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CALIFORNIA NATIVE PLANT SOCIETY  
*San Diego Chapter Newsletter*

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**CALIFORNIA NATIVE PLANT FESTIVAL**  
Saturday, October 9, 2021 / 9AM to 3PM  
Balboa Park — Casa del Prado Courtyard  
1600 Village Place  
[cnpssd.org](http://cnpssd.org) for details

NATIVE GARDENING, ART, VENDORS, SEEDS & BULBS, BOOKS, EXPERT ADVICE

CALIFORNIA NATIVE PLANT SOCIETY  
San Diego Chapter

The Chapter is pleased to announce its first **California Native Plant Festival** on Saturday, October 9, 9 am to 3 pm. The festival will feature a variety of native plant-themed activities for both kids and adults, including artists, vendors, exhibitors, and live music. A selection of chapter-grown native plants and other species will be available for sale. This will be an opportunity to spotlight both the importance and the joy of California native plants for both enthusiasts and novices alike. Funds raised will benefit the activities of the CNPS-San Diego Chapter. Hope to see you all there!

- Chapter-grown plants
- Additional species in limited supply
- Artists and Vendors
- Newest Discovered Plants of SD County and Baja
- Chapter Committee tables
- Books, posters & CA native plant merch
- Exhibitors
- 100+ species of CA native seeds & bulbs
- Book signings on the hour
- Kids activities at committee tables
- Live music

FOR COMPLETE INFORMATION VISIT: [www.cnpssd.org/events/nativeplantfestival2021](http://www.cnpssd.org/events/nativeplantfestival2021)

# NATIVE GARDENING COMMITTEE

## Native Garden Committee Meeting

Our next Zoom meeting will be on **November 9** at 7 pm. Stay tuned for details on our special guest speaker and registration link in the Native Garden Committee announcements later this month. If you would like to be added to our email list, go to this link: [NCG Announcements](#).

Fall is in the air and so is fire season in Southern California. **Greg Rubin** gave a great talk last fall on fire resistant landscaping if you need pointers on firescaping your home. You can view his presentation at this link: ["Using Native Plants for Fire Resistant Landscapes"](#). Other links to resources for firescaping your home include a booklet created by CNPS called ["Fire Recovery Guide"](#) and ["Protecting Your Home from Wildfire"](#) from the California Chaparral Institute.



Native flower bouquet & photo by **Torrey Neel**.

This month, we are featuring two articles by garden committee members **Tish Berge** and **Lee Gordon**. Tish highlights ornamental native grasses listed on the Bloom! California campaign on page 5. Often overlooked, these evergreen native grasses provide texture and structure in your garden as well as seeds for birds. Lee will be writing a series on uncommon natives in the garden beginning with summer holly (*Comarostaphylos diversifolia*) featured this month on page 4.



Above: Roger's Red Grape (*Vitis 'Roger's Red'*). Photo credit: Wikimedia Commons: John Rusk, Berkeley, CA.

October in the native garden: Fall colors are starting to show and yes, we do have fall blooming natives that will also provide food for pollinators. These natives include California fuchsias (*Epilobium* spp.), gumplants (*Grindelia stricta*), goldenrod (*Solidago californica*), purple nightshade (*Solanum xanti*), scarlet monkeyflower (*Mimulus cardinalis*) and Catalina Island bush poppy (*Dendromecon harfordii*) to name a few.

**Time to Prune, Mulch and Weed:** Thin and lace natives such as manzanitas, ceanothus and sages. Pruning tips from Mike Evans, owner of Tree of Life Nursery include:

- Prune in stages! Remember you can always cut more off,

but you can't put branches back on.

- Always sanitize your tools with 10% bleach solution, alcohol, or Lysol spray, cleaning between each cut when removing diseased branches.

Get a head start planting annual wildflower seeds: Choose the right location according to the wildflower sun/shade requirements. For direct sowing, make sure the area is free of weeds with good draining soil. To protect seeds from predators, cover them with ¼" of soil or leaves. Another clever method is to lay down a thin layer of small pebbles (½ -1") followed with sowing. The seeds will fall between the pebbles and make it harder for predators to reach the seed.

Wildflower annuals can also be sown in pots but will need more frequent watering since potted plants dry out more quickly.



Early Onion (*Allium praecox*). Photo: Calscape

Annual wildflower favorites include elegant clarkias (*Clarkia unguiculata*), globe gillias (*Gilia capitata*), baby blue eyes (*Nemophila menziesii*), Chinese houses (*Collinsia heterophylla*), and tidy tips (*Layia platyglossa*). Potted 'Early Onion' (*Allium praecox*) bulbs also look lovely mixed in with wildflowers. Did you know you can buy seeds and bulbs from our chapter website at this link or at the upcoming Fall Native Plant Festival? [CNPS-SD Seeds and Bulbs](#).

