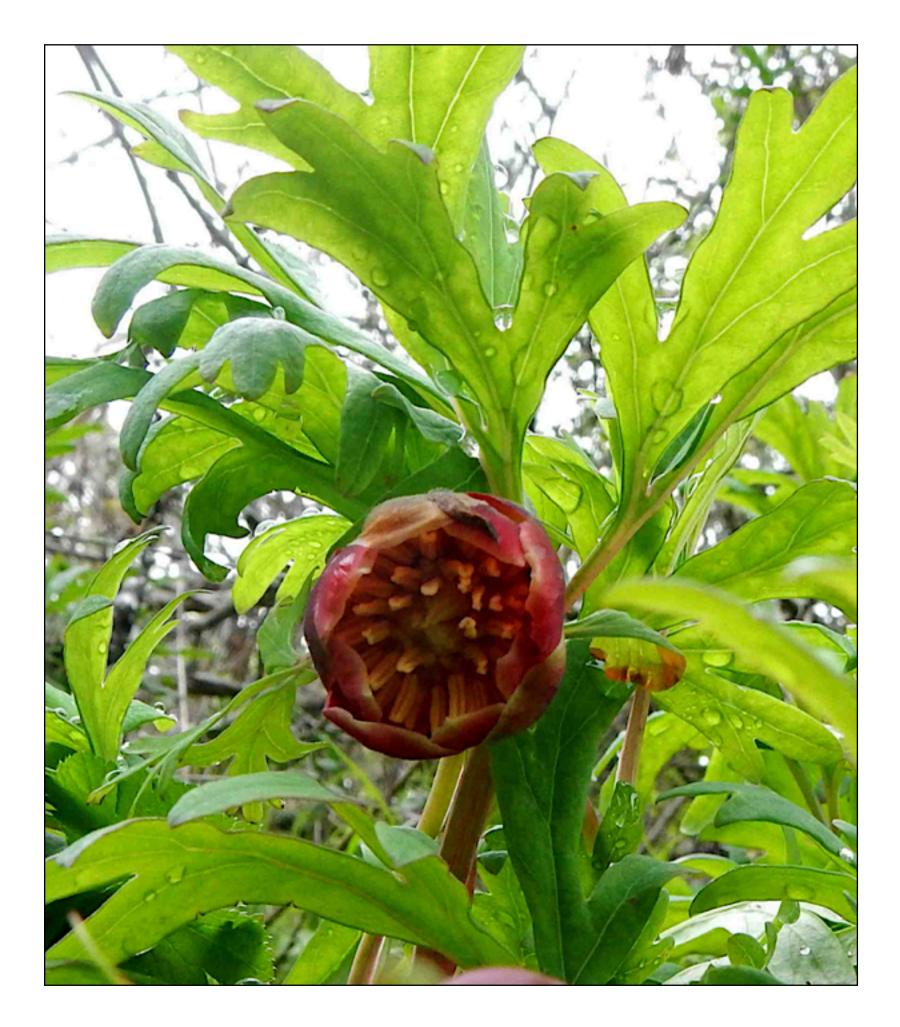
bispoensis

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



February 2024

# California Peony (*Paeonia californica*) Dr. Dirk Walters

The plant featured in this issue of the OBISPOENSIS is the California Peony (*Paeonia californica*). I've seen this plant in bloom as early as mid-December and would not be surprised to find it in late November. California peonies are very difficult to photograph in flower because the dried-blood red flowers always hang down. In fact, it is often more entertaining to watch photographers trying to capture the peony's face than it is to find the plant itself.

California peony plant individuals are quite common and are generally widely scattered. They do not seem to form clusters.

Thirty-one of the 33 or so species of *Paeonia* are Eurasian. Only the last two species are found in the Western United Sates. One is the more widespread, *P. brownii*, which can be found growing in Northern California, north and east. The other species, *P. californica*, is restricted (endemic) to coastal Southern California from Monterey to San Diego counties. In plant books published before 1950, the California Peony was not recognized as a separate species; all the California peony plants, north and south, were called *P. brownii*. The large flowered garden peonies are all of hybrid origin, mostly from Asian species. The primary parent of the common garden perennials is *P. lactiflora*.

