

# CALIFORNIA NATIVE PLANT SOCIETY MARIN CHAPTER



*Cerastium viride* - field chickweed, by Vernon Smith

## March 2021 Newsletter

### Conservation Highlights

**Sea level rise threatens to inundate Bothin Marsh Open Space Preserve.** Following studies of its geomorphology, ecology, and options for conserving the natural environment, public comments were invited on proposed plans for conserving the marsh and locating its multi-use trails. Marin Chapter is evaluating these plans' effects on the marsh's native plant communities and associated wildlife habitat. Adaptation of Bothin Marsh may become an example for other planning agencies along the San Francisco Bay's shoreline.



*Chloropyron maritimum* ssp. *palustre* -  
Point Reyes salt-marsh bird's-beak by Vernon Smith

Bothin Marsh is a 106-acre preserve along Richardson Bay near Tam Junction on Hwy 1. Although both the very popular and well used Mill Valley/Sausalito Multi-Use Path (Bay Trail) and the Charles McGlashen Multi-Use Path traverse it, the marsh hosts unique plant communities and wildlife habitat. The largest population in San Francisco Bay of Point Reyes bird's-beak (*Chloropyron maritimum* ssp. *palustre*), *Chloropyron maritimum* ssp. *palustre* (Pt. Reyes salt-marsh bird's-beak) a CNPS Rank 1B species (rare and endangered throughout its range) occurs in the marsh. Ridgway's rail and California black rail, both federal and state listed bird species, are also present.

Much of the marsh and portions of the trails are inundated during king tides now. Further sea level rise of 10 inches is predicted in the next ten years, with 3-4 feet inundation of the marsh by

2050, and up to 8 feet by 2100. The rising water, strong waves, longer periods of drought, and intense storms caused by climate change would likely erode the marsh shoreline, converting the vibrant marsh to mudflat.

Marin County Parks collaborated with scientists to study the effects of sea level rise on Bothin Marsh, publishing *Bothin Marsh Geomorphology, Ecology, And Conservation Options*. They asked other local agencies and organizations to consider the studies therein and resulting nature-based solutions. Then they partnered with Golden Gate Parks Conservancy (via One Tam) to launch this *Evolving Shorelines* planning project.

The Initial Planning Memo, dated June 2020, outlined three alternative conceptual plans to conserve the trails and save the marsh:

- 1 – Raise the trail 4 feet in place and widen it to 18 feet;
- 2 – Span the South Marsh with a causeway to raise it above the marsh and renew tidal action;
- 3 – Ring the South Marsh’s perimeter and move portions of the trail parallel to Shoreline Hwy.

All three alternatives would create marsh ecotones on the slopes of levees and upland habitat on their tops. “Mounds” would be constructed inside the levees as refugia for plants and animals. Adding silt to the marsh in “thin lifts” to raise the level of the marsh above a mud flat is also being considered.

The project will require collaboration among the community, public agencies, and partners. Outreach to the community has included biking and hiking tours, guided kayaking trips, historical ecology talks, etc. An *Evolving Shorelines* questionnaire queried the public’s preferences for use of the trail: walking, biking, bird watching, commuting, as well as input on the proposed alternatives. According to Veronica Pearson, the County Co-Manager for the Bothin Marsh project, the result of the public’s responses will be published later.

Lack of funding has delayed project planning beyond the conceptual phase. The CEQA process will not begin in 2021 as planned. Hopefully, the California Coastal Conservancy will award a grant for definitive project planning, environmental analysis, and permitting.

Links for more information:

<https://www.onetam.org/sites/default/files/pdfs/BothinMarshGeomorphologyEcologyandConservationOptions.pdf>

<https://www.marincountyparks.org/projectsplans/land-and-habitat-restoration/bothin-marsh-community-vision>

[https://www.onetam.org/sites/default/files/pdfs/bothin%20vision%20doc\\_0.pdf](https://www.onetam.org/sites/default/files/pdfs/bothin%20vision%20doc_0.pdf)

**The City of Novato is considering the approval of a Costco gas station.** With plenty of gas stations already nearby, this facility may cause increased CO2 emissions in the area by attracting more vehicles with discounted gas prices. Building more fossil-fuel infrastructure is incompatible with California State and Novato City climate-change resolutions. In addition, any spill could pollute the nearby pristine marsh, and its underground storage tanks could be compromised by sea-level rise.