## What? FREE California Native Trees from SDG&E???

Yes, this is correct! SDG&E and the Fire Safe Council of San Diego County are partnering with Native West Nursery to offer free native trees and shrubs to the community to promote their Sustainability Plan. Fruit trees and some non-native trees are included on the list as well. To apply go to: [SDG&E Free Trees](#).

## NGC Volunteer Opportunities:

**Bird Park Workgroup:** Get hands-on experience with all stages of installing a public native garden. Sign up [here](#) if you are interested in volunteering.

**Hugelkultur Workshop Phase II:** Planting natives on the hugels created in June at the home of **Debbie and Lee Gordon** will take place late October. Watch for the sign-up sheet later this month in the NGC announcements.

**CNPS Fall Native Plant Festival:** Join the fun and volunteer in 2 hour shifts between 8 am and 4 pm. We will have on display "Bloom! California" native plants, a bumble bee treasure hunt children's activity, Calscape demonstrations, educational handouts and more! If you are interested in volunteering, contact **Christine Hoey** at 770-714-5462.

The Native Garden Committee is open to anyone interested in learning more about gardening with native plants. We are a fun group of friendly folks who are all passionate about natives, especially growing them in gardens! If you are interested in joining us, drop us a line at [nativegardening@cnpssd.org](mailto:nativegardening@cnpssd.org).

*Natively yours,  
Christine, Nancy and Tish*

(Native Gardening continued on page 4.)

## Do You Propagate California Native Plants?

Would you be interested in donating some of your propagated native plants to the chapter's first **California Native Plant Festival** for fundraising efforts? Well, we thank you in advance!

Contact: [nativeplantfestival@cnpssd.org](mailto:nativeplantfestival@cnpssd.org) to provide your details - name, phone, email, species and quantities.



## Seed Sorting Party Saturday, October 2, 2021 9:00 am - 12:00 pm in La Mesa

**Judie Lincer** has offered to host a seed sorting party for up to 14 vaccinated members in her backyard in La Mesa. Bring any seeds you have collected, your mask and a snack to share. RSVP to [seedsandbulbs@cnpssd.org](mailto:seedsandbulbs@cnpssd.org) for the address and to secure your spot! Dress for the weather. There is covering for the rain, but it could be chilly. Since space is limited, please let us know if you need to cancel so we can give your spot to someone else.

## CNPS-SD BOARD NEWS

### October Board Meeting

**Wednesday, October 6, 6:30 – 9:00ish p.m.** The meeting will be via Zoom. To add an issue to the agenda, or to get the link to the meeting, please email [president@cnpssd.org](mailto:president@cnpssd.org).

### September Board Meeting Summary

The board approved the following:

- Authorization for CNPSSD committees to fund developing leaders to attend CNPS workshops that are pertinent to their committees.

Other items discussed by the board included: revisions to the handbook, progress on planning the Fall Native Plant Festival, plant sale options, and various garden tour options.

Meeting adjourned at 8:56 pm.

~ **Bobbie Stephenson**, Chapter Secretary

## CHAPTER PRESENTATIONS

### San Diego's Insects and Their Dependence on Native Plants

By **Daniel Marschalek, PhD**

**Tuesday, October 5, 2021**

**7:00 pm to 8:15 pm**

Many insect groups can be used as indicators of habitat quality due to their intimate relationship with native vegetation as a food source. As plants developed defensive compounds, herbivorous insects had to develop abilities to circumvent these compounds. This coevolutionary relationship has continued over many years and has resulted in most insect species feeding on only one or a few plant species. Native plants in San Diego County have been demonstrated to be important for individual insect species as well as the broader insect community (and their associated ecosystem functions).



Hermes copper



Dun skipper



Laguna Mtn skipper

Several threatened and endangered butterflies are specific to one or a few plant species as a larval food source in the San Diego area. Recovery efforts are underway and often focus on the native plants upon which they feed. Recent research has also demonstrated that native shrublands in coastal San Diego County are important for insect communities associated with decomposition, with the loss of shrublands resulting in a decrease in decomposition rates. This talk will focus on the use of vegetation data within entomological research, highlighting several case studies.

Links:

<https://marschalekinsectconservation.weebly.com/>

<https://www.facebook.com/Marschalek-Lab-for-Insect-Conservation-101166757036298/>

<https://www.ucmo.edu/college-of-health-science-and-technology/school-of-natural-sciences/biology/faculty/daniel-marschalek/>



Dr. Daniel Marschalek's research spans the fields of entomology, ecology, and conservation. Projects typically combine quantitative entomological and ecological research with the goal of informing data-driven decisions for the management and conservation of native species and communities. Current research projects include studying endangered butterflies at the population and community level, and ecosystem functioning at the broader community level. This represents his philosophy on conservation: 1) endangered species are in need of immediate attention to prevent extinction, and 2) ecosystem processes and diverse groups of species must be

maintained to prevent the further decline of important species and loss of the services they provide. Since 2002, Dr. Marschalek has led a research program for the conservation of the southern California butterfly community, focusing on several endangered species. A broader community level study is assessing how habitat and landscape characteristics influence arthropod communities, and how differences in species assemblages affect ecosystem functioning (pollination and decomposition rates).

