March 2021

CALIFORNIA NATIVE PLANT SOCIETY

San Diego Chapter Newsletter

GARDENING WITH NATIVES

Garden Committee (GC) Meeting

Wild Yards Project: As Above, So Below - What Our Gardens Say About Who We Are, And Where We Are Headed

by David Newsom

Tuesday March 9, 6:30-8:00 pm

Via Zoom (You do not need a Zoom account or app to attend)

Join us for this inspirational talk by **David Newsom**, founder of *Wild Yards Project*. David will focus on what we create when we develop and enhance native habitat, and how we can amplify our work to rebuild the planet. This embraces concepts beyond our garden walls. He sees our yards as testing grounds for a far larger project: to see our gardens as the beginning, baby-step models for a global movement, and to help make these ideas applicable AND accessible to all. This meeting is limited to 100 participants but will also be recorded for posting on the CNPS-SD YouTube Channel. Once you register, we will send a Zoom link 3 days before the presentation. Zoom Meeting Sign Up

If you receive the hard copy newsletter, here is the address for registering for the program: https://www.cnpssd.org/events/2021/3/9/12/garden-committee-meeting

March in the Native Garden

March is ***Women's History Month,*** and we would like to recognize two pioneer California women botanists and their scientific contributions to the extensive knowledge of California flora. Mary "Kate" Brandegee (October 28, 1844 – April 3, 1920) and Alice Eastwood (January 19, 1859 – October 30, 1953) worked together as curators for the California Academy of Sciences botany department for many years. Kate and Alice traveled the state collecting and identifying native plant specimens throughout California for the Academy's herbarium.

(Above) Layne's monkeyflower (*Diplacus layneae*). Photo by philipbouchard is licensed under CC BY-NC-ND 2.0.

Two new recognized native plant species were named after Kate Brandegee: Layne milkvetch (*Astragalus layneae*) and Layne's monkey flower (*Diplacus layneae*). Kate and her husband, Townsend Brandegee (also a botanist), have San Diego connections. After settling in Banker's Hill, they created the city's first brick botanical garden on their property. As a couple, they both continued to collect plant specimens in California, Arizona and Mexico.

Alice Eastwood's career at the Academy included the distinction of being the fourth highest female author of land plant species names with seventeen species named for her, including the genera *Eastwoodia* and *Aliciella*. Alice was the first to describe the Franciscan manzanita (*Arctostaphylos franciscana*) as a unique species and named it after San Francisco; the species is now on the CNPS list 1B.1. As editor and publisher of several botanical journals, Alice also helped found the American Fuchsia Society.

(Right) Broad-leaved Gilia (*Aliciella latifolia*) was named after Alice Eastwood. Photo credit: Calscape.

Speaking of manzanitas, this month's featured article ***"Magnificent Manzanitas"*** by Teresa Everett describes how manzanitas can add structure and beauty to your landscape. From low growing ground covers to 25-foot-tall trees, there is something for everyone. Many of the cultivars mentioned in the article can be found on Moosa Creek's website at: http://www.moosacreeknursery.com/.

March Zoom Native Gardening Workshops/Talks

Theodore Payne Calendar of Events: A variety of March native plant classes for a small fee. Theodore Payne Events

March 20 - 28: Master Gardener Spring Seminar featuring Garden Committee members **Greg Rubin** (California Native) and **David Clarke** (Landscape Design). For more information, go to: Master Gardener Spring Seminar

Mark your Calendars: The Native Garden Committee meets every other month via Zoom. After our Tuesday, March 9 meeting, our next meeting will be **May 11, 6:30 pm**. Meetings are open, and everyone is welcome!

Be well and remember, Spring is just around the corner!
Christine, Judie and Nancy

Magnificent Manzanitas

by Teresa Everett

This past week I took a virtual garden tour by going through photos from past CNPS Garden Tours. The gardens were just beautiful, and a common thread throughout was the use of manzanitas as the backbone of their designs. With their sculptural form, mahogany-colored bark, thick evergreen leaves, abundant pink and white flowers, and red berries, the manzanitas made superb foundation plants in every area of these gardens. When one adds the advantages of easy care, drought tolerance, and habitat value to their season-round beauty, isn't it obvious that manzanitas should be the Number 1 pick in every California garden?