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**FERN (Fire and Environment Resilience Network) is working with the Environmentally Sound Practices Committee of the Marin Wildfire Protection Authority (MWPA) to finalize their list of Best Management Practices (BMP) for treatment of wildfire fuels in wildlands adjacent to urban areas aka Wildland Urban Interface (WUI). This list will be combined with BMP's for defensible space near structures and carbon management for submission to the MWPA Board for incorporation into the design of MWPA funded projects.**



**The City of San Rafael has passed an ordinance to extend vegetation management practices citywide** from being only required in the WUI. FERN commented on the draft ordinance requesting incorporation of environmentally friendly BMPs.

**Marin Chapter has endorsed the appointment of Stefan Parnay** as Marin County Agricultural Commissioner based on his record of supporting environmentally friendly practices.

**Marin County has completed the repaving of Sir Francis Drake Blvd.** in Pt. Reyes National Seashore to the Pt. Reyes Lighthouse. The Chapter has been closely watching the mitigation measures for sensitive species along its roadsides, especially the showy but rare Pt. Reyes meadowfoam (*Limnanthes douglasii* ssp. *sulphurea*).



*Limnanthes douglasii* ssp. *sulphurea* - Point Reyes meadowfoam along SF Drake Blvd. by Woody Elliott

**Marin County Parks released the draft Initial Study/Mitigated Negative Declaration for the Cascade Bridges Project** in Cascade Canyon Preserve. It involves installing two bridges over the creek and improving trails. Marin Chapter will look at the proposed mitigation measures for minimizing impacts to "uncommon" plants and comment on the project.

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## **Marin Chapter Meeting: "Mycorrhizal fungi: how they interact with our native plants" Guest Speaker: Tom Brunns**

March 8 @ 7:30 pm via Zoom  
Zoom link to attend will be emailed that morning.

The overwhelming majority of plants have a mutually beneficial association with fungi in their roots. These mycorrhizal symbioses function like markets in which plants "purchase" mineral nutrients from fungi using sugars the plants produce in photosynthesis. This talk will cover the basic features of mycorrhizal symbioses and will emphasize the way that they affect plant growth and distributions.

The fungi involved are obligately associated with the plants, meaning that they are unable to grow and reproduce in the absence of a mycorrhizal association. Plants vary in their dependence with some (e.g., Pinaceae, Fagaceae) that are obligately associated with the

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mycorrhizal fungi. Others (e.g., *Fescue* spp.) are facultatively associated and can live without the association.

Most plants can associate with many, unrelated, mycorrhizal fungi, but some non-photosynthetic plants (e.g. *Monotropoideae*, *Corallorhiza* spp.) are highly specific to small groups of closely-related fungi. This dependence on specific fungi likely limits distributions of these plants.

Conversely, most fungi can associate with multiple plant species, but a few are specific to particular plants. Some, such as *Suillus* and *Rhizopogon* are specific to particular genera in the Pinaceae, and they enable invasions of their plant hosts by providing “spore banks” that allow their host to find compatible fungi at the edge of the forest where other compatible mycorrhizal fungi are not available.

Tom Bruns is an emeritus professor in the Department of Plant and Microbial Biology at the University of California, Berkeley. He received an MS in Botany from the University of Minnesota in 1982, where he worked on insect mycophagy in the boletes, and a PhD in Botany from the University of Michigan in 1987, where he worked on the molecular systematics of *Suillus*. He served as a postdoctoral associate at UC Berkeley from 1987-1989, where he developed PCR methods for use in fungal systematics and ecology, before joining the faculty in 1989. His publication record includes over 200 papers primarily in the fields of fungal ecology and systematics: [https://scholar.google.com/citations?hl=en&user=9i2wHgMAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=9i2wHgMAAAAJ&view_op=list_works&sortby=pubdate).