## TWO WAYS TO WATCH

**1) Zoom:** To watch the presentation on your computer or phone via Zoom you must register in advance at this link. Registration on Zoom has a capacity so register now for the best 'seats'. You do not need a Zoom account to register or watch the presentation.

**Register for the presentation:**

[https://us02web.zoom.us/webinar/register/WN\\_hh70zNR1S8iHcEJjn8G7ZQ](https://us02web.zoom.us/webinar/register/WN_hh70zNR1S8iHcEJjn8G7ZQ)

**2) Facebook:** If you want to watch the presentation without registration it will be live streamed to CNPS-San Diego Chapter's Facebook page beginning at 7:00pm. There is no limit to participants viewing the presentation on Facebook. Previous presentations can also be viewed on the Facebook page.

**CNPS-San Diego Chapter Facebook Page:**

<https://www.facebook.com/cnpssd>

## The Beauty and Complexity of Evolution: A Focus on Manzanitas

Tuesday, November 16

7:00 pm - 8:15 pm

Speaker: **Tom Parker (V. Thomas Parker)** Professor of Biology at San Francisco State University since 1980, now Emeritus.

### NATIVE GARDENING

## Overlooked Native Plants for the Garden

*Comarostaphylos diversifolia*  
(Summer Holly)

By Lee Gordon

This begins a short series on some of our local native plants that are superb for our native gardens, but which are largely overlooked.

Summer holly is an uncommon San Diego shrub that is a member of the Ericaceae (Heath family) along with manzanitas and blueberries. As are many of our native heaths, it is also an uncommonly beautiful plant. It is evergreen, with displays of white flowers in the spring and bright red berries in the summer and fall. They are an unusual source of garden color this time of year.

Summer holly grows near the bottom of the canyons threading

their way through the Del Mar Mesa Preserve, as well as other locations. They get lots of water there and they grow huge. The Point Loma Native Garden has four beautiful 30-year-old specimens. They had been neglected most of their lives, but regular watering starting about three years ago caused them to start growing again. This year they were watered with about 1" of water every month, and they look better than ever. They are about 10' tall, 6' wide, and covered with red berries and glossy leaves.

Summer holly is available locally in 1-, 5-, and 15-gallon pots. I just planted one from a 5-gallon pot at a steep site in an organic clay soil. I will irrigate monthly (~1"), and as it grows, I will trim lower branches to give it just a bit of a tree shape and to expose its trunk. Trimming also encourages growth at the top. I will keep surrounding plants from crowding it because I want the whole plant to be visible in its natural upright shape. I expect it to grow to 10' in 5 years, and to keep on growing beyond that. Its slow growth reduces maintenance and makes it easier for me to form it into the shape I want.

While the conventional wisdom is that native plants do not need fertilizer, I plan to fertilize this plant with GroPower organic fertilizer when it is watered, and MiracleGro in between watering. It will be interesting to see how large a well-watered, well-fertilized summer holly can get.



Left: *Comarostaphylos diversifolia* in the Point Loma Native Garden.

Above: Closeup showing red berries.

Photos courtesy of Al Field.

Right: This freshly planted summer holly came in a 5-gallon pot. I wanted a large plant to make it more visible from the start. The scrub oak behind it is probably too close, and in time, I will remove it. There is no shortage of oaks in this garden!



Next month: *Monardella viminea*, San Diego willow mint.

# Plant Highlights from Bloom! California

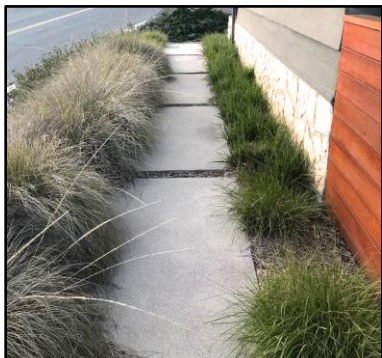
By Tish Berge, CNPS Garden Ambassador

As residents throughout the county consider removing their turf with the help of rebates offered by our Southern California water utilities (more information at <https://socalwatersmart.com/en/residential/rebates/available-rebates/turf-replacement-program/>), it's a good time to remember that there are native grasses that have many benefits, from low water use to high habitat value.

Ornamental grasses are one of 11 plant categories being highlighted as part of the California Native Plant Society's statewide campaign to boost the sale of California native specialty crop plants by 20% in volume over the next 3 years. The campaign—**Bloom! California: Native Plants for a Bright Tomorrow**—is funded by a California Specialty Crop Block Grant and is the first project of its kind in the state. For more information, see [Native Plants for a Bright Tomorrow - BLOOM! CALIFORNIA](https://bloomcalifornia.org/) for the announcement that came out during California Native Plant Week and <https://bloomcalifornia.org/> for the website with more information on how to participate. Bloom! California is in Phase 1 and is recruiting partners who own, operate, manage, or work for a California-based nursery or retailer. If you know someone who fits that category, please share this information with them!

