* ssp. *caerulea*) is a wonderful small tree which grows here on the central coast of California. It has a wide geographic range, encompassing northern Baja California to British Columbia, Utah and New Mexico. It mostly grows below 10,000 feet and can be found throughout the central coast including north and south of the Cuesta Grade.

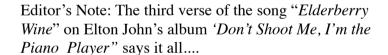
It is in the honeysuckle family and offers many benefits to wildlife with its plume of creamy yellow flowers which attract bees and butterflies. It is not usually available in the nursery trade due to its rangy growth habit. It, however, can be trained into a single trunked small tree or allowed to become a large shrub. It can grow to 30 feet tall without pruning, so it can become a statement in the garden.

Western Elderberry leaves are green and usually have seven leaflets. Their flowers usually come in spring and are followed by edible fruit in summer. The fruit is black but is covered with a white powder which makes them look blue. These fruits are a favorite of many birds and other wildlife. The fruits were also eaten by the Native American people and the 49ers who made wine from the fruit.

This plant, once established, does best with monthly summer watering to stay green. It is not susceptible to oak root fungus. When trained properly, other plants like Hummingbird Sage (*Salvia spathacea*), Coral Bells (*Heuchera* species) and Goldenseal (*Hydrastis canadensis*) can be planted underneath to create a lush feeling.

This shrub/tree itself is very drought resistant and, if left alone, it will go somewhat deciduous in hot inland areas. It is not particularly fire prone, due to its large non-oil bearing leaves and branches. So, if you are looking for a large shrub/small tree that is drought resistant, attracts birds and bees, and needs little water, consider the Western Elderberry

Happy Gardening, John Nowak.





(Above) Elderberry on Paso Robles River Parkway (photo David Chipping)

(Below) Elderberry fruit in Los Osos Oaks Reserve (photo David Chipping)



Drunk all the time, feeling fine on elderberry wine Those were the days we'd lay in the haze Forget depressive times How can I ever get it together without a wife in line To pick the crop and get me hot on elderberry wine?

#### Welcome and Thank You to New and Renewing Members, June-August, 2021



C. Warren Arnold Jean Burns Slater Dayna De Valk Jeri Edwards Susan Grimaud Marlin Harms James Johnson Sally Krenn
Sue Luft
Jean McBride
Holly McMillan
Nathalie Mikowicz
Marilyn Miller
Kelly Oringer

Karen Osland James Patterson Jennifer Roe Amy Sinsheimer Jan Surbey Nancy Tholen Rio Turrini-Smith



## Dr. Keil makes yet another plant list!

A new plant list has been created by Dr. Keil for the Land Conservancy of San Luis Obispo County's **Santa Rita Creek Ranch**, located at the headwaters of Santa Rita Creek. You can view this and other plant lists at **https://cnpsslo.org/resources/finding-plants-in-the-wild/.** The Conservancy holds a conservation easement on this private cattle ranch, thus protecting it from future development. Dr. Keil reports 522 taxa, about one quarter of the entire county flora.

#### **OCTOBER 7th PROGRAM (BY ZOOM)**

#### **Melissa Mooney**

A Tour of Upper-Elevation Great Basin Sagebrush Country

- From Black Rock and Burning Man to Limestone and Bristlecones

Register in advance for this meeting:

https://cnps-org.zoom.us/meeting/register/tZ0kcOCvrTgiG91cfOan\_vREUfpLjRccGElZ



state of Nevada. You might not know it, but Melissa received her Master's from the University of Nevada at Reno studying this subspecies of sagebrush and the other grass and herbaceous species associated with it. With the generous help of a U.S. Forest Service Fellowship, she and her two assistants spent two summers travelling the state sampling vegetation in several different mountain ranges. Braving heat, cold, wind and rain, several flat tires, and numerous "stuck in the mud" scenarios, they sampled 140 sites. The resulting data formed the basis of Melissa's classification of sagebrush – grassland vegetation.