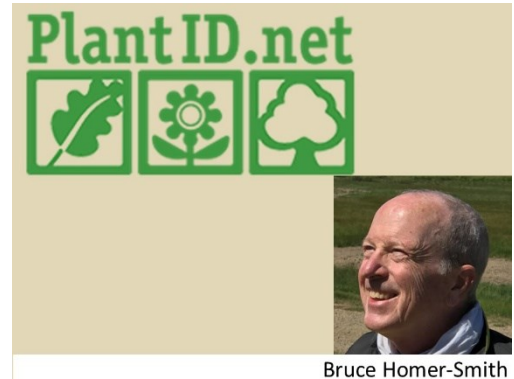
He is best known for his work in ectomycorrhizal systems where he has contributed to our understanding of community and population structure, spore banks, mycoheterotrophic plants, spore dispersal, and molecular method development. His current work is focused on post-fire saprobic fungal communities, and involves experimental fire manipulations, coupled with gene expression and soil metabolomics.

He has mentored 19 PhD students and 19 postdoctoral associates. He has taught multiple courses on mycology at Berkeley and won the Weston Teaching Award from Mycological Society of America in 2007 and the Distinguished Teaching Award from the College of Natural Resources at UC Berkeley for his efforts. He served as president of the Mycological Society of America in 2011-2012, the president of International Mycorrhiza Society from 2015-2017, and received the Distinguished Mycologist Award in 2018 from the Mycological Society of America for his career achievements in the field.

More details on his early path into mycology can be gleaned from his interview for the Oral History for Mycology: <https://www.youtube.com/watch?v=hlUeRjUTb2U>

## Volunteer Spotlight: Bruce Homer-Smith

Exploration, curiosity, astonishment, patient collaborators, digital expertise, dedication, and a sore derriere are behind Bruce Homer-Smith's creation of a wonderful online tool: [PlantID.net](http://PlantID.net). Spending much of his life in Marin, Bruce remembers crossing Raccoon Strait in a canoe from Tiburon to explore Angel Island. Such adventures inspired him to learn about the plants he found and then to share that knowledge with others. His website [PlantID.net](http://PlantID.net) allows even novices to identify California's wild plants. It is used by plant lovers for personal enjoyment as well as for conservation and education.



Bruce Homer-Smith

The original inspiration for PlantID.net came during a cross-country bike ride that Bruce and his wife Winnie took years ago from Seattle to Boston—a 90 day ride! That meant six hours per day in the saddle. The first several weeks were physically difficult (getting used to a hard bike seat and bumpy roads). Eventually Bruce realized that if he focused on how sore he was, he wasn't going to have fun. He needed to occupy his mind, so he set out to learn the names of plants he encountered along the way. He asked farmers, lunch-counter diners, and passers-by to identify local plants. He was astonished that almost no one knew about them! Since Bruce is a database programmer, he started dreaming about how he could organize plant information into a database, which improved his mind set while peddling many hours across the country.

While Bruce was living in Sausalito, he went out several times a week to Mt. Tam, particularly to Railroad Grade. It had great southern sun exposure, manzanitas, and ceanothus. "The bright light, great views, and interesting serpentinite soils all made for good botanizing up there. I rode my mountain bike with an oversized saddle bag holding my camera gear and stopped at every plant I didn't know. Railroad Grade was the location for my first plant guide."

When Bruce started his plant cataloging project he sent photographs of plants to Doreen Smith for proper identification. Then his ambitions led him to John Malpas, web developer at Calflora.org, who offered him virtually all of his plant data. John said the most common question asked of Calflora staff was, "How can I learn to identify a plant?" He encouraged Bruce to create an ID-oriented site that was complementary to Calflora.org. John helped Bruce fill his database with data on over 10,000 plants that Bruce further described and photographed. Bruce also collected local plant lists, such as those on the Marin Chapter's website, to help users focus on the plants at particular locations.

As PlantID.net developed, Bruce continued to rely on collaborators. Dave Long brainstormed early ideas, digitized William Follette's plant slide collection, and helped him present PlantID.net at a CNPS Conservation Conference. Dave always made himself available when I had questions or sought advice. Kristin Jakob also shared her extensive knowledge with me, combing through spreadsheets of search data, authoring several (trail) guides, and sharing her incredible artwork on PlantID.net.

In addition, Doreen Smith patiently helped Bruce with "a thousand beginner questions." Kate Wing helped him add mapping information and introduced him to the Muir Woods National

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Monument staff. Many Marin Chapter members have corresponded with him about ideas and offered corrections.