Here are all 11 selected plant groups: Ornamental Grasses, Mints, Iris, Currants, Clarkia, Manzanita, Yarrow, Sage, Phacelia, Toyon, and Oaks. Each of these types of plants contributes differently to the garden from both an aesthetic perspective and a wildlife and habitat perspective. When I punch in my ZIP code on CalScape (<https://calscape.org/>), I get no fewer than 85 different grass species, of which I have four in my yard. Several ornamental grasses are listed on Bloom! California, and this article will highlight some that perform well and are well-suited to San Diego.

**DEERGRASS.** Let's start with deergrass (*Muhlenbergia rigens*), a large perennial bunch grass. It likes full sun and grows quickly to



Above: Deergrass on the left side of the walkway and recently pruned wild rye on right. (IMG 6044)

4–5 ft tall and 4 ft wide. In spring it will create cream-colored flower spikes that can reach up to 5' and attract seed-eating birds in summer. According to CalScape, "Deergrass is one of the most beautiful and probably the easiest to grow of all the native California bunchgrasses, typically reaching mature size in one or two years."

Noting its large size, it will do better in gardens with ample space. While it likes sandy or gravelly soil, it is tolerant of any soil as long as it is well drained. In my yard, it has survived in my clay soil and dry streambed. From a gardening perspective, the deergrass in my yard is used in two ways: (1) as a formal low hedge, and (2) in the dry streambed. Against the house, the soft form of the grass softens the space between the concrete driveway and the stone siding. I regularly prune this grass to create uniformity with regard to size and form. I'll discuss pruning methods later. In the dry streambed, the grass not only softens the rock bed, but also filters the water that flows in the bed when it rains. It's common after a rain to see piles of leaves caught by the grass. The grass does not reseed easily, so it won't take over your garden, though some gardeners have found it popping up in various places in their garden over the years. The bunches can get rather large and benefit from occasional division, at which point you can relocate the extra plants to another spot in the yard or give them to neighbors. The best time to divide is winter, and it will require a sharp spade to cut through the dense clump and fibrous roots. While the seeds support birds, the plants themselves provide shelter for sleeping bumblebees and burrowing squirrels and rabbits (who may dine on the young plants), but they bounce back quickly from the free pruning. (Source: [http://sonomamg.ucanr.edu/Plant\\_of\\_the\\_Month/Muhlenbergia\\_Rigens/](http://sonomamg.ucanr.edu/Plant_of_the_Month/Muhlenbergia_Rigens/)). CalScape suggests using larger plants as companion plants, including several listed on Bloom! California: Toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), larger ceanothus species, manzanita species, or scrub oaks.

**WILD RYE.** Wild rye (*Elymus condensatus*), is a medium grass with silver blue-green foliage. The individual blades of grass are



Giant wild rye (*Elymus condensatus*).  
Photo credit: CalScape

wider than those of deergrass. It likes full sun, is evergreen and clumping, and grows to 3–6 feet tall by 2–8 feet wide. The width comes from the ability of the plant to spread by rhizomes, but with its moderate growth rate, it is easy to contain if that is your preference. The flower spikes are brown and can reach

several feet above the height of the grass. It supports butterflies and moths, and the seeds can be eaten by mammals and birds. CalScape suggests using these companion plants: Bush sunflower (*Encelia californica*), California sagebrush (*Artemisia californica*), coyotebrush (*Baccharis* spp.), oaks, sages (*Salvia* spp.), and buckwheats (*Eriogonum* spp.). In my garden, I have found this plant to be smaller in scale and more sparse (not as dense of a clump) compared to my deergrass. The seed stalks are striking and beautiful when they happen. From a garden

perspective, its color is a great asset and adds variety to the landscape.

**SEDGE.** While not on the Bloom! California list, one of my favorite grasses is sedge (*Carex* spp.). In my rain garden (“rain garden” is a fancy way of saying “the part of my yard that gets wet-weather runoff from the house”), I have clustered field sedge (*Carex praegracilis*). This grass brightens after the rains, provides food for the rabbits, and offers a soft place to lie for the dogs. It grows just a couple feet tall by a few feet wide. In the dry season, it will yellow and fall over. Sometimes I prune it, sometimes I don’t, and it spreads easily by rhizomes. Those seeking a lawn alternative that still provides a turf look can use this grass, as it has a soft texture, can be mowed, and requires significantly less water (source: <https://calscape.org/>).



Pictured above: Carex lining the concrete patio where the water runs off after a rain. (IMG 6034)

On my hillside, I let the grasses grow without pruning, and that is where the squirrels and rabbits have burrowed. Near the house, I prune them. Pruning grasses typically involves cutting them to the ground in what might be referred to as a “hard” prune. When I prune my grasses, I try to get as close to the ground as possible, typically leaving just a few inches. The best time of year to prune is fall.