Please join us on October 7 to kick-off the 2021 – 2022 speaker series with our very own President Melissa Mooney! Instead of the usual post-summer member slideshow, Melissa will be taking us on an exciting tour of the upper-elevation Great Basin sagebrush (Artemisia tridentata subsp. vaseyana) and grassland habitats from 30 mountain ranges across the

Melissa will take us through a short history of botanical collecting in the Great Basin, and share some of her experiences and recently-scanned photographs of mountain ranges, and mountain plants, including a few rare ones. Tune in to find out what the Black Rock desert, the Ruby Mountains, and the Snake Range (including the now-designated Great Basin

National Park) have in common!



Great Basin Bristlecone pine (Pinus longlaeva)



Eriogonum caespitosum, matted buckwheat



Mount Jefferson in the Toquima Range, central Nevada



Artemisia tridentata ssp. vaseyana, mountain big sagebrush

#### THE GARDEN CORNER

We all know how it feels to be hit with a stiff spray of water from a garden hose. Probably when you were young, like me, played with water from the garden hose ... chasing each other to gain control of the hose. Well. sometimes a direct blow would hurt, especially in the face. Keeping that thought in mind, I want to talk about pest control for our California natives and how a stiff stream of water is almost as effective as using soap spray or an oil spray, such as Neem Oil.

If you have the time to go out in your garden, you will notice that due to the drought stress, this has been a bad year for spider mites and aphids. These insects typically attack manzanitas (*Arctostaphylos* species), *Ceanothus* species, pacific wax myrtle (*Myrica californica*) and Oregon grape (*Berberis aquifolium*).

Luckily, we have a secret weapon ... water. Using a spray nozzle placed on 'jet', it is possible to control insect populations with a once-weekly, early-morning spray. For severe infestations, an application of Neem Oil or insecticidal soap, followed weekly with a spray of water, will rid your plants of most of the soft bodied insects (spider mites, aphids, etc.).

For hard bodied insects, such as scale insects which love *Ceanothus* species, they will require the use of an oil spray, such as Volck Oil Spray to control. Ants are always behind the scenes, farming the aphids and scale for their honey dew, their favorite treat! To control ant colonies, use ant bait stations or ant bait stakes (use cautiously around pets and wildlife).

Hope that will help with the bugs. Until next time,

Happy Gardening, John Nowak.

#### **CNPS 2022 Annual Banquet News**

The SLO Chapter Board of Directors has decided to reimagine the January 2022 Banquet as an outdoor field trip, in consideration of the continuing concern for Covid-19 and large, indoor gatherings. We are still in the planning stages for this event, which would occur around the same time of the annual banquet (Saturday, January 22, 2022), and may include a bring-your-own picnic lunch and perhaps a hike at or near one of our local parks or other location. We look forward to this opportunity for a safe, in-person gathering, plus an early start to what we hope will be a great 2022 CNPS hike season! We welcome your thoughts and ideas as we work out the details of this event. Send your comments to Lauren Brown, lbrown805@charter.net or call/text 805-570-7993.







We offer our congratulations to Cal Poly student Roisin Deák on receiving a Grassland Research Award from the California Native Grasslands Association for her project "Meadow vegetation trends in relation to fire". Working under advisor Dr. Nishi Rajakaruna in the Geoecology Lab., she has shown that meadow wetland conditions might be restored after severe fire when competing upland plants are removed.

#### **CONSERVATION UPDATE**

#### **OCEAN DUNES OHV ISSUES**

There have been no significant actions over the summer, but it was shown that dust pollution on the Nipomo Mesa was reduced by a significant amount during Covid-19 closures, and that vehicles are destroying a rejuvenating Pismo Clam population by driving on the hard wet sand in the intertidal zone.

#### DANA RESERVE

We are awaiting the Draft EIR for this project to be completed.

#### FIRE ISSUES IN CAMBRIA

Several of our members had an in-field meeting on Covell Ranch that included CDF officials and the preparers of the environmental assessments made under the new State Vegetation Treatment Program. CNPS is concerned about the amount of native plant understory that could be removed, and the sizes of trees that would be thinned. CNPS has been promised that some demonstration test plots will be made available for our inspection. Both Neil Havlik and David Krause have been leading our efforts.