Bruce remains ambitious with his PlantID.net invention. His latest project is grasses in collaboration with Kristin Jakob. “Grasses are everyone’s bugaboo since they’re so hard to differentiate.” PlantID.net’s layered searching is a boon that allows users to enter what they know (location, awns, flower arrangement, grass type, etc.). It combines pictures and captions designed to help a beginner get to know the basics of plant identification. PlantID.net is designed to be user friendly. As Bruce says, “Have fun with it!”

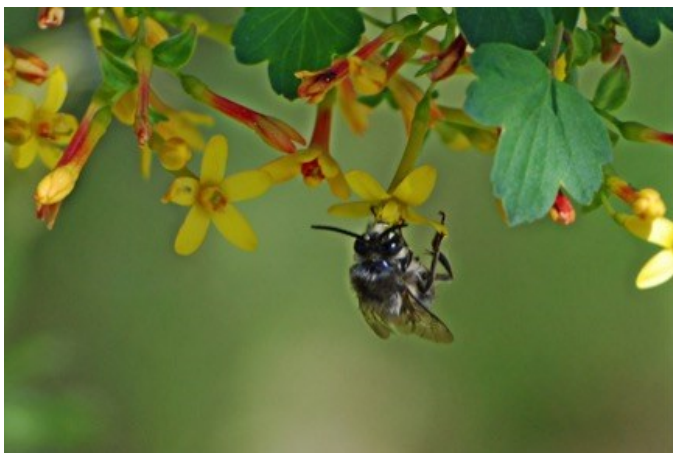
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## Gardening in Harmony with Nature by Charlotte Torgovitsky

In this edition:

- **The Rainy Season is Our Planting Season.** Early in the rainy season is when many of our native plants come alive again – and what a wondrous thing that is!
- **Please Don’t Call It Dirt!** Soil is a living ecosystem populated by an interconnected web of life; dirt is the stuff you sweep out of your house to throw away.
- **Slender Salamanders.** Creatures of the Soil

Ribes aureum - Golden Currant



### The Rainy Season is Our Planting Season

Early in the rainy season is when many of our native plants come alive again – and what a wondrous thing that is! With no more than a tenth of an inch of measurable rainfall, the nascent buds on the dormant Golden Currant (*Ribes aureum*) start to swell and unfurl brand new leaves, and within a month the shrubs are full of little yellow flowers! Salvias that looked nearly dead to an untrained eye put on new growth – both leaf and root, and soon enough flowers will follow. As the days lengthen and warm up, the insects will come alive. Wildflower seeds that were dropped in late spring or summer are just waiting for a bit of rain to germinate; I love looking for these tiny plantlets and challenging myself to identify the species.

Gardeners come alive too and are ready to once again add more plants to their gardens. However, before you purchase plants, make sure your soil is prepped and you have the space for the mature size of the new plants. Whether you are creating a brand-new garden or making room for more plants in an established garden, the single most important thing you can do is to focus on building healthy soil.



Ribes aureum - Golden Currant Planted in part shade under a live oak so no irrigation or additional watering is necessary in summer.

## Please Don't Call It Dirt!

Soil is a living ecosystem populated by an interconnected web of life; dirt is the stuff you sweep out of your house to throw away. The soil food web includes creatures that are scavengers, decomposers, and predators, as well as many types of fungal growths. These living beings, many of which are microscopic, all work in harmony to improve soil texture and friability, increase water retention and heat absorption, and moderate the soil pH. A healthy soil food web provides a full spectrum of nutrients and trace elements, in the forms that are best used by plants and at the time they are most needed by the plants; it also helps plants fight certain pathogens. In nature, the food web is developed and maintained from the top down, with leaf and plant litter left in place to decompose naturally. Organic gardeners build healthy soil by mimicking nature, always feeding the soil from the top down, thereby avoiding too much disruption to the creatures of the soil. Organic gardeners recycle plant materials on site, either by mulching under and around all plantings, creating compost in managed piles, or creating brush piles. Organic gardeners will often use sheet-mulching when creating new planting areas to build healthy soil. Sheet-mulching is a method of composting in place; layers of organic material are used to smother existing unwanted plants (a lawn, non-native groundcovers, or just unwanted weeds). Those layers break down over time to create fertile soil. For brand new planting areas, it really pays to sheet mulch about a year ahead of planting, especially if you must rid your garden of certain non-native invasive weeds! Some people like to have a soil test done in a lab, but there are simple ways to test for your soil type. A percolation test just requires digging a hole, filling it with water, and timing how long that water takes to drain. A jar test is also easy and will help you determine if your soil is sandy, loamy, or more clayey. Complete instructions for these tests can be found in the "Watershed Approach to Landscaping" book, available on the Marin Municipal Water District website.