Linnaeus, who is the 'father of botany,' named the genus *Paeonia* after Paeon, physician to the Greek Gods. The genus was named after him because Paeon prescribed it (*Paeonia officinalis*, the common peony of Southern Europe) for several ailments.

Mary Elizabeth Parsons, in her 3<sup>rd</sup> edition (1907) of *The Wildflowers of California*, mentioned that the early Spanish Californians used the thick root as a remedy for dyspepsia (indigestion). My guess is they were simply using similar California species for the same purpose as the one they used in Spain. She also stated that the Southern California Indian tribes made it into a powder used in decoctions for colds and sore throat. On the other hand, Ms. Parson also records that the Northern California Indian tribes considered it poisonous to the touch.

If you look up the genus of peony in one of the older flower books, you will find it placed in the Buttercup Family, Ranunculaceae. In the newest Jepson manual, peonies have been moved to their own family, the Paeoniaceae. Peonies and buttercups do share many superficial characteristics. They can even be hybridized if you remove the embryo from the endosperm and culture it separately. Then why are they placed in separate families? The most obvious characteristic is the fleshy ring that subtends the stamens and later the developing fruits. This ring is unique to



Original drawing by Bonnie Walters

the peonies. Peonies also have very large black seeds that often have a fleshy growth (aril) attached to them. Also important is the way the many stamens initiate. In buttercups and most other plants, stamens begin growth from near the petals and mature inward toward the pistils. But, in peonies they initiate first nearest the pistils and then mature outward toward the petals. You say, picky, picky. I agree, but sometimes it takes less than this to indicate botanical relationships.



Where is a good place to find California peony? The plant is widespread but not abundant, but does seem to be common on the north side of Calf Canyon east of the Highway 229 junction, where it can be found below the chaparral shrubs. On past field trips we have often stopped to look at a population of *Lupinus concinnus*, and the peony can be seen on the slopes on the opposite side of the creek. (35.43251,-120.53671). Photo from that location (D. Chipping).

It can also be found sparingly on the southernmost leg of the Rattlesnake Flats Trail in Montana de Oro Park. After leaving the Coon Creek parking area and heading up the trail, it can be found around 35.25767,-120.88271.

(Front Cover: Paeonia californica from Morro Dunes Ecological Reserve, Los Osos (D. Chipping)

# **Chapter Monthly Program February 1st San Luis Obispo Vets Hall**

(corner of Mill St. and Grand Ave) Lichen Workshop 6-7 pm (Open to All), Social Gathering 7pm; Business and Program Starts 7:30pm.

## **Michael Mulroy**

# The Diverse and Underexplored Lichens of the California Central Coast

CNPS SLO Chapter member Michael Mulroy will give a brief overview of the lichen biota of San Luis Obispo County. Michael will present characteristic and common species of some of SLO County's habitats, as well as highlight some locally and globally rare lichens in our area that are worthy of conservation attention. Although he is clearly biased in favor of rock-dwelling (saxicolous) lichens, he will make every effort to make time for epiphytic and soil-dwelling (terricolous) lichens.

Michael moved to San Luis Obispo County in 2019 to pursue an M.S. in Biological Sciences at Cal Poly, which he completed in February 2023 as a member of the Geolecology Lab headed by Professor Nishi Rajakaruna. His M.S. research focused on lichen communities of serpentine rocks and soils. Prior to his SLO life, he spent six years working as a biologist in the San Francisco Bay Area, and more recently completed two years of service as a Peace Corps Volunteer in beautiful Panamá. Michael currently works locally as a Biologist for Althouse and Meade, Inc. and continues to plug away at lichen identification and community ecology research. When he is not admiring lichens, Michael enjoys reading, birding, and being in the ocean.