#### CALIFORNIA VEGETATION TREATMENT PROGRAM AND THE PROGRAMMATIC EIR (PEIR)

As noted in the last issue, members of our chapter are working with other chapters and CNPS conservation staff in Sacramento on best practices surrounding fuel break issues around houses and in the WUI (Wildlife-Urban Interface). There are some wrinkles to be ironed out regarding how the Treatment Program would interface with protected Environmentally Sensitive Habitat Areas within areas controlled by the Coastal Act.

## **November Plant Sale is Back!**

The Plant Sale on Saturday, 11/6 will be a Hybrid Sale this year with Early Online Ordering and Plant Sales at the Event

We will be back at the usual location—Pacific Beach School Parking Lot 11950 Los Osos Valley Road, SLO. Sale is 10:00—2:00 GPS 35.253879, -120.687379



Starting Monday, October 18
On Our CNPS Website
A Beautiful Selection of Native Plants will be Offered For Sale



During the Pick-Up Event, Saturday November 6
A Selection of Native Plants will be Available to Purchase Books, Tee Shirts, Posters, and More will be at the Sales Table.





Plant Pick-Up will be Saturday, November 6 from 10:00 – 2:00
(Location is 11950 Los Osos Valley Road, SLO)
(Email and Facebook reminders will be sent as the sale begins.)

COVID Protocols will be observed.

Even though we will be outdoors, PLEASE WEAR YOUR MASK at the event.

## **Proposed Chapter Lichen Interest Group**

At the last chapter board meeting, the concept of forming a Lichen Interest Group was approved. Lichens are not plants, and even the algal component is no longer considered a plant. Lichens are combinations of fungi and algae and/or cyanobacteria, are globally distributed, and are an important component of California ecosystems.

If you are concerned that CNPS is straying from its stated mission, the issue is muddied by the reality that CDFG protected plant lists include lichens, and they are collected by herbaria that include the Hoover Herbarium at CalPoly. Lichens provide additional arguments for the protection of the plant communities in which they are found.

My suggestion for the main function for the proposed group is to make a record of what lichen species grow in different locations, to record species through photographs and, where possible, attempt species identification at the species level. Also, those taking part in the group might learn some new skills. Precise identification is made possible by the great photographic sites found on the web, such as 'Ways of Enlichenment', and through consultation of information found at the Consortium of North American Lichen Herbaria site. There are a lot of look-alikes that can only be distinguished from each other by microscopy or chemical tests. I don't expect that we will use laboratory methods very much, but the important thing is we found 'whatever it is' and recorded date and location. In the meantime I have gone to the Consortium web site and found all of the vouchered species collected in SLO County, which is over 500 species, and then found photos of each species taken from the web and turned this into a useful identification tool.

I expect that we will be able to produce photographic trail guides and will enrich our field trip experience in the same way that having a good birder along is just great.



If you are interested, contact David Chipping at dchippin@calpoly.edu or call (805) 528-0914

Photos: David Chipping

## Isocoma and Hazardia: two lookalikes



Two very similar plants flower in the Fall. Saw-tooth goldenbush *Hazardia* squarrosa var. squarrosa is common in coastal mountains, and Goldenbush *Isocoma* menziesii is generally confined to the coastal terraces. Two varieties of *Isocoma* are recognized (var. sedoides and var. vernonioides) but their distinctiveness has been questioned. Leaves of *Hazardia* are more prickly and phyllaries more pointed than those of *Isocoma*. Photos show *Hazardia* (top left and left side of top center) and *Isocoma* (right side of top center and top right). Prostrate *Isocoma menziesii* var, sedoides from Montana de Oro's bluff trail is shown at right.