All of these 'soil conditions' need the same remedy: compost, compost, compost! But remember that compost is an ephemeral thing; it gets 'used up' and needs to be replaced regularly. This occurs normally in nature, as each season a new layer of 'duff', leaf and plant litter, falls and remains in place to decompose naturally.

### Slender Salamanders - Creatures of the Soil

When I'm working in my garden during the rainy season and happen to move a log or stone or even just rough up some compost or leaf litter, I will sometimes disturb the delicate little California slender salamanders (*Batrachoseps attenuatus*). Slender salamanders are found along the California coast, where there are twenty different species, each with very restricted ranges. They are predators of even smaller creatures, and individual populations have a 'home range' that may not be much more than a foot or two in diameter. As the weather warms, and the soil starts to dry out, they move further down into the soil; and during the rainy season they migrate back up.

These salamanders are no more than two or three inches long, really slender, and with legs so tiny that one can easily think it's an earthworm. They are motionless at first, so look closely, and perhaps you can even count the toes; slender salamanders have just four toes on the front legs, but five on their back legs. One can also tell the sexes apart; males have a blunt upper snout, but the lower jaw is pointed.



*Batrachoseps attenuatus* -  
California slender salamander by Ann Elliott



Salvia spathaceae, one during the rainy season and the other (exactly the same plants) during the dry dormant season. They are planted under the canopy of a live oak so no irrigation or additional watering with these plants. A bit more than 1/10 inch of rain to restore them.

For more on habitat gardening, and sustainable, organic methods; visit [www.homegroundhabitats.org](http://www.homegroundhabitats.org)

## Spring Online Plant Sales

Our gardens have been a welcome respite during this time of lockdown and we are very pleased to offer everyone some great new plant choices for spring planting. Offerings in March include:

- locally sourced native seeds.
- local flowering shrubs that provide resources for pollinators, birds, and other creatures.
- selections from the [Plant Replacement List](#) alternatives to fire-prone plants.



*Dudleya, Salvia, Sisyrinchium*, and other plants in the March Online Plant Sale

### March Online Plant Sale

- **Opens** at 8 am on Wed. March 17
- **Closes** 6 pm on Wed. March 24
- **Pickup** on Sat. March 27 between 10:30 am and 1:30 pm, in the parking lot of Bon Air Center, Greenbrae.

Welcome to another year of online plant sales! In addition to live plants, we will also be selling our popular line of locally sourced native seeds.

We are planning a special focus on important local flowering shrubs that provide resources for pollinators, birds and other creatures. When we think about providing for pollinators, bold and beautiful wildflowers might come to mind. Our landscaping shrubs and trees are equally

essential, however, and provide critical sources of nectar and pollen, particularly for native bees. Many of these bees emerge early in the spring and depend on the early-blooming shrubs such as manzanita and ceanothus.

The Marin chapter recently compiled a [Plant Replacement List](#) for the use of homeowners who have been required to remove fire-prone plants from their property. We are working to source many of the shrubs on this list and have them available for the March and April sales. These will be 1-gallon size; gardeners interested in larger sizes should order them through the four nurseries we list with the Plant Replacement List. All of these species offer great choices for filling the gaps left by plant removal as well as increasing the biodiversity in your yard.

***March sale dates:***

*Sale will open at 8 am on Wed. Mar. 17th*

*Sale will close at 6 pm on Wed. Mar. 24th*

Sales will take place through the state CNPS web site:

*Link to the sale site will be posted here by Wed Mar 17th*

All orders must be picked up on Sat. March 27th between 10:30am and 1:30pm, in the parking lot of Bon Air Center, Greenbrae. Your order will be boxed and ready for collection. If you cannot come during those hours, please find a friend or neighbor who can collect your order; we can't hold orders. All those who place orders will receive an email with specifics on pickup. Please print out your confirmation receipt and bring it with you to pick up your plants.