# CNPS-SLO Mini-Keying Workshop: Lichens!



- Free pre-meeting keying workshop
- February 1, 2024, 6-7 pm\*, SLO Vets Hall
- Facilitated by Michael Mulroy and Dena Grossenbacher
- Learn about key characteristics to identify lichens
- Practice keying macrolichens collected from our area
- Bring a 10x hand lens\*, narrow-pointed dissection tool, and headlamp

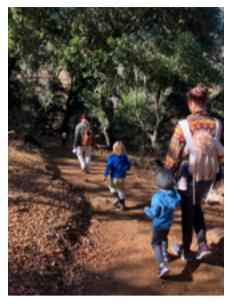
Photo: Michael Mulroy, used by permission

- \* Desktop seating is limited please arrive a few minutes early
- \*\* Dena will provide some extra supplies



## Saturday January 27, 2024 (weather permitting); 9:30-11:30 am, Native Plants in Winter - Family Sketch Hike at Three Bridges

Winter is not just bare sticks in the woods, but fallen leaves (some are huge!), nuts and seeds, and textures of bark and lichen. Here's an upcoming opportunity for us to slow down and look at nature closely. This easy wintertime hike at Three Bridges in Atascadero is an entry-level introduction to both native plants and drawing; no experience in either is necessary. The hike is aimed at kids aged 5-10 years and their families; however, all are welcome. The hike route is stroller-accessible and will be two hours in length. Sketchbooks and pencils included! Free! If you wish to attend, please contact Judy Johnson-Williams to sign up: judy j-wATixDOTnetcomDOTcom



### Sunday, January 28, 2024, 10:00 am, Santa Margarita Lake. Manzanita Field Trip #9.

Join us to study the manzanitas that are adapted to the interior areas of San Luis Obispo County: big berry manzanita (*Arctostaphylos glauca*) and Eastwood's manzanita (*A. glandulosa*). Meet at the River Road (Blinn Ranch) entrance to Santa Margarita Lake County Park (35.315849, -120.417921). Total hike distance is 4 miles with an elevation gain of 500 ft., and a duration of 3.5 hours. From San Luis Obispo, the trailhead is 40 minutes' drive. For those wanting to carpool, meet at the Park & Ride area, just east of the Santa Margarita Exit off of Hwy 101 on Hwy 58 (35.383409, -120.626885). Bring adequate water, snacks and/or a lunch, and dress in layers for the weather; a hat and sturdy shoes is advised. Contact Bill, 805-459-2103. Rain or the threat of rain cancels.



Photo Bill Waycott: A. glandulosa and Gray pine

Photos Bill Waycott: Big-berry manzanita A. glauca

### MORE FIELD TRIPS ON THE NEXT PAGE

## Lichens of the Month- Chrysothrix granulosa and Parmelia sulcata



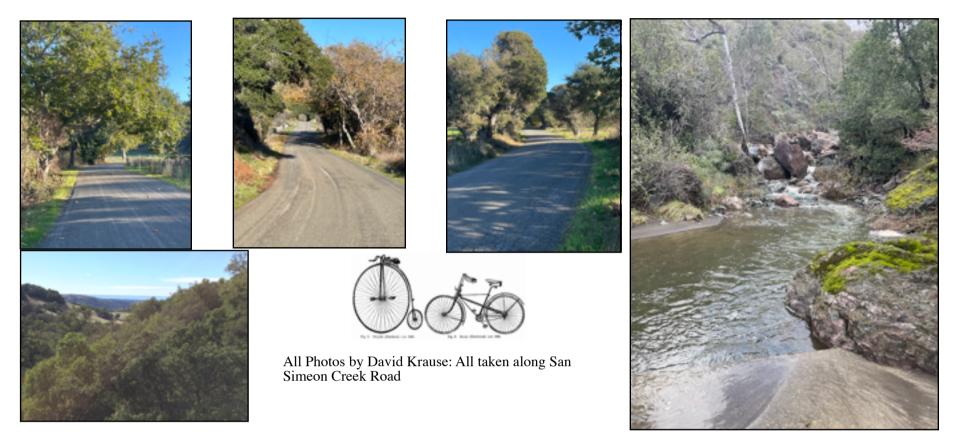
Bright yellow Coastal gold dust lichen *Chrysothrix grandulosa* and grey *Parmelia sulcata* on a shrub at Cerro Alto. *Chrysothrix grandulosa* is found in shaded dry habitats in coastal North and South America. It is powdery (leprose), usually found on bark but also on fences and rock. Shield lichen, *Parmelia sulcata*, is a foliose lichen with a very wide distribution, found mostly on bark. It has been used as a source of red-brown dyes, and as a salve for the gums of teething babies.