Other grasses from *Bloom! California* that grow well in San Diego include:

- California brome grass (*Bromus carinatus*)
- Blue wild rye (*Elymus glaucus*)
- Purple three awn (*Aristida purpurea*)
- Meadow barley (*Hordeum brachyantherum*)
- One sided blue grass (*Poa secunda*)
- Junegrass (*Koeleria macrantha*)
- Melicgrass (*Melica californica* and *Melica imperfecta*)
- Alkali sacaton (*Sporobolus airoides*)
- Needlegrass (*Stipa lepida* and *Stipa pulchra*)

For more inspiration from CNPS Garden Ambassadors, visit <https://www.cnps.org/tag/garden-ambassadors> .

**Tish Berge**, Native Garden Committee Co-chair has been a CNPS member since the early 2000s when she got her very first native plant, a Catalina Cherry. She likes natives because they are drought tolerant and attract wildlife. She recommends workshops, tours, and patience to new gardeners.

## CONSERVATION

### Conservation Committee Meeting

Contact [conservation@cnpsd.org](mailto:conservation@cnpsd.org) for meeting information.

### Growth Rates and the Need for Big Trees

Time to haul out some math, to make a pitch for saving big trees, although at first this advice seems charmingly quaint, maybe even crazy. The problems du jour are Gold Spotted Oak Borer (*Agrillus auroguttatus*) and climate change, but this also applies to shothole borers.

There are two arguments for getting rid of big old oaks. One is that they get killed by boring beetles, and so they’re casualties waiting to happen, and not worth saving when they get infested. It’s better to spend scarce money planting seedlings.

The second argument is that seedlings take up carbon faster than do old trees. Therefore, if you want more carbon removal, plant lots of young trees. Old trees are, at best, stores of old carbon. We don’t want them to burn but...maybe cut them down to make houses? Obviously this last doesn’t apply to our local oaks, but it certainly applies to conifers.

I’ll take these in reverse order. Sorry, this is going to involve math, calculating volumes. I know, it’s horrible, take the time to prepare yourself...

...Ready? Sorry for the sarcasm, but I’m trying to defuse any unnecessary cases of math anxiety.

To keep this simple, I’m going to simplify a tree into a cylinder of wood, the trunk. Yes, I know oaks grow into corkscrews, and that they’ve got a lot of biomass in leaves, and even more in roots. Here’s the little secret: in the example I’m going to give, it doesn’t matter, and I’ll get to why at the end.

Anyway, the formula for the volume of a cylinder is  $\pi r^2 h$ .  $\pi r^2$  is the formula for the area of a circle of radius  $r$ , and  $h$  is the height of the cylinder (it’s a tree so it stands upright).

Since this cylinder represents a tree, it takes carbon out of the air by growing, and it grows by increasing  $r$  (radius) and  $h$  (height). Just to keep it simple, I’m going to say that the increase in  $h$  is  $100r$ . If the radius goes from 1 to 2, the height goes from 100 to 200. Doesn’t really matter if we’re talking about 1 to 2 centimeters, inches, or feet, so I’ll talk about *units*.

So, for a basic cylinder of radius 1 unit, its volume  $\pi r^2 h$  is  $\pi * 1^2 * 100$ , or 314 cubic units.

If the tree grows to have a radius of 2 units, its volume  $\pi r^2 h$  grows to  $\pi * 2^2 * 100$ , or 2,513 cubic units.

If the tree grows to have a radius of 100, its volume  $\pi r^2 h$  grows to  $\pi * 100^2 * 100$ , or 314,159,265 cubic units.

If the tree grows to have a radius of 101 units, its volume  $\pi r^2 h$  grows to  $\pi * 101^2 * 100$ , or 323,678,605 cubic units.

Got it? Now here are the two tricky parts. I'm going to introduce two terms: absolute growth rate and relative growth rate.

Growth rates are change over time. **Absolute growth rate** is simple change over time. So going from a radius of 1 to a radius of 2, the absolute growth rate of our cylinder tree is 2,513-314, or 2,199 cubic units.

Similarly, the absolute growth rate going from radius 100 to 101 is 323,678,605-314,159,265=9,519,339 cubic units.

Makes sense, kind of boring even? Excellent! Let's go to **relative growth rate**, which is how much the tree grew relative to its size when it started. This is something investors care about with money.

So, for our tree growing from 1 unit to 2 units, its relative growth rate is 2,199/314, for a relative growth rate of 7, or 700%.

Conversely, for our tree growing from 100 to 101, its relative growth rate is 9,519,339/314,159,265, or 0.03, 3%.

Now, which do you want to have sucking carbon, a small tree of radius 1, or a big tree of radius 100?

If you answered the small tree, you're wrong, believe it or not, because it's not the relative growth rate that matters. That 700% return on a per tree basis looks incredibly sexy. Thing is, when you're trying to maximize the absolute amount of carbon trapped in wood, you have to look at absolute growth rate, not the relative increase in size. The amount of carbon captured by the tree growing to 101 units in radius is over, 4,328 times bigger than that of the sapling growing from 1 to 2 units in radius.