California is home to most of the world's 100-plus manzanita species. There are more than 40 species native to California, along with dozens of subspecies, cultivars, and hybrids, ranging from tree forms reaching 25 feet tall to ground-hugging forms rising only a few inches off the ground. Manzanitas are well adapted to our hot, dry summers and cooler, wetter winters. Most tolerate clay soils very well, with the exceptions being the more coastal species. Manzanitas are highly dependent on mycorrhizae, a symbiotic fungus that works with the roots to pull nutrients and moisture from the soil, thus allowing the plants to survive in very poor and dry soil. However, it makes manzanitas very susceptible to overwatering and fertilizing: they do not like being deeply watered in the summer or fertilized at any time. They do, however, enjoy an occasional brief shower—just enough to rinse off their leaves—during our long, hot summers.

Big berry manzanita (*Arctostaphylos glauca*). Photo credit: Calscape.

Manzanitas bloom in winter, and their flowers contain a high-quality nectar, a very important food source for hummingbirds, butterflies, and insect pollinators when not much else is blooming in the landscape. Manzanita (Spanish for "little apple") is named for the beautiful little berries that grace the plants in spring and early summer. The berries are an important food source for birds, bears, coyotes, and gray fox. The scientific name of the manzanita genus, *Arctostaphylos*, is based on the Greek words for "bear" and "grape." Indigenous Californians ground the berries to make a coarse meal and soaked the berries and branch tips to make a delicious cider. The cider tastes great on a warm spring day!

Even when manzanitas are not bearing fruits or flowers, they maintain their beauty through their sturdy evergreen leaves and their lustrous bark that, depending on the variety, can be mahogany, deep brown, purple, pink, or tan. Their bark has the mysterious capability of staying cool to the touch even in the heat of summer, just like their close relative, the madrone (*Arbutus menziesii*). I have heard some people refer to both as "refrigerator trees." Manzanita leaves tend to hold themselves perpendicular to the sun during the hottest time of the day. This minimizes the surface area exposed to the sun, thus conserving moisture in the leathery, waxy leaf.

In the garden, most manzanitas prefer full sun, although some do prefer partial shade. The tree and bush forms do very well in full sun in both coastal and inland gardens. The low, ground-

hugging forms tend to prefer partial shade when being used in inland areas. Most are good on slopes. Manzanitas like their space and do not like being crowded by faster-growing plants. Provide them good air circulation by giving them space to grow to their mature size. Most manzanitas are drought tolerant, accepting occasional water, but no standing water. When first establishing your manzanitas, you will need to water them every 7-14 days throughout their first 2 years or so. Once they are established (having doubled or tripled in size), you will need to cut back their watering to once a month or less. Remember only to rinse off the leaves of an established plant in the summer. When researching which variety to choose for your garden, do pay close attention to its mature size, as well as sun and water requirements.

With proper placement, manzanitas require little maintenance. You may selectively prune to reveal the plant's beautiful structure or to remove dead branches. Be sure to cut back to the collar on the main stem or to a strong side shoot of the branch, avoiding stubs of bare wood that will fail to sprout and may ultimately die. Pruning is best done during the summer when cuts will dry and heal quickly and before dormant buds form. Manzanitas are prone to branch dieback, caused by a naturally occurring fungal pathogen. When removing dead branches or pruning for shape, sterilize pruning shears with alcohol between cuts to prevent the spread of disease. You can also pinch back the tips of branches after the blossoms fade to encourage branching below the flower clusters.

So, now that you're sold on manzanitas, how do you select which ones to grace your garden? When looking at nursery plant lists, you may find that there are 25 or more varieties of manzanita offered. Pretty overwhelming, no? Well, here is a quick rundown of some of the most garden-worthy manzanitas listed by size in descending order.