Photo: D. Chipping



## Saturday, February 10, 10:00 am. Winter Bike Outing on the North Coast

Join us for a road ride along San Simeon Creek Road. This will be an out and back ride of about 2 hours, approximately 12 miles, on a paved road. There are moderate hills along the way. Elevation gain is about 350 ft. Bring your bike, helmet, other appropriate gear, and water/snacks. If you desire, bring a lunch and drinks for a picnic after the ride. Meet at Washburn Day Use Area on Hwy. 1 just south of the bridge over San Simeon Creek. From the last stoplight in Cambria travel 2.2 miles north on Hwy. 1 to the parking lot on the side of the road.



## Sunday, February 25, 2024, 9:30 am, Coon Creek Trail, Montaña de Oro State Park

Join us for a spring walk through Coon Creek Canyon, a lush riparian habitat, for a glimpse of spring fanfare. Total hike distance is 3 miles with an elevation gain of 200 ft., and a duration of 2.5 hours. Meet at the Coon Creek parking area in Montaña de Oro St. Park (35.258084, -120.886969). Bring adequate water, snacks and/or a lunch, and dress in layers for the weather; a hat and sturdy shoes are advised.. Contact Bill, 805-459-2103. Rain or the threat of rain cancels. The link to the CNPS plant list for this area is located here <u>https://cnpsslo.org/wp-content/uploads/2013/03/Coon-Creek-2013-Plant-List.pdf</u>



All Photos: (Left) Cardamine californica (CNPS-SLO Collection); (Center); Ribes sanguineum var. glutinosum (CNPS-SLO Collection); (Right) Trtillium angustipetalum (Bill Waycott)

## Two of the Four Genera of Ericaceae that are Found in SLO County

Four genera of Ericaceae are found in SLO County. Besides the manzanitas (*Arctostaphylos*), we have *Arbutus menziesii*, the madrone, which is a full-sized tree, *Vaccinium ovatum*, the huckleberry, an evergreen shrub; and *Gaultheria shallon*, Salal a low shrub.

The chances are that you won't see salal (or shallon), as it is confined to the steep, north-facing slopes of Coon Creek and valleys close to the Diablo Canyon Power Plant. It is an understory plant in wet coastal forests, and thus it is found in the fogwetted and deeply shaded slopes closest to the cooling ocean breezes. Santa Barbara county has some occurrences, but it is most common in the wet forests of the Pacific Northwest, Vancouver Island and Southeast Alaska. It is more common on the Big Sur coast. The shiny green ovate leaves are leathery in texture, and the flowers are in a raceme and hang down in a similar fashion to those of manzanita. The fruit resembles a blueberry, and are a capsule containing over 100 seeds.



Photos: Left: Salal flowers (D. Chipping Salt Point State Park); Center: Fruit forming as petals are shed (D. Chipping Salt Point State Park); Right: Salal berries (Darren Giles CC BY-SA 3.0)

Vaccinum is more common, but shares with salal a need for a cool summer- winter moist environment. It can be found in the hills east of Cambria, mostly on private land in the Coon Creek area, where it can be seen on both sunny and shaded portions of both the Coon Creek Trail and Rattlesnake Flats Trail; on the north-facing slopes at Cerro Alto, at Indian Knob and at Price Canyon. It shares a distribution with salal, in wet coastal forests of the Cascades and British Columbia, but also can be found in some southern California mountains. The flowers hang down and develop into black berries.





Photos: Left: Vaccinium ovatum flowers on Coon Creek; Right: Dense stands of Vaccinium on Coon Creek (photos D. Chipping)

#### **Medicinal Uses of Salal and Huckleberry**

Salal berries are widely used by native people of the Pacific Northwest. The berries are high in anti-oxidants, vitamins, and minerals. The leaves can be chewed and placed on burns and sores, or used as a tea against coughs and other respiratory infections, and is both an astringent and anti-inflammatory agent which may be effective in aiding throat infections.

