

# CALIFORNIA NATIVE PLANT SOCIETY MARIN CHAPTER

## September 2023 Newsletter



*Lonicera involucrata* - twinberry honeysuckle in Tomales Bay State Park

photo by Ann Elliott

### Marin Chapter September 2023 Meeting

#### "The importance of flowering season duration and planting for pollinators"

Guest Speaker: **Dr. Rachael L. Olliff-Yang**

**Monday, September 11 @ 7:30 pm**

Flowering time in California follows patterns driven by the cool wet winters and hot dry summers of our Mediterranean-type climate. The rapid life cycles of our native invertebrate pollinators (including bees, flies, and butterflies) are tightly in sync with these rhythms. However, climate change is causing shifts in the timing and abundance of plants and pollinators due to changes in temperature and moisture cues. These shifts can strain mutualistic relationships and lead to population decline. Sufficient flowering resources across the season, as well as extended flowering at the beginning and end of the season, may aid in supporting plant-pollinator mutualisms.

In this talk, Rachael will discuss the mechanisms that influence the flowering duration, and how strategic planting to extend flowering time—whether in restorations, hedgerows, or your home garden setting—can support both pollinator and plant populations. She will also discuss how to keep California Biodiversity Day (Sept 7th!) going all year long, and extend an invitation to the upcoming 30x30 Partnership Gathering in Riverside CA.



female bumblebee on Howard McMinn Manzanita





Dr. Rachael Olliff-Yang  
botanizing

Dr. Rachael Olliff-Yang is a plant ecologist, writer, and educator, and works as technical science support for California's 30x30 initiative - conserving 30% of California by 2030. Her research focuses on plant flowering time and management strategies to respond to climate change impacts. She is a resident of Novato, where she teaches nature classes for kids and is an enthusiastic volunteer for the Marin CNPS chapter.

Rachael completed her Masters degree in Biology at Humboldt State University examining the timing of Beach pea (*Lathyrus littoralis*) flowering and Silver bee (*Habropoda miserabilis*) nesting in the coastal dunes. After examining the influences of climate change on this mutualism, she was driven to explore potential management techniques to respond to predicted impacts. This led her to her PhD work with David Ackerly at UC Berkeley where she examined the influences of abiotic and biotic drivers of flowering time. She continues her work in

conservation by supporting the science and practice behind 30x30. Rachael is passionate about conservation and making science and nature accessible to all.

[Read more. . .](#)    [Register for this Zoom meeting here.](#)

## Marin Chapter Field Trips

Field Trip Guidelines:

- **Email Susan Schlosser** [scschlosser52@gmail.com](mailto:scschlosser52@gmail.com) to sign up for a field trip, as participants are limited.
- **Electronically sign** the CNPS Liability waiver for the trip (Susan will provide the link.)

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*Quercus lobata* - valley oak on Mt. Burdell  
Photo by Susan Schlosser

## Mt. Burdell Oaks

Tuesday, **September 12, 2023** - 8 am to noon      Leader: **Susan Schlosser**

We'll take a winding route through the central area of Mt. Burdell Open Space Preserve to see the acorns of coast live oak (*Quercus agrifolia* var. *agrifolia*), valley oak (*Q. lobata*), California black oak (*Q. kelloggii*), Oregon oak (*Q. garryana* var. *garryana*) and blue oak (*Q. douglasii*). The bark, leaves and next year's buds are other characteristics that help identify local oaks. If participants are interested we can sample relative abundance of acorns using a method developed by Dr. W. Koenig and used for his many oak studies.

Starting at the San Andreas Gate we'll see the first three *Quercus* species within 0.4 mile and 45 minutes. We'll take a break, enjoy coffee cake (provided by the field trip leader.) Then we'll head up to Hidden Lake (1.46 miles, 540 feet elevation gain) to see *Q. garryana* var. *garryana*.) Along the way, wildflowers we may see include yellow tarweed (*Hemizonia congesta* ssp. *lutescens*), pink Spanish-clover (*Acmispon americanus*), turkey mullein (*Croton setigerus*), centaury (*Zeltnera* sp.) and branching twiggy-wreath (*Stephanomeria elata*). At Hidden Lake, this time of year, we'll see button-root celery (*Eryngium aristulatum* var. *aristulatum*), umbrella sedge (*Cyperus eragrostis*), frog-bit (*Phyla nodiflora*), Baker's navarretia (*Navarretia leucocephala* ssp. *bakerii*), and pennyroyal (*Mentha pulegium*). From Hidden Lake we'll walk down to Deer Camp Fire Road via Middle Burdell Fire Road (1 mile, 225 feet elevation decrease) to see a grove of *Q. douglasii*. From the *Q. douglasii* area, we'll head back to the San Andreas Gate.