Tree Forms

Dr. Hurd Manzanita (*Arctostaphylos* 'Dr. Hurd')

One of the biggest of the manzanitas with a beautiful multibranched form.
- 15' tall, 10' wide
- Tree-like, multi-trunked growth habit
- Full sun
- Slow growth rate
- Does well in clay, adaptable to other soils
- Light green foliage, mahogany bark, white flowers

Austin Griffiths Manzanita (*Arctostaphylos densiflora* 'Austin Griffiths')

Very early blooming; can be used as a large hedge or as a tree specimen.
- 10' tall, 6' wide
- Multibranched, upright growth habit
- Full to part sun
- Moderate growth rate
- Prefers well-draining soil but can tolerate clay
- Glossy gray-green foliage, cherry-red bark, pink flowers

Shrubs

Louis Edmunds Baker's Manzanita (*Arctostaphylos bakeri* 'Louis Edmunds')

Blooms very heavily, a show-stopper in winter. Can be shaped into a small tree.
- 6'-8' tall, 6' wide
- Shrub, upright growth habit
- Full sun to part shade
- Slow growth rate
- Good in heavy clay, adaptable to other soils
- Grayish-green leaves, purple bark, pink flowers

Lester Rowntree Manzanita (*Arctostaphylos* 'Lester Rowntree')

Leaf shape and color make it stand out from the other manzanitas.
- 6' tall, 8' wide
- Mounding shrub
- Full sun
- Slow growth rate
- Prefers well-draining soil
- Blue-green triangular leaves, red-brown bark, dark pink flowers

Del Mar Manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*)

Endangered and threatened in the wild. Likes to scramble over and around rocks and walls.
- 6' tall, 6'-8' wide
- Shrub with scrambling growth habit
- Full sun to part sun
- Slow growth rate
- Prefers well-draining soil
- Gray leaves, red bark, whitish pink flowers

We are currently beginning propagation of a low-growing variety, 'deLux', that was selected by Greg Rubin.

Ian Bush Manzanita (*Arctostaphylos densiflora* 'Ian Bush')

This plant's naturally upright, open form and gorgeous bark make it everything to love in a manzanita in a miniature form for a small garden.
- 4'-6' tall, 3'-6' wide
- Open, upright form
- Full to part sun
- Moderate to fast growth rate
- Does well in clay, adaptable to other soils
- Green foliage, smooth dark red bark, light pink flowers

Howard McMinn Manzanita (*Arctostaphylos densiflora* 'Howard McMinn')

Easy and reliable, tolerates garden conditions. A mainstay of native landscapers for years. Perfect manzanita for beginners. Can be grown as a hedge, bush, laced out as a mini-tree, or topiary.

- 4'-6' tall, 6' wide
- Dense and upright, but spreading growth habit
- Full sun
- Slow growth rate
- Does well in clay, adaptable to other soils
- Light green leaves, reddish-brown bark, whitish-pink flowers

Low Shrubs

Sunset Manzanita (*Arctostaphylos* 'Sunset')

Tough and very reliable. Very malleable, makes an exuberant subshrub when unpruned. Shear the sides and you can get a 5'-tall hedge; open it up to expose the beautiful red bark and you get a micro-specimen tree. If you shear the top you can keep it at 2' as a low and wide groundcover.

- 4'-5' tall, 4'-6' wide
- Dense, upright, and rounded growth habit
- Full to part sun
- Slow growth rate
- Good in clay, adaptable to other soils
- Bright green leaves (new growth coppery-red), red bark, white flowers

John Dourley Manzanita (*Arctostaphylos* 'John Dourley')

Lovely low-growing hedge or groundcover. Pink flowers contrast beautifully with its soft gray-green foliage. More tolerant of water than many other manzanitas; can use near lawns.

- 2'-4' tall, 5'-6' wide
- Low, compact, and dense growth habit
- Full to part sun
- Moderate growth rate
- Good in heavy clay, adaptable to other soils
- Gray-green foliage (new foliage coppery-green), red-brown bark, pink flowers

Franciscan Manzanita (*Arctostaphylos franciscana*)

Rock solid and tough as nails from the coast to interior valleys. Great groundcover in the sunny interior where other low-growing manzanitas may not do well. Severely endangered, with possibly only one plant left in the wild.

- 2'-3' tall, 6'-8' wide
- Low shrub
- Full to part shade, can take the sun inland
- Slow growth rate
- Good in heavy clay, adaptable to other soils
- Reddish green leaves, red-brown bark, pink flowers

Groundcovers

Carmel Sur Manzanita (*Arctostaphylos edmundsii* 'Carmel Sur')

Beautiful and refined with a soft texture. More tolerant of water than other manzanitas. Good for transition areas between traditional and water-wise gardens. Recommended for erosion control.