*Vaccinum ovatum* and other plants in the genera are rich sources of Vitamins A, B, C, potassium, and contain a very high phytochemical content that include the anti-oxidants anthocyanin and polyphenols. Native peoples of the Pacific Northwest used the berries much as they used salal. It appears they also lower blood pressure.

#### LOOKING BACK: WHAT THE OLD FEBRUARY NEWSLETTERS TELL US

February 2014: The cover article was on a 'mystery' manzanita found in the Los Osos Elfin Forest. Fungal Foray was cancelled due to drought, and we were concerned about the spring flowering season. The chapter commented on a proposed expansion of the Phillips Refinery on the Nipomo Mesa and a proposal to process oil from as far as North Dakota at the plant. We were seeking old photographs from which vegetation changes could be assessed. Our program was on Sudden Oak Death by Dr. Matteo Garbelotto from U.C. Berkeley. Al Normandin conducted a lichen walk at Fiscalini Ranch.

February 2004: The cover article was about Nipomo lupine and Dirk and Bonnie Walters' research on the Nipomo Mesa. The Board of Supervisors were trying to use a lobbyist to represent the County in regard to protection of Environmentally Sensitive Habitat Areas, with the intent to favor developers rather than habitat to the Coastal Commission. We also commented on ongoing updates to the General Plan. The conservation program had a tour of Hearst Ranch due to our support of what was later to transpire as the expansion of San Simeon State Park along the coast. The collapse of sand dunes into Shark Inlet by the Paso Robles earthquake was discussed. The annual Fungal Foray took place, and the speaker was Dr. Keil on the plants of South Africa. Field trips were to Cerro Alto and Burton Mesa.

February 1994: Dr. Walters took over the Presidency from Linda Chipping. The removal of Cape ivy from Morro Bay State Park was discussed. (Later we were to discover that this work was futile). Jack Beigle was working with State Parks on weed control in the Oceano dunes. We were working with the City of San Luis Obispo Environmental Task Force and the beginning of the greenbelt protection. Our work with the Common Ground/ CDF program on Sustainable Oak Landscapes wound down (ending up with lots of work by local organizations but with no significant policy changes). Dennis Sheridan reported on the Fungal Foray into lands now fenced off around the Cambria cemetery.

February 1984: Tim Gaskin was President. The chapter was working with USFS on fencing off the rare plant habitat at the north end of Red Hill Road, and in supporting wilderness status for Machesna and Garcia Mountains. Eileen Pritchard was gathering photographs for placement in I.D. Books to be used at the Plant Sale.

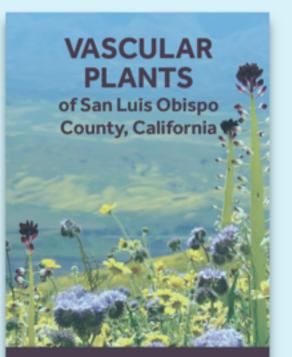
# VASCULAR PLANTS OF SAN LUIS OBISPO COUNTY, CALIFORNIA – EBOOK NOW AVAILABLE

THE HARD COPY RELEASED IN 2023 HAS YET TO BE REPRINTED, BUT THIS ELECTRONIC VERSION HAS JUST BEEN RELEASED BY PACIFIC STREET PUBLISHING IN PDF FORM

https://pacificstreetpublishing.com/shop/vascular-plants-ofsan-luis-obispo-california-e-book

#### \$40.00

Building on the earlier work of Robert Hoover, botanist Dr. David Keil created an updated second edition of Vascular Plants of San Luis Obispo County, California, now with over 2,000 plant species described and 600 color photos of plant communities and native plant species. This complete botanical reference book covers over 3,600 square miles of San Luis Obispo County, California—a biodiversity hotspot with complex geology, varied topography, and nearly one hundred miles of coastline. The county is home to a remarkable diversity of plant life, now all referenced in the user-friendly identification keys, botanical descriptions, and detailed range statements found in Vascular Plants of San Luis Obispo County, California.