**Meet: San Andreas Gate** The route is 4.5 miles in length. We'll take two or three breaks for water and snacks. Most of the field trip is on fire roads. The single-track trails we'll take to some trees for 50 to 100 feet, are soft soil and nearly level. The biggest challenges of this field trip are the distance and the heat. It gets quite warm, over 80 F, by about 10:30 am. Bring plenty of water. About 35% of the route is in shade and the rest is open sun. You may want to bring something to sit on, as our breaks will be near logs, grassy banks or rocks. If it is an extremely hot day (predicted over 90 F) the field trip will be rescheduled.

After this field trip, if anyone is interested, we can drive over to the end of Simmons Lane. This trailhead is located on the eastern end of Mt Burdell Open Space Preserve. An area of leather oaks, *Quercus durata*, is located ¼ mile from the trailhead. We can view the acorns on these trees, located on a serpentine outcrop. [Read more...](#)

For descriptions and locations of the oaks in Marin County, check out the CNPS Marin webpage "[Oaks of Marin](#)" compiled by Doreen and Vernon Smith.



*Quercus kelloggii* - black oak on Mt. Burdell  
Photo by Susan Schlosser



*Quercus garryana* - Oregon oak on Mt. Burdell  
Photo by Susan Schlosser

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## Save the Date: Fall Plant Sale is Oct 12-16

The fall plant sale will open for online ordering on Thursday, **October 12** at 6 pm and close on Monday, **October 16** at 6 pm.

Customers can collect orders on Saturday, **October 21** at Bon Air Shopping Center from 10:30 am to 1:00 pm.

The focus in fall is on our beautiful and beneficial shrubs. Check our [website](#) for details on plant species, coming soon.



*Ceanothus 'Concha'* The plant sale will offer several varieties of ceanothus. Photo by Laura Lovett

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## California Biodiversity Day is Thursday, September 7

Help celebrate California's biodiversity this year during the week of Sept. 2-10, 2023 and learn why biodiversity is so critical. Events will be held locally as well as statewide; check out the [California Biodiversity Day website](#) for full details

"[Preserving biodiversity is a responsibility](#)" By Paul da Silva, published in the Marin Independent Journal 8/18/2023



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## Native Plant Gardening Group

Join the Native Plant Gardening Group in sharing successes and concerns through group emails. You can join the group by answering this [short questionnaire](#).

A native plant seed and plant swap with an informal tour of Mary Kyle's garden is planned for Wednesday, 9/20.



*Ribes sanguineum* - pink flowering currant Photo by Ann Elliott

# Ring Mountain Wildflower Docent Program

Eva Buxton

The Marin Chapter CNPS and Marin County Parks (MCP) recently wrapped up the first year of the [Wildflower Docent Program](#) on the Ring Mountain (RM) Open Space parcel. Volunteer docents were trained and available to visitors on the preserve from April to June 2023. They helped visitors view and identify plants without harming them or their habitats. The Tiburon mariposa lily (*Calochortus tiburonensis*) is the iconic plant on the preserve, but docents helped visitors identify many other common, uncommon, and rare plants associated with Ring Mountain's serpentine substrates.



*Calochortus tiburonensis* - Tiburon mariposa lily by William Follette

Planning for the program started in Fall 2022 with development of reference documents. Kristin Jakob and Eva Buxton prepared a list of 60 species (out of nearly 400 species present on the preserve) to be considered in the program. Bruce Homer-Smith, the creator of [PlantID.net](#) (a computer-based ID and information program), made a special list available for Ring Mountain that noted the rare and more common plants for docents.

Training of 20 potential docents coming from a wide variety of backgrounds and with different levels of botanical knowledge was developed. Four virtual training sessions were held in the evenings at the end of February and the beginning of March. Amanda Magallanes, the RM Preserve Manager, kicked off docent training with an introduction to the preserve, its plant communities, and the logistics of docent activities, including how to sign up for volunteer shifts. Kristin and Bruce introduced the reference documents and program and how to use them. Paul da Silva gave two lectures on aspects of morphology, evolution, and classification of flowering plants useful in identification. Three Saturday field trips were led by Amanda, Kristin, and Eva.



Ring Mountain Docent Field Trip

We anticipate that the program will continue next year. If you are interested in becoming a Ring Mountain Docent, please contact Kristin Jakob ([vpamarincnps@gmail.com](mailto:vpamarincnps@gmail.com)) to receive notification of the next docent training program.