- 1'-2' tall, 6' wide
- Mounding groundcover
- Full sun on coast, part shade inland
- Fast growth rate
- Good in clay, adaptable to other soils
- Green leaves (reddish-green new growth), light pink flowers

Wood's Compact Manzanita (*Arctostaphylos uva-ursi* 'Wood's Compact')

Tolerates more shade than most manzanitas, great under oaks. Dense, dark green with large red berries.

- 1' tall, 3'-6' wide
- Low, compact, and dense growth habit
- Full to part sun on coast, part shade to shade inland
- Fast growth rate
- Prefers well-draining soil
- Dark green foliage, pink flowers

Point Reyes Manzanita (*Arctostaphylos uva-ursi* 'Point Reyes')

Great groundcover for the coast, takes more water than other manzanitas.

- 1' tall, 12' wide
- Lush, low, and creeping growth habit
- Full to part sun on coast, part shade inland
- Slow growth rate
- Needs well-draining soil
- Some green leaves, some gray leaves, pink flowers

Monterey Carpet Manzanita (*Arctostaphylos hookeri* 'Monterey Carpet')

Best on the coast with well-draining soil, great under pines.

- 1' tall, 4' wide
- Low, trailing growth habit
- Full to part shade on coast, part shade inland
- Slow growth rate
- Needs well-draining soil, prefers acidic soil
- Deep green leaves, red stems, white flowers

Please search www.calscape.org for additional manzanita ideas. With all of this variety, there is bound to be a manzanita (or two, or three, or …!) perfect for your garden.

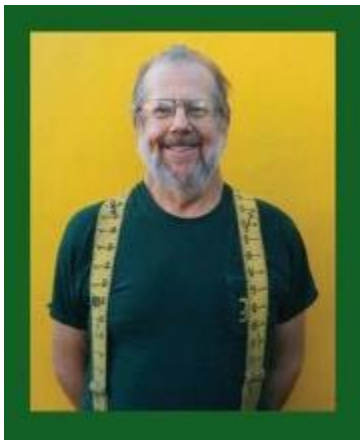
Teresa Everett is a native garden educator and native plant enthusiast. She is a member of the Gardening Committee, and her home was on the CNPS-SD Garden Tour a few years ago. Teresa has worked for

Moosa Creek Nursery as a retail sales and gardening specialist and wrote for their blog "Creekside Chat" until 2018. She has also given many presentations on native gardening at nurseries, gardening clubs and conservation organizations.

PROPAGATION

"Farmer Bill" Tall

On January 26, 2021, we lost a cornerstone of our gardening community to cancer. Farmer Bill was supportive of many worthwhile causes in San Diego, and the San Diego Chapter of the California Native Plant Society was a group that especially benefitted from his vision for the sustainability and health of our ecosystems.



Bill founded City Farmers Nursery in 1972 at the age of 16. In 2014 he offered space in his nursery for the CNPS propagation committee to work. Jim Wadman led the group when it moved onto the property that autumn.

City Farmers Nursery is a CNPS San Diego Chapter Manzanita level sponsor because of Bill's generosity in providing space and the water for us to grow plants. On several occasions, Bill expressed to me his joy at the education and plant production our group was able to achieve using the space. I love that we can communicate knowledge among group members, try out new techniques, and provide plants for the chapter's fall and winter sales.

Last October, I got a call from Bill. He was in the hospital with a dislocated hip and was calling to organize a project with CNPS-SD to get native wildflower seeds to the folks affected by the Valley Fire in September 2020. He wanted our community members to have colorful growth after a difficult 2020 made worse for them by the fire. The timeline was tight but Bill's keen problem-solving and the dedication of the CNPS board moved Bill's vision across the finish line right before his death. Not two weeks before his passing, he contacted me to arrange a group photo to celebrate the project's completion. As my friend Colin Richard put it when another friend remarked that they had just spoken with Bill and had no idea he was so sick, "His spirit was resilient and driven by joy." I hope our community will carry Farmer Bill's spirit onward.

~ **Amy Huie**, Propagation Chair

BOARD MEETING

March Board Meeting

Wednesday, March 3, 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.