Questions or problems? [marincnpsplantsale@gmail.com](mailto:marincnpsplantsale@gmail.com)

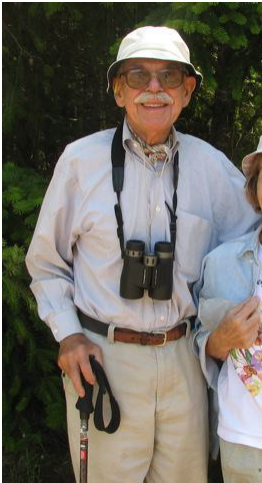
**Some of the plants we will be offering in March:**

Ceanothus 'Antoinette', 'Concha' and 'Yankee Point', Arctostaphylos 'Dr Hurd', spicebush, Nevin's barberry, coffeeberry, yellow-twigg dogwood, blue elderberry, snowberry, lemonade berry, apricot mallow, California fuchsia 'Marin Pink' and 'Everett's Choice', silver bush lupine, Catalina perfume, pipevine, Pacific aster, gumplant, seaside daisy, scarlet monkeyflower, white-flowering grass, yellow-eyed grass, sneezeweed, pearly everlasting, sea thrift, fringe cups, 4 kinds of dudleyas, soap lilies, deer grass, giant wild rye, Sages: black, white, purple, Bee's Bliss, Pt. Sal Spreader, 'Pozo Blue', 'Winnifred Gilman'

**Additional plants available at the April sale:** Narrow-leaf milkweed, sticky monkeyflower, all the spring wildflowers including many annuals

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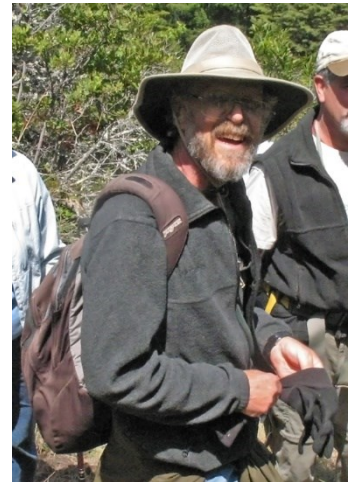
# The Marin Chapter of the California Native Plant Society is pleased to offer the Howard-Kohn Memorial Scholarship for the 2021-2022 Academic Year



Ken Howard

Joe Kohn

The Marin Chapter of the California Native Plant Society is pleased to offer a scholarship to undergraduate and graduate students doing research on plant systematics, plant ecology, plant physiology, plant community restoration or other related botanical studies of native plants that grow in habitats in Marin County or other local habitats in Central and Northern California. Students researching topics related to native plant and native habitat conservation are especially encouraged to apply.



One \$3000 **Howard - Kohn** scholarship will be available. Evaluation of student applications will focus on the stated purpose of the research, experimental design, and overall impression of the research project. Extra consideration will be given to proposals for work on one or more species that grow in Marin County, work to be carried out in Marin County, and work having special potential for improving conservation of California native plants or educating the public about them.

Additional smaller scholarships may also become available throughout the year; please continue to check the website for details.

*Application Deadline: Sunday, April 1, 2021* [More Details and Application Form](#)

Note that during the shelter-in-place order, documents may be submitted electronically to [pdasilva@marin.edu](mailto:pdasilva@marin.edu)."

## 2020 Howard-Kohn Scholarship - awarded !

The Marin Chapter is pleased to announce the results of our 2020 scholarship program. Sherilyn Reinhart was awarded the 2020 Howard-Kohn Memorial Scholarship for the project "The Effects of Restored Riparian Forests on Microbial Communities and Soil Carbon Stock." Chris McCarron received a Merit Scholarship for the project "Population Genetics of the Serpentine Endemic Leather Oak (*Quercus durata*)."