And if you add in all the branches, twigs, leaves, and roots, the difference gets even more stark. That's why it's not worth dealing with them to teach this simple lesson. This is about the difference between absolute and relative growth rates, nothing more.

So why do so many planners and politicians think that seedlings are the answer? Well, they're partially right, we need more trees. The problem is that the foresters advising them are trained to maximize wood production per unit of time, and that's a relative growth rate question. So, foresters take what they learned farming trees and figured it made sense for capturing carbon: cut the big trees, plant the small trees with their high relative growth rates, and watch them double in size.

Do this wrong and the absolute amount of carbon captured actually goes down.

It's a matter of geometry, not biology. Absolute growth rates matter, and even a minute amount of growth spread over a big tree adds up to far more carbon captured than a sapling can pull in. This is the carbon argument for why it's worth saving big trees, as well as planting small ones.

The other argument is that big trees provide ecosystem services that young trees do not. They produce pollen, nectar, fruits, and/or nuts, because they are sexually mature trees. They also provide food for insects that in turn feed other animals, support more fungi on their roots, mosses on their bark, homes for animals, shade for shade-loving plants and ambient cooling, and so forth. Young trees can't do this by themselves.

But Gold-Spotted Oak Borers do, in fact, kill oaks. Unless you consistently spray them with a specific insecticide, in which case they can survive. Is it worth it? I'd argue yes. San Diego County is short on trees in general, that's why we're trying to plant more of them. But where there are already big trees, we really should make an effort to save them. They pull in more carbon they provide more services, and it will take decades for their replacements to grow as large, assuming climate change allows this to happen.

This issue came up because a local nonprofit has, for the last two years, been paying the City of San Diego's costs to treat the infested coast live oaks (*Quercus agrifolia*) in Peñasquitos Canyon. It's not cheap, and they can't keep doing it indefinitely. They're doing it, not just to save some old matriarchal oaks, but to keep the beetles from spreading faster throughout the Canyon. They argue that it's worth saving the old trees, and this is why.

Additionally, the City is also updating their Climate Action Plan, and they're counting on having more trees to sequester more carbon. And yes, I'm all for planting trees where there are none.

But I also strongly suggest that the City should start paying to spray for GSOB in Peñasquitos Canyon and elsewhere, to try to control the spread of the beetles. And saving one big oak is cheaper than planting hundreds to thousands of seedlings to take up the carbon the old tree now captures. And that, plus all the life the old trees and their woodlands support, is what matters right now.

~ Frank Landis, Conservation Chair & Rare Plant Survey Chair



## IN THE FIELD

### The Desert a Month after Monsoonal Rains By Jürgen Schrenk

After yet another week of waiting for the temps to go down watching our Monarch production and limiting our walks to local parks, I was worried that I might completely miss the monsoonal “spring” in the desert. So, I went on a quick drive



along S-2 to check (without Ruth, who for unknown reasons refuses to join me at triple digit temperatures!). My first stop at Cool Canyon (above) had no flowers but the ocotillos were green.

Things became more colorful in Blair Valley with Cove’s cassia (*Senna covesii*) in full bloom (right).

There were also a few pretty weeds, including silverleaf nightshade (*Solanum elaeagnifolium*), below.



but most flowers were natives, such as Parish goldeneye (*Bahiopsis parishii*) shown below, and...



from inconspicuous plants like California caltrop (*Kallstroemia californica*) below,



to ‘impossible to miss’ manybristle chinchweed (*Pectis papposa*) below.





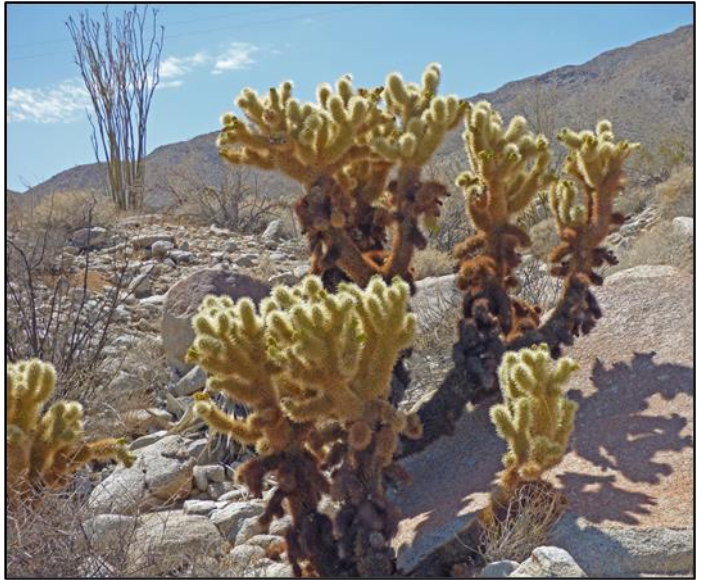
The biggest surprise, however, was Oriflamme Canyon Road, with masses of flowering desert willows (*Chilopsis linearis*).