David J. Keil Robert F. Hoover Second Edition

*Calochortus uniflorus* is one of the first flowers to bloom on the coastal terraces of San Simeon State Park. Expect to see it on the bluffs south of the San Simeon Business District close to the entry stile, where it is found on clay-dominated soils. It is also found on the terrace north of Arroyo de los Chinos, and south of Arryo de la Cruz. It will nearly always be found with chocolate lily, *Fritillaria biflora*, which is usually dwarfed on these exposed sites. The common name given by Dr. Keil is 'pink star tulip' but it is also known as 'Monterey mariposa lily' and 'Large-flowered startulip'.

Photo:Terry LePage, CANativeGarden.blogspot.com. Used by permission



# Albert Everett Wieslander (1889-1992), Morro manzanita and the start of Vegetation Mapping in California

D. Chipping

Dr. Keil's flora titles the entry of Morro manzanita thus: *ARCTOSTAPHYLOS MORROENSIS* Wiesl. & B.Schreib. and, when on the original Vegetation Committee chaired by Michael Barbour, I remembered the importance attached to Albert Everett Wieslander as a father of vegetation mapping in California. Was this the same Weislander? Most certainly yes.

Rather than use my own words, this quote from the information page of the Library Guides for U.C. Berkeley says it all.

In 1926, the U.S. National Forest Service began a natural vegetation survey of California and those portions of Region 5 National Forests and adjacent areas that extended into Nevada and Oregon. The initial purpose was to provide data in support of statewide land use and fire protection policy development.

The California survey was headed by A.E. Wieslander, Associate Silviculturist with the USFS California (now Pacific Southwest) Forest and Range Experiment Station. The project became known as the Wieslander Vegetation Type Map (VTM) Survey. This Survey mapped the vegetation of 113 15-minute USGS quadrangles, and generated a number of products and data, as well as the maps. Data types included Forest Resource Maps, Supplementary Maps, approximately 13,000 Vegetation Sample Plot data sets, Site Index Maps, Herbarium Specimens, Stand Photographs, a Field Manual of data collection, a Species Symbology and Growth Form List for plant taxa, and Field Journals and Monthly Progess Reports.

When the CNPS Vegetation Program started, the Wieslander Maps were considered one of the earliest quality assessments. On 25 February, 1936, Wieslander was mapping vegetation at the south end of Morro Bay, in which Morro manzanita is identified and named.

So who was **B. Shreib.**, the co-author on *Arctostaphylos morroensis*? She is Beryl Olive Shreiber (1911-1968) of Harvard University, She published "*The Genus Helianthemum in California*" in 1939. Amazon lists a 'Classic Reprint' of her "*Keys and Charts for California Species of Atriplex*". She seems to have been the 'supervising botanist' on this part of the Wieslander survey, but I could not find much more about her.



(Left) Wieslander's caption: Looking north toward Morro Bay. Shows almost dense stand of Arctostaphylos morroensis in foreground. (Right) Wieslander's caption: Los Osos Valley, south of Morro Bay. Shows Arctostaphylos morroensis 8' high, rough shreddy bark. Note that it does not form a burl at the base of stem. A non-spreading species. Assoc species: Ceanothus lompocensis, Adenostoma fasciculatum, Quercus agrifolia, Salvia mellifera, Ericameria ericoides, Lotus scoparius. Note that the Ceanothus cuneatus we recognize today was called C. lompocensis in the caption.

You can find many more of Wieslander's photographs starting at https://guides.lib.berkeley.edu/

**ABOUT THE MAPS:** The survey covers 176,901 km<sup>2</sup>. The maps contain 655 species codes, representing 535 species or sub-species in 229 genera. The 249,630 polygons contain 26,013 unique combinations of species and levels of disturbance. These can be classified into 525 vegetation alliances or provisional alliances using the 2009 edition of the Manual of California Vegetation, or into 53 of the simpler California Wildlife Habitat Relationships (WHR) classes. The most extensive WHR types in the VTMs are Annual grasslands (25,733 km<sup>2</sup>), Chamise-redshank chaparral (14,771 km<sup>2</sup>), Mixed chaparral (9314 km<sup>2</sup>), and Coastal Scrub (7088 km<sup>2</sup>). California's Southwestern ecoregion is the most completely surveyed, with 93% of the area mapped, followed by the Central Western ecoregion (88.2%, including the Bay Area), the Sierra Nevada (71.6%), and the Great Valley (39.7%).