## AB 1573 Moves to CA Senate Floor

CNPS is a proud sponsor of Assemblymember Laura Friedman's (D-Burbank) AB 1573, a transformative bill that would create California's first requirement for the use of native plants in non-residential landscapes.

Passage of this bill would put California's government and commercial landscapes to work on behalf of biodiversity, giving imperiled pollinators a fighting chance.

### Please continue to:

- Spread the word. AB 1573 is a nuanced bill. Help us communicate the facts and the importance of this opportunity by sharing [CNPS' AB 1573 landing page](#).
- Ask your CA State Senator to support AB 1573: [look up your legislator here](#). Then ask a friend to call their legislator to ask them to support it.



*Muhlenbergia rigens* - deergrass, a landscaping favorite Photo by Ann Elliott



## Plant Classification

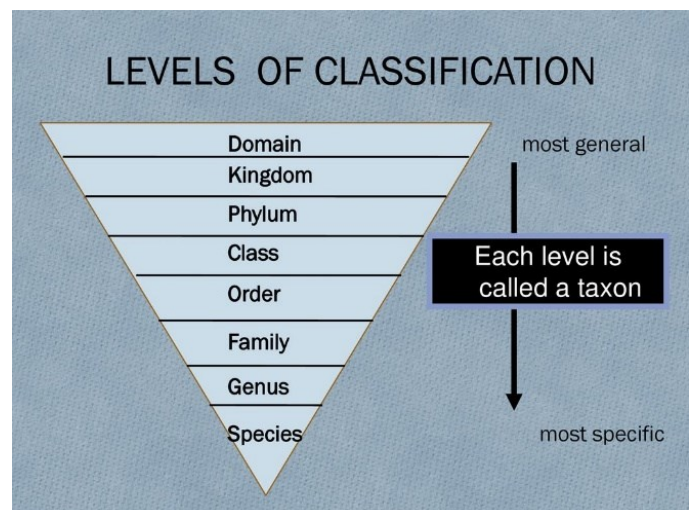
### Born of Necessity

During the Ages of Discovery, Exploration, and Colonialism, plants and animals from all over the world were brought back to Europe. There was an obvious need to develop some kind of order for all of the material that flooded botanical gardens, universities, and museums. Swedish botanist/zoologist Carolus Linnaeus developed a hierarchical classification system in the mid-1700's (*Systema Naturae* 1735) that allowed a better understanding of the relationships and connections among all the plants (and animals).

### Modern Classification

The Linnaean system is still used today with modifications. However, its classifications are based on physical traits or features (morphology) which may not coincide with the evolutionary (phylogenetic) relationships. Those evolutionary relationships, found using molecular analyses of DNA, are now a goal of systematic research.

What is a classification hierarchy in botany (taxonomy)? It is a system that organizes or ranks plants in descending levels of specificity. In the inverted pyramid with eight levels (taxa) (Fig. 2), the top level is the general level of Domain that encompasses everything below it, as does each subsequent level. The next level is the plant Kingdom comprising Divisions, each Division comprising Classes, each Class comprising Orders, each Order comprising Families, each Family comprising Genera (sing. Genus), and each Genus comprising Species, the most specific level (taxon) in this hierarchy. (The second part of a scientific name - a binomial (two names) - is called the "specific epithet," which together with the genus forms the Species name.) In addition, most levels have sub-groups such as sub-class, sub-order, sub-species.



As mentioned above, relatedness is mostly based on physical traits, but much reorganization at all taxonomic levels in the last few decades has been based on DNA sequences, therefore on evolutionary relationships. For those of us who studied plants many decades ago, including to what genus and family a plant belonged, it is necessary to relearn the names of taxa. For example, the Figwort family (Scrophulariaceae) was a large family that has been divided up into several families, including the Broomrape family (Orobanchaceae), the Lopseed family (Phrymaceae), and the Plantain family (Plantaginaceae). Species have also been moved to other genera and sometimes to another family. For example, the Point Reyes bird's-beak, formerly *Cordylanthus maritimus* ssp. *palustris* in the Figwort family, is now *Chloropyron maritimum* ssp. *palustre* in the Broomrape family, *Cordylanthus* being a synonym.

### How to Remember It All

Remembering the hierarchy of taxonomy can be daunting. Mnemonic devices can be just as hard to remember. I have always wanted to know who the presidents on Mount Rushmore are and will try to

remember “We just like Rushmore!” I do find it easy to recall the mnemonic “Kings do chess on fairly good squares.” ( Kingdom, Division, Class, Order, Family, Genus, Species). Although the International Code of Nomenclature also accepts “Phylum” (so kings can “play” chess), “Division” is preferred in botany. (You may have also heard that “Dear King Philip could only find green socks.”) As of the 1990’s, the mnemonic can become a question: “Do kings do chess on fairly good squares?” because Domain was added as the most inclusive level in the taxonomic hierarchy, indicating that the organisms, i.e., plants in our case, are Eukaryotes having cells with a nucleus containing the genetic material, DNA (Fig. 2).