January 2021 Board Meeting Summary

- Approved a donation of up to $1,000 to The NAT Botany Department's Plant Atlas as a match to donations made through CNPSSD to the Plant Atlas following Jon Rebman's January 5 virtual presentation to the Chapter.
- Approved a mini-grant presented by Amy Huie, with input from Bill Tall, owner of City Farmers Nursery, for a total of $350 of packaged seed to be given to people whose native habitat burned in the Lawson Valley area. Seeds will be given to at least 70 people and will be distributed by the Fire Chief of the district.

Discussion items included the upcoming plant sale, a scheduled monarch butterfly and host plant presentation by Robert 'BugBob' Allen, virtual garden tour options for this spring, and finding two new chapter board members (board is 11 people and we currently have 9).

February 2021 Board Meeting Summary

- The Board added $1,600 to the Habitat Restoration budget to cover insurance.

Discussion items included the upcoming plant sale, whether the chapter needs to prepare a sponsorship policy, finding a location for seeds & bulbs to be stored/packaged, and potentially supporting a film documentary in production on the illegal poaching of California *Dudleya* species.

~ **Bobbie Stephenson,** Chapter Secretary/
Newsletter Editor

CONSERVATION

Conservation Committee Meeting

Contact conservation@cnpssd.org for information regarding the March meeting.

Whiskey is for Drinking…

For whatever reason, this month seems to be about water issues. The big one, which those on the CNPSSD Discussion Group have already seen, is a proposal to run a pipe from Imperial to San Diego. I'm not sure when the idea first surfaced, but it's been mostly associated with Jim Madaffer, a director of the San Diego County Water Authority, and it has been around since before 2017. But as with all creeping projects in our area, it's surfacing again.

The idea is for San Diego to become "water independent" by getting water directly from the Colorado River. Well, directly from Imperial Irrigation District, meaning directly from the All American Canal. The problem is they are trying to solve is not that San Diego doesn't get water from the Colorado River via the IID (we do), but that it flows through pipes controlled by the Metropolitan Water District, whom our Water Authority has issues with.

The outline of this "crazy idea" (per Madaffer, https://www.voiceofsandiego.org/topics/science-environment/pipe-dream-bring-colorado-river-water-san-diego-re-emerges/) is to pump water from the All American Canal, up over Anza-Borrego State Park, through the Cuyamaca Mountains (Madaffer is purportedly partial to the idea that Elon Musk's Boring Company would drill this tunnel, because he's a Musk fan), using 47 miles of canals, 39 miles of pipeline, and 47 miles of tunnel, for a mere five billion dollars. Probably we'd need to build a billion-dollar desalination plant, too, because Colorado water is the effluent from many saline farms upstream.

But wait, there's more. In some versions of the project, Madaffer has proposed piping treated sewage effluent in a separate pipe back to the Salton Sea. That's another five billion dollars, and another treatment plant. And, of course, shipping sewage to Imperial County is a shining example of environmental justice.

The Water Authority itself says that the project would start benefitting ratepayers as early as 2062, and would possibly be in the black in 2080 at the earliest. Nonetheless, Madaffer has convinced the six Water Authority directors from the City of San Diego to approve further study of the project. This despite the fact that 18 of the Water Authority's 24 member agencies had serious issues with this idea.

The problem is that the ratepayers of the Water Authority collectively use around 400,000 acre-feet of water per year, of which 200,000 acre-feet per year come from the IID, and we're only contracted to get it through around 2045, although we can renegotiate. In comparison, The Pure Water Recycling Project is slated to handle 30 million gallons per day, which is a bit over 33,000 acre-feet per year.

So, I get why the Water Authority is freaking out. What I don't get is why anyone thinks a project that won't be available for decades will solve the problem we have now.

The bigger problem is that the Colorado River is used to around 20,000,000 acre-feet of water per year, and it normally carries around 12-15,000,000 acre-feet. And dropping. If Lake Mead hits the dreaded "Dead Pool" low, it's not clear whether the Colorado will flow to the All American Canal at all, because no one has tested the Colorado Compact over water rights at those extremes. If we can't count on the Colorado, where will San Diego Water Authority get water for us?

I suppose we could spend another billion or two and pipe San Diego effluent all the way to the Colorado, so that Mexico gets its share. Unfortunately for Southern California, if and when the Salton Sea goes dry, it's not just an ecosystem death, it's a public health nightmare. As with Owen's Lake, the bed of the Salton Sea will dry out to produce ultra-fine dust (PM 10 and smaller) that contains all the *interesting* agricultural runoff chemicals that were pumped to the Salton Sea over the decades. That dust will blow through the Imperial Valley and even to LA and San Diego during strong Santa Anas. You like wearing face masks? It will become normal during every wind storm. Not good for the native species either.