California's Historic Legacy For Landscape Change, the Wieslander Vegetation Type Maps James H. Thorne, Thuy N'goc Le: Madroño, 63(4):293-328 (2016)

## Three Cheers for the Manzanita Keying Workshop Organized for our January 4<sup>th</sup> CNPS-SLO Monthly Gathering!

What a great turnout – several rows of tables with participants looking deeply at their specimens! Thank you to our excellent teachers Dena Grossenbacher and Bill Waycott for breaking down the manzanita keying process for us, pointing out the important features to note in the field and in our hand, and helping to explain the terminology, which describes leaves, twigs, and the inflorescence. We had time to key four different species, all together, as a class, but there were a total of ten mystery species that had been collected, all neatly lined up for people to key on their own after the workshop using the informal key Bill created. Dissecting microscopes were set up so we could marvel at the leaf stomata restricted to the abaxial face of *Arctostaphylos crustacea*. Don't you wish now that you had come along to see that for yourself?

We appreciate the helpers who brought/set-up the microscopes for us, and those who gathered/ organized the specimens from various parts of our County. In addition to Dena and Bill, thank you to David Krause and Mindy Trask for their assistance, as well as to Diana Waycott for bringing copies of the Field Guide to Manzanitas (Kaufmann et al, 2021) to purchase. The workshop was a perfect introduction to Bill Waycott's subsequent program about why manzanitas are so diverse in our County, and why we should go and pay them a visit in person.

If you'd like to access the slideshow and key created for this workshop, please see the following link: https://www.dropbox.com/sh/iehxgy6qs8z1idg/ AAAdo3z6AiXIMsRjESdWZnria?dl=0



Photo by Mindy Trask: Bill Waycott and Dena Grossenbacher leading the workshop

## Nearly One-Thousand Species John Doyle

The question I have, even though many of you may already know the answer, is: *What plant do Algeria, India, Mexico, South Africa, California, Venezuela, Spain, Brazil, China, Guatemala, Bulgaria, France, Texas and Peru (and many more countries and U.S. states) have in common*? Another clue: which genus of plants can be found in these places? California has seventeen species in this genus. They are in the family Lamiaceae. Have you concluded the genus to be, drum roll... *Salvia*?

This is an amazing group of plants. They are colorful, require little care, have very few pests, low water needs, have culinary and medicinal purpose, adapt to many soil types and can tolerate a variety of temperatures, light regimes, and elevations. I became enamored with them as a landscape contractor for their durability and beauty. The *Salvia* genus and all of its hybrids and cultivars are easily found in the nursery trade. Reading up on them, I became intrigued at their geographical range, and wondered how a genus could spread throughout the world. (Australasia has none as far as we know. Any answers?)

I want to recommend them as a "Go To" plant for your garden, and especially, our native species. Dirk Walters has highlighted many *Salvia* species in previous newsletters, and I am unable to match his acumen. However, below, I mention some interesting facts about *Salvia* and I list some of our more popular California native sages.

Common Information: Latin: salvare or salves to 'heal, be well, save.' Can be herbaceous, sub-shrub or shrub. Most pollinated by insects; bees do love them. Leaves arranged opposite with square stems. Flowers: Corolla colorful tube, two-lipped, equal length, two stamens. Most shrub types can be pruned down to 12" in height and will regrow for years.

S. apiana (White Sage): fragrant, bees, as well as bee-keepers love it, "api" is Latin for bee, found Santa Barbara county to Baja in coastal hills.

*S. brandegeei:* 3-4' shrub found on Santa Rosa Island of Santa Barbara and in Baja Cal, larger green, scalloped leaves with 1/2" pale lavender flowers. *S. clevelandii* (Blue Sage): 3-5' shrub, flowers May-July, many cultivars/ hybrids 'Pozo Blue' from Las Pilitas Nursery, 'Winnifred Gilman' became popular when introduced in 1964 at Strybing Arboretum annual plant sale (a volunteer's name who propagated it).

S. spathacea (Hummingbird Sage, Crimson Sage): endeic to CA, prefers shade/ bits of sun, from San Bruno to Orange County, nice fragrance.