All photos David Chipping



## **Invasive Species Report**

Tree Tobacco Nicotiana glauca

Tree tobacco is in the Solanaceae or Nightshade family. It is a fast growing columnar shrub reaching to 20 ft tall with ovate bluish leaves from 2 to 8 inches long. It forms dense stands that displace native vegetation and may contribute to bank erosion and flooding. Tree tobacco produces tubular yellow flowers. Each plant can produce from 10,000 to 1 million seeds per year with 100% viability; however the seeds only last a year or two in the soil. Seeds are spread by water movement and animals. Native to South America tree tobacco was introduced to the U.S. in the early 1800's and introduced to California about 100 years ago. It is found in disturbed soils, vacant lots, along roadsides and riparian areas. Tree tobacco is toxic but does not contain nicotine. Instead it produces anabasine which is more toxic than nicotine



(photo by D. Chipping)

Controls: Hand pulling and weed wrenching is effective. Effective chemical treatments include triclopyr (Garlon 4 Ultra) glyphosate and imazapyr.

Mark Skinner

#### Geological controls of plant communities on northern coastal terraces

The flat coastal terrace that extends from Cambria to San Carpoforo Creek was cut during the last major interglacial period by an ocean that was at least 40 ft. higher than that of today. The ocean cut a shelf that extends back to the base of the hills east of the highway, which was subsequently exposed when sea level dropped during the last glaciation. Alluvial fans extended westward across the exposed bedrock surface. In the area around Arroyo de los Chinos, at the southern end of the long straight stretch of highway south of San Carpoforo Creek, the alluvium is dominated by clay soils derived from ultramafic bedrock, and these heavy clays support a *Dudleya-Eryngium* association and also chocolate lilies and *Calochortus uniflorus* and *Calochortus luteus*. At a later date the terrace was invaded by sand dunes being blown eastward from the ocean, which continues to rise and today is cutting into both the old terrace bedrock and the overlying clays and old dunes. The dunes support a different flora, including large stands of *Eriophyllum staechadifolium* and sea thrift, *Armeria maritima*, but not the species found on the clay soils.



Top Row: (Left) A half eroded ancient sand dune. (Middle) *Eriophyllum staechadifolium* on an old dune. (Right) *Armeria maritima* Bottom Row: (Left) *Dudleya-Eryngium* association on clay. (Middle) *Calochortus uniflorus* (Right) *Eryngium armatum* (photos by D. Chipping)

## Retail Sales Table Needs YOU to be its New Manager!

Many of you are familiar with our Book and T-Shirt Sales Table that makes items available at our monthly meetings, plant sales, and occasional other events. It has been a valuable part of our chapter's activities for 35+ years! The idea of hard copy books becoming a thing of the past when e-books became available has never impacted the demand for the nature and gardening with natives books. Our beautiful T-shirt continues to be a best seller too!

The chapter is looking for a person(s) to fill the Sale Table Manager Position. 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. The 'size' of the inventory is dependent on the new manager's decisions. It is also potentially a role filled by two people; one for books, the other for T-Shirts.

Our hope is to have the new Manager(s) as soon as possible to plan for the November Plant Sale at the Pacific Beach High School location. During the 18+ months of the pandemic, volunteers have set up a sales table at our on-line plant sale pickups, meeting a pent-up demand from folks. The inventory of books and T-Shirts is currently low.

Our former sales manager and other volunteers are more than willing to help orient, answer questions and assist a new Manager. Please contact Melissa Mooney (mjmoon@charter.net) or Linda Chipping (805/528-0914, lindachipping@yahoo.com) with any questions or interest.

## Our 'other' Spineflowers

The largest group of plants called 'spineflowers' in the county belong to the genus *Chorizanthe* (23 species), but there are a couple of other genera in the Polygonaceae family to which the common name has been assigned, namely *Lastarriaea*, *Mucronea* and *Systenotheca*.

Leather spineflower (*Lastarriaea coriacea*) is common in sandy soils south of Morro Bay (top pair of photos at right). The plant tends to disarticulate and imbed itself into the knees of photographers, grrrrrr!

California spineflower (*Mucronia californica*) is also common in sandy soils south of Morro Bay, and has clasping bracts. Shown with blue *Eriastrum densifolium*. (second row of photos at right).

Perfoliate spineflower (*Mucronia perfoliata*) is found in loose soils in arid areas and has perfoliate bracts. (third row of photos at right).

Vortriede's spineflower (*Systenotheca vortriede*) (bottom pair of photos at right) is uncommon in the highlands of the northwestern county.



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

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

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

#### Protecting California's Native Flora since 1965

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



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



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