### Practical Use - A Specific Example

Starting at the bottom of the inverted pyramid (tip), taxa progress from specific to broader categories. In general, the basic unit is Species – a kind of plant, for example, the Tiburon mariposa lily (Fig. 3). The next level up is Genus, a collection of closely related species such as other mariposa lilies; a Family is a group of related genera such as the Fawn lily, Fritillary, and Clintonia; an Order is a group of closely related families such as the Lily family and False-hellebore family, etc.

Applying the inverted pyramid levels, the Tiburon mariposa lily (*Calochortus tiburonensis*) would be classified as follows:

- Domain - Eukaryota
- Kingdom - Plantae
- Division - Anthophyta (Angiosperms)
- Class - Monocotyledonae (Monocot)
- Order - Liliales
- Family - Liliaceae
- Genus - *Calochortus*
- Species - *Calochortus tiburonensis*



*Calochortus tiburonensis*  
Tiburon mariposa lily  
photo by Eva Buxton

### Take Home

Imagine how about 320,000 known plant species in the world today would be described and information communicated about them, if a way of classifying them, using a universal language – Latin or Latinized forms of names, was not available!

When we go botanizing looking at “flowers” (Division Anthophyta), we usually only are concerned with the last three levels – family, genus, and species. However, we can sometimes differentiate between plant Classes: monocots and eudicots (formerly called dicots). If we are also looking at mosses and ferns, we are dealing with two additional Divisions (Bryophyta and Pteridophyta).

Don’t feel overwhelmed by classification. Remember that you classify every time you go to the grocery store (Order). You go to the meat department (Family) to buy chicken (Genus) and decide on breasts (specific epithet), so you buy chicken breasts (Species), maybe even marinated ones (sub-species)!

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## Mt. Tam Science Quest Day - Saturday, September 23

Head to Mt. Tam for a multi-event day showcasing the unique sciences of Mt Tam State Park. Experts in Flora, Fauna, Geology, Ecology, and Astronomy will provide in-person experiences to highlight how science can deepen our understanding of our environment. Marin Chapter will have a table at **Rock Spring Trailhead from 3 to 5 pm** to answer questions and provide guidance on how we can maintain our natural habitats.

[Read more. . .](#)



*Eryngium* sp. - coyote thistle  
Photo by Paul G. Johnson

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## Novato Seed Library Inaugural Event

*Marie Steckmest and Stacey Pogorzelski*

On August 5, the Novato Library's Seed Library, a project initiated by Marie Steckmest, a Marin Master Gardener (MMG) and CNPS member, officially opened with a plant swap, seed donations, and seed giveaway in the atrium of the Novato Library. It was a huge success with an endless stream of more than 80 people exchanging items and getting information from the Novato librarian, Marin Master Gardeners, and members of the California Native Plant Society.

Attendees donated, swapped, and obtained annual flower seeds, seeds from native plants, and vegetable and herb seeds (some collected by volunteers and some from commercial seed packets).

Local nurseries donated plants, and native plant seeds came from [Home Ground Habitats](#) and Marin CNPS. Many seeds were packaged to share prior to the swap, but the MMGs and CNPS representatives packaged and labeled even more seeds during the event to fill an enthusiastic demand from attendees.

Organizers discussed plant issues and informed attendees of the Marin Master Gardeners [IPM page](#), [Help Desk](#), and [website](#). Stacey Pogorzelski and Renee Fittinghoff, of Marin Chapter of the California Native Plant Society, answered questions about gardening with natives, handed out the fire-prone [Plant Replacement List](#) and the Bloom!California's 'little blue book' of garden design, as well as complimentary copies of [CNPS' Flora magazine](#).

Seeds will continue to be available in the front lobby of the Novato Library at 1720 Novato Blvd. Swing by and check out the Seed Library!