#### HORTICULTURE NOW

Welcome to Horticulture Now, a column featuring articles about gardening with California native plants. 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 *Lilium pardalinum* subsp *pardalinum* (Leopard Lily). We hope you like it.

Growing mostly in moist, shady locations, its orange-red spotted flowers standing out like a beacon broadcasting 'pollinators, look at me'. *Lilium pardalinum* subsp *pardalinum* is one of five subspecies of *Lilium pardalinum* and is commonly called the Leopard Lily. This is important because it is also, sometimes, called the Tiger Lily by mistake.

Leopard Lily occurs from Ventura County (central California) northward into southern Oregon and eastward to the Sierra Nevada Mountains, ranging in elevation to about 6,000 feet. Here, locally, Leopard Lily is not abundant but has been documented (as per Jepson eflora, <u>https://ucjeps.berkeley.edu/eflora</u>): by M. Walters and M. & J. Wetherwax on 7/02/2000 at first ridge W. of Cerro Romualdo, Camp San Luis Obispo; by D. Keil on 6/23/1998 at the Baldwin residence on O'Connor Way, west of San Luis Obispo; by D. Keil on 11/02/2010 at lower Prefumo Canyon Rd; and by A. Eastwood and J.T. Howell on 6/14/1938 in Prefumo Canyon.

In the garden setting, Leopard Lilies' brightly colored orange-red spotted flowers can bring a sense of joy, hope and confidence to the long summer days of June through September. It prefers moist, but not soggy, soil, in mostly shady locations Along the coast Leopard Lilies can be planted in full sun. Lilies are frequently planted along fence lines, pathways, groupings of rocks, or among ornamental creek beds. With a reputation of being simple and easy to please, they can be hard to find, so I recommend searching for an on-line specialty nursery. Never purchase wild-collected bulbs.

Even though their flowers do not produce nectar and have no scent, Leopard Lilies are frequently used to attract pollinators to the garden. The pollen is sticky and easily transported by insects who find the flower color hard to resist, ensuring seed production and the next generation. Upon completion of flowering, the dying two – four-foot flower stocks become covered with bulblets along their leaf nodes. These bulblets fall to the soil below and become rooted. These stem bulblets can be collected for propagation purposes. The roots consist of rhizomatous bulbs made of many scales. These scales can also be separated for propagation purposes, I recommend this method, as it is the easiest.



Photo: Craig Cunningham CNPS-SLO Photo Collection

Lastly, of most important note, the Leopard Lily pollen is poisonous to felines. This is not the case with deer, mice and rabbits who will browse bulbs when they are emerging from their winter dormancy, so protect new shoots temporarily with chicken wire enclosures. My experience is that Leopard Lily has few insect problems. Aphids, spider mites and non-native lily-leaf beetle are occasional concerns.

There are few references to early uses of *Lilium pardalinum* species by Native Americans; however, some include harvesting bulbs for food and medicinal uses. They were primarily used to treat respiratory problems as mentioned in a 2016 CNPS *Fremontia* article (https://www.fs.usda.gov/psw/publications/lake/psw 2017 lake002 anderson.pdf). Here locally I'm guessing due to small populations of Leopard Lily, it was not an important source of nutrition. I do not recommend eating California native bulbs.

In conclusion, *Lilium pardalinum* subsp *pardalinum* (Leopard Lily) is a wonderful and delightful bulb for any garden where shady conditions are dominant. Its ability to adapt to various garden conditions with very little care or maintenance lands it a place as February plant of the month.

#### Until next time, Happy Gardening, John Nowak and Suzette Girouard

EDITOR"S NOTE: Many of the locations listed in the Jepson Manual probably represent human introductions, which is true of a population at the wetland at 4375 San Simeon Creek Road, as was told to me by Shirley Bianchi (now, sadly, deceased). Look but do not trespass. This site was collected by Malcolm McLeod in 1987. Another population lies in a wetland on the east side of Cypress Mountain on a private ranch. This site was collected by David Keil in 2017. These can be found in the Hoover Herbarium.

"You don't need a weatherman to know which way the wind blows" Bob Dylan's Subterranean Homesick Blues

*Elymus pacificus* Pacific Wildrye Morro Bay sandspit foredunes



#### 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. 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.



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