The Mason Valley Cactus Gardens looked healthy with pink teddy-bear cholla (*Cylindropuntia fosbergii*), as did the surrounding desert...



and my favorite cactus species in Canyon 41, jumping cholla (*Cylindropuntia bigelovii*), below.



## CNPS BRYOPHYTE CHAPTER

The Bryophyte Chapter aims to increase understanding and appreciation of California's mosses, liverworts and hornworts, and to protect them and the habitats in which they grow.

### Upcoming Events

- **Virtual Workshop, "Introduction to Bryophytes," Saturday, March 12, 2022.**
- **SO BE FREE 26** Coming up **March 25–28, 2022**, in the Mojave Desert.

Also, a special bryophyte issue of *Madroño, A West American Journal of Botany*, published by the California Botanical Society (CBS), will appear later this year as Volume 68, Issue 3, 2021.

For more info, visit: [Home - CNPS Bryophyte Chapter](https://bryophyte.cnps.org/) or <https://bryophyte.cnps.org/>

## NATIVE PLANT ARTICLES & BOOKS (AND RELATED READINGS)

### Plants evolved ability to actively control water-loss earlier than previously thought

New research has shed light on when plants first evolved the ability to respond to changing humidity in the air around them, and was probably a feature of a common ancestor of both flowering plants and ferns.

[www.sciencedaily.com/releases/2021/08/210826111639.htm](https://www.sciencedaily.com/releases/2021/08/210826111639.htm)

## Plants Evolved Complexity in Two Bursts

A Stanford-led study reveals that rather than evolving gradually over hundreds of millions of years, land plants underwent major diversification in two dramatic bursts, 250 million years apart. The first occurred early in plant history, giving rise to the development of seeds, and the second took place during the diversification of flowering plants.

<https://www.sciencedaily.com/releases/2021/09/210916142851.htm>

## How the Suburbs Could Help Save Biodiversity

...Too many of the exotic plants sold in nurseries are essentially inedible to most native animals. A movement has begun to turn the tide and bring natives back, but this push to restore is coming up against droves of drought-tolerant exotic plants that are still being touted for arid climates. Unfortunately, this kaleidoscope of alien plants brought in from across the planet is being passed off as ecofriendly. Mostly they're not. Yes, you're saving water over planting thirsty ornamentals or a lawn, but drought-tolerant exotic plants can become invasive disasters when they escape our yards. Helping the environment can be about more than saving water. Even in drier areas, like the American West, the selection of attractive native plants to choose from is vast. If dry is your style, there are native succulents, and a vast array of wildflowers, flowering bushes and trees that can meet any aesthetic allowing you to save water and nature...

<https://www.scientificamerican.com/article/how-the-suburbs-could-help-save-biodiversity/>

### RELATED ACTIVITIES

#### **Southern California Botanists** 47th Annual Symposium

#### **Conservation and Floristics of California's Rare and Relictual Ecosystems** **Saturday, October 16, 2021**

Virtual program and registration information is at [www.socalbot.org](http://www.socalbot.org).

Speakers:

- **Christopher DiVittorio**, PhD -- Conservation of species and evolutionary processes on coastal sand dunes
- **Regan Dunn**, PhD -- Harbinger of the future: Drought, fire, and extinction in the latest Pleistocene
- **Lluvia Flores-Renteria**, PhD -- Elements to consider in the conservation of pinyon pines

- **Karolina Heyduk**, PhD -- Local adaptation in a desert perennial: early data from Joshua tree common gardens
- **Anne Kelly**, PhD -- The present and future of Mojave ecosystems
- **Travis Longcore**, PhD -- Rarities and Relicts: Historical Ecology as Guide to the Lost and Remnant Vegetation Types of Southern California
- **Michael Moore**, PhD -- Staying Alive: biomineralization and climate change on a gypsum archipelago
- **Jesse Potter** -- Bolsa Chica: History, Restoration, and Rarities
- **James Thorne**, PhD -- Considering Analog Climates and Vegetation- and Micro-Refugia for Climate-Adaptive Plant Conservation
- **Loraine Washburn**, PhD -- Horrid Holdouts from the Eocene: Deep Time Considerations for Conserving Nevin's Barberry

### Registration information

- [Early Registration \\$35](#)
- Same Day Registration \$45
- Student rate \$5. Students, please email membership AT [socalbot.org](mailto:socalbot.org) before registering with proof of student status for the discount code which you can apply at check out. Student admission fee is \$5.00 (\$30 discount).

### **Cal-IPC** **30-Year Anniversary Symposium** **(online)** **October 26-29, 2021**

<https://www.cal-ipc.org/resources/symposium/>

Connect with colleagues from across the state – and beyond – to get the latest updates on effective tools, relevant research, and strategic management approaches. Registration button at the bottom of this page.