2020 Scholarship Recipients:  
Sherilyn Reinhart & Chris McCarron

## PlantRight Spring Nursery Survey – Volunteers Needed

[PlantRight](#) works with California's nursery industry to keep invasive plants from landscapes and to promote the sale of exclusively non-invasive alternatives. Each spring, volunteers from Master Gardeners and other organizations conduct a survey of retail nurseries for PlantRight to gather information about the retail market for invasive plants in California. The nursery survey for Spring 2021 will take place March 8 to June 30 with safety protocols in place. Participation is easy, educational, and fun. [Click here](#) to help with this project and survey a nursery in your area.



## I'm Redbottoms!

Scientists call me *Dudleya farinosa*. My cuteness has unfortunately come with a price. Poachers have taken thousands of me from shorelines and rocky outcrops in Northern California. But there's hope! Assembly Bill 223 will make poaching *Dudleya* like me explicitly illegal.



Marin Chapter's *Dudleya* mascot  
*Dudleya farinosa* - bluff lettuce  
as envisioned and designed by David Bryant



Carol Ralph replants a rescued *Dudleya*.  
photo by James Adam Taylor

[Read more. . .](#) #StopPlantPoaching

## Check out [CNPSMarin.org](https://www.cnpsmarin.org)

- [Plants of the Season Gallery](#)
- [Marin Rare Plants Gallery](#)
- [Native Plant Garden Resources](#)
- [Plant Replacement List](#) - Ideas for Replacing Fire-Prone Plants
- [Solo Field Trip Ideas](#)



*Primula hendersonii* - shooting stars by Vernon Smith

## Upcoming Marin Chapter Events - 2021

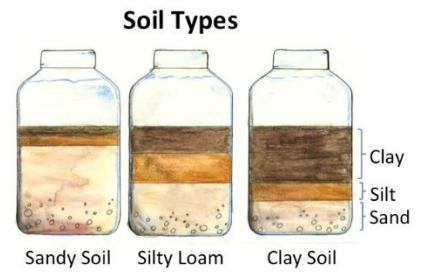
- **Board Meeting - Mar. 1 @ 7 pm.** Anyone who is not a member of the board and would like to attend please contact David Long at [sfdlong@ix.netcom.com](mailto:sfdlong@ix.netcom.com).
- **Chapter Meeting "Mycorrhizal fungi: how they interact with our native plants"**  
**Guest Speaker: Tom Bruns - Mar. 8 @ 7:30 pm.** Zoom link to attend will be emailed that morning. ([See description above.](#))
- **Online Plant Sales**
  - **Sale: March 17 to 24, Pickup date March 27 - [See above.](#)**
  - **Sale: April 14 to 21, Pickup date April 24 -** This sale will focus on flowering perennials, bulbs, and annuals for spring and summer color and to support our pollinators.
- [To borrow a weed wrench from CNPS Marin](#), please contact Eva Buxton (Conservation & Invasive Species Chair) at [evabuxton@sbcglobal.net](mailto:evabuxton@sbcglobal.net)

## [CNPS Events](#): Statewide and Sponsored by Other Chapters

- [Naturehood Gardening: Maximizing Habitat](#) - Monthly Hort Webinar, Mar. 4 @ 5:30 pm (first Thursdays)
- [Native Plant Parkways: Digging Deeper for Long Term Success](#) Mar. 18 @ 5:30
- [Upcoming and Recorded Virtual Native Plant Events and Webinars](#)

## Kids' Corner (for the young at heart)

To learn more about SOIL structure and texture:  
Try this ["Soil Testing Fun"](#) from Family Garden Live,  
Or if you learn better by watching videos: Check out:  
["The Soil Profile"](#) by Champak SciQ, or  
["Why Different Soils Feel Different"](#) from SciShow Kids



To explore soil and mycorrhiza watch:  
["The Living Soil Beneath Our Feet"](#) from California Academy of Sciences  
["Mycorrhiza: what connects fungus and plant"](#) from Bavarian Forest National Park

Contact me to submit articles and ideas for improving this new endeavor. **Add [cnps@cnps.org](mailto:cnps@cnps.org) to your email contacts** to avoid news from the Chapter going to promotions, spam, or junk. Thank you.

Ann Elliott, Newsletter Editor

[annonfire@gmail.com](mailto:annonfire@gmail.com)



*Oxalis oregana* - Redwood sorrel and polypody fern  
By Ann Elliott



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