Chloragalum pomerideridum seeds  
Photo by Stacey Pogorzelski



[bloomcalifornia.org](http://bloomcalifornia.org)  
CNPS, funding by USDA

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## Oak Woodland Ecology Workshop – Saturday, September 9

California's oak woodlands are a unique ecosystem which provide habitat to a diverse group of plants and animals. Oak woodlands provide shelter and food for wildlife and support pollinators. Join Caprice Disbrow, Instructor of Biology and Botany at Santa Rosa Junior College and Napa Valley College and CNPS Milo Baker board member, to learn about oak woodland ecology at Sonoma State's Osborn Preserve. **Saturday, September 9 from 10 am to 12:30 pm**

We will explore a variety of oak species while observing other flora through sight, touch, and smell. Along the way, we'll learn about the ecology of oak trees that occur at SSU's Osborn Preserve and what we can do to support oak woodland diversity. This free event is also part of the Osborn Naturalist program. No experience required. Must be age 18 years or older.

[Read more...](#)



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## Upcoming Marin Chapter Events

- 9/11 7:30 pm Chapter Meeting: [The importance of flowering season duration and planting for pollinator](#). Guest Speaker: **Dr. Rachael Olliff-Yang**
- 9/12 8 am Field Trip: [Mt. Burdell Oaks](#), Leader: **Susan Schlosser**
- 9/20 4 pm Garden Group Seed and Plant Exchange
- 9/23 3 pm [Mt. Tam Science Quest](#)

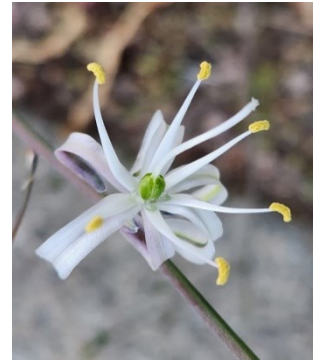


*Zeltnera muehlenbergii* - centaury  
at Mt. Burdell by Susan Schlosser

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## Other Activities in Marin and Nearby

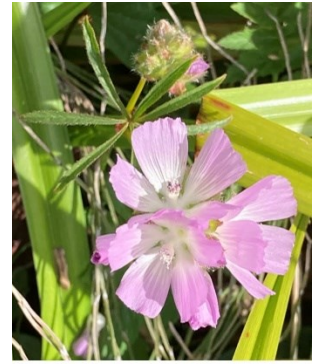
- 9/3 9 am [Hal Brown Park Sheet Mulching](#)
- 9/5 11 am [Local Fungi Presentation](#)
- 9/7 5:30 pm [Seeding Connections](#) - CNPS Native Gardening Chat
- 9/8 10 am [Kent Island Restoration](#)
- 9/9 10 am [Oak Woodland Ecology Workshop](#) - Osborne Reserve
- 9/11 7 pm [Reliable CA Native Plants for a Garden with No Irrigation!](#) Webinar part 2 of 2, Santa Clara Valley Chapter
- 9/12 7 pm [Welcoming Wildlife into the Designed Landscape](#), by Carol Bornstein, Los Angeles - Santa Monica Mt. Chapter
- 9/13 to 9/17 [Wild Wonder Nature Journaling Conference](#)
- 9/14 7:30 pm [Wild Nature and Farming](#) Yerba Buena Chapter
- 9/16 10 am [Kent Island Restoration](#)
- 9/19 7:30 pm [Choosing Native Plants for the Garden, and their Care](#), by Bart O'Brien, Zoom and live: Milo Baker Chapter at Luther Burbank Center, Santa Rosa
- 9/23 9 am **Coast Cleanup Day** at many locations. [Find a location near you.](#)
- 9/23 10 am [Home Ground Habitats Propagation Class](#) - More Plants by Division
- 9/24 9 am [Bothin Marsh Restoration](#)
- 10/1 10 am [Aramburu Island Enhancement](#)
- 10/6 10 am [Kent Island Restoration](#)



*Chloragalum pomerderidum* -  
soap plant blossom  
By Stacey Pogorzelski

- 10/7 9 am [Broom Busters of Old St. Hilary's](#)
- 10/8 10 am [Family Walk Bahia](#): Rush Creek Preserve
- 10/9 7 pm [It's not just another fish! Native Fish and Native Plants: How they interact Webinar](#), North San Joaquin Valley Chapter
- 10/15 9 am [Bothin Marsh Restoration](#)
- 10/28 8 am [Marsh Walk](#), Santa Venetia Marsh
- 10/29 10 am [Deer Island Oaks](#) nature walk

Be sure to periodically check [CNPS.org/events](https://www.cnps.org/events) for interesting talks and field trips sponsored by CNPS Chapters and staff throughout the state.



*Sidalcea malviflora* - checkerbloom at Abbott's Lagoon, Pt. Reyes By Ann Elliott

## Tell us what makes you love our biodiverse county?

Please send your photographs, art, events, and articles. This newsletter informs all of us.

Ann Elliott, Newsletter Editor

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



*Quercus agrifolia* - coast live oak catkins By Stacey Pogorzelski

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