### **SYMPOSIUM FEATURES:**

Join session talks, discussion groups, and posters covering a wide range of topics related to invasive plant biology and management. Chat with sponsors/exhibitors, engage during discussion groups, talk to poster presenters, and meet with friends and colleagues.

### **SPECIAL SESSIONS:**

- Invasive plant management to protect biodiversity in California and beyond
- Strengthening conservation by broadening community access

- Lesson learned from 30 years of invasive plant management
- New mapping tools to increase project effectiveness

### ALSO FEATURED:

- **Statewide WMA Meeting** – Representatives from California’s Weed Management Areas (WMAs) shared information about securing grants, designing projects, researching plants, selecting tools, reporting finds, acquiring permits, and engaging communities.
- **Herbicide Laws & Regulations** – Session designed to provide 2 hours DPR credit
- **Early Career Panel** – Students and early-career professionals, learn more about careers in weed management with representatives from non-profits, academia, consulting firms, and government agencies.
- **Poster Session** – Join in discussion with poster presenters.
- **Exhibitor Gallery** – Connect with sponsors and exhibitors.

stamping comes for free. <https://www.iNaturalist.org>

~ Craig Denson, CNPSSD Discussion Group Moderator

## California Botanical Society 2021 Botany Speaker Series

The CalBotSoc botany speaker series aims to showcase and promote the work of early career botanists. If you are an early career botanist interested in giving a talk of general interest to society members, please email [membership@calbotsoc.org](mailto:membership@calbotsoc.org). The California Botanical Society was founded by Willis Linn Jepson in 1913, and since then it has advanced the knowledge of botanical sciences in the Western United States

The CNPS-SD Newsletter is generally published 12 times a year. The newsletter is not peer reviewed and any opinions expressed are those of the author identified at the end of each notice or article. The newsletter editor may edit the submittal to improve accuracy, improve readability, shorten articles to fit the space, and reduce the potential for legal challenges against CNPS. If an article, as edited, is not satisfactory to the author, the author can appeal to the board. The author has the final say on whether the article, as edited, is printed in the newsletter. Submissions are due by the 10<sup>th</sup> of the month preceding the newsletter; that is October 10 for the November newsletter, etc. Please submit items to [newsletter@cnpsd.org](mailto:newsletter@cnpsd.org)

## San Diego Natural History Museum Canyoneer Hikes

Hikes are scheduled nearly every weekend (and sometimes midweek) **through June 26, 2022**. In total, the Canyoneers are offering 57 hikes that cover diverse terrain, ranging from the coast to Anza-Borrego Desert State Park, and from the Tijuana Estuary to Palomar Mountain. The outings range from short loops on paved trails to challenging hikes with substantial elevation changes.

The Canyoneers’ popular online recommendation, which were launched last year, will continue to be offered for those who prefer to hike on their own.

See a list of hikes at:

<https://www.sdnhm.org/education/canyoneer-hikes/>



## Ecology Fun Stuff to Do?

People could checkout Nature's Notebook, which is a backyard monitoring program started by the USA National Phenology Network. Here's a link:

[https://www.usanpn.org/natures\\_notebook](https://www.usanpn.org/natures_notebook)

And, of course, iNaturalist would be both a broader and less structured way you could put together something like this. You can enter your own tags and track phenology, and date

# HAPPY FALL!!!

## CNPS-SD Activities Calendar October 2021

- 10/2:** Seed Sorting Party, p.6
- 10/5:** Chapter Zoom Presentation, p.1
- 10/6:** Board Meeting via Zoom, p.2
- 10/9:** CNPSSD Native Plant Festival, p.1

## MEMBERSHIP APPLICATION

<https://www.cnps.org/membership>

\_\_\_ Student/Limited Income \$25; \_\_\_ Individual \$50; \_\_\_ Plant Lover \$120; \_\_\_ Supporter \$500; \_\_\_ Patron \$1,000;  
\_\_\_ Benefactor \$2,500; \_\_\_ Perennial Monthly Sustainer Memberships starting at \$5/mo. provide much needed predictable  
income for our programs. Your indicated gift will be automatically repeated each month. Pls see  
<https://www.cnps.org/membership> to sign up for this membership level.

Name(s): \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ e-mail: \_\_\_\_\_

Mail check payable to "CNPS" and send to: CNPS, 2707 K Street, Ste 1, Sacramento, CA 95816-5113.

## CALIFORNIA NATIVE PLANT SOCIETY

San Diego Chapter  
C/o San Diego Natural History Museum  
P. O. Box 121390  
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October 2021 Newsletter

Dedicated to the preservation of the California native flora  
*CALIFORNIA NATIVE PLANT SOCIETY – SAN DIEGO*

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### **CHAPTER COUNCIL DELEGATE**

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### **Email DISCUSSION GROUP**

Craig Denson, Moderator  
To join, email: CNPSSanDiegoDiscuss+subscribe@groups.io

### **RARE PLANT BOTANIST**

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