So, that's one problem. I'm going to link it to another water issue, because I think there's a partial solution to both.

The second problem is that City of San Diego has about a five billion dollar deficit in infrastructure (https://www.voiceofsandiego.org/topics/government/san-diegos-infrastructure-deficit-is-really-a-stormwater-deficit/). That breaks down to:

- Stormwater: $1.478 billion
- Pure Water Potable Reuse: $1.222 billion
- Water $0.790 billion
- Wastewater: $0.644 billion

Etc. (parks has "only" $91 million in unmet needs). The water issues alone are around $4.134 billion in unmet infrastructure issues. Add another $6 billion to that without adding any more water? Seriously?

Now, I'm not a big fan of the Stormwater Division. I remember that for a number of years my comment letter on the Stormwater Master Plan EIR was the longest I'd ever written. That I'm willing to cut Stormwater any slack at all comes from the long series of truly abysmal documents I've had to slog through in the years since I read their poor documentation. But we have got to work with them, and hope their engineers are better than their EIR writers.

We all suffer from water failures. These include neighborhoods flooding during storms, urban runoff making the sea too toxic to swim in, stormwater scouring canyons and dumping sediment in coastal marshes, and weeds like pampas grass, tamarisk, and palms clogging up what used to be ephemeral creeks. And then there are all the busted structures losing water, leaking sewage, and causing potholes, sinkholes, and all sorts of other problems.

Here's where we enter the labyrinth, because this $4 billion water infrastructure deficit is an unholy combination of drinking water coming in (largely from the Colorado), former Colorado River water headed out to sea as our sewage, rainwater flushed off our impervious urban spaces and into pipes and canyons, and all the effluent these systems combine into when they break.

To me, it looks like the solution to this involves a lot of moving pieces:

- Wean ourselves off Colorado River water. The river may well dry up, and even if it doesn't, we have to find carbon-neutral ways to pump it and maintain the infrastructure that pipes it here. Better to limit that as much as we can.
- Get our clean water and sewage separated by fixing the pipes.
- The big one: divert as much stormwater as possible away from the stormwater system. When it first falls, it's rain water, not a liquid that's notoriously "too thick to drink, too thin to plow" like Colorado River water. While it makes sense to move stormwater away from areas that flood, a huge amount of our piped water goes to landscaping, gardening, and agriculture. Getting these watered by the rain as much as possible makes a lot of sense. This is something CNPS knows a lot about already, and we're in a good spot to do much more in coming years.
- Take environmental justice seriously. Those neighborhoods that flood during storms mostly aren't very wealthy. And most of the people in Imperial County aren't very wealthy either. Taking water from Imperial County while mixing rainwater with sewage in poor neighborhoods is the worst option. Dumping that mess into canyons then impacts the native plants CNPS cares about. We all need the same set of fixes.
- And yes, climate change. San Diego is not blessed with a lot of carbon sinks to capture our emissions. The big sinks include farms, riparian forests, marshes, salt marshes, and eelgrass beds. All of these could benefit from more rainwater and less salty, toxic crap flowing into them. Sewage and even salty Colorado River water limit their ability to sequester carbon.

After due consideration, I think that Phil Rouillard's original suggestion is the best one. This is a good issue to write to City of San Diego Mayor Todd Gloria (MayorToddGloria@sandiego.gov). Jim Madoff's boss. Respectfully suggest that, if he's serious about dealing with climate change, environmental justice, the biodiversity crisis, and our infrastructure crisis, that he would do better to help focus on cleaning up the water mess we have on this side of the mountains, getting everyone into the business of capturing San Diego rainwater and using it instead of dumping it, and letting Imperial County put more river water into the Salton Sea.

It's certainly not an easy task, but it's better than blowing any part of five billion on a crazy idea.

~ **Frank Landis**, Conservation Chair

HABITAT RESTORATION

On January 28, 2021, the Rancho Santa Fe Review highlighted a partnership to remove invasive plants in an effort to fight wildfire risk in the Fairbanks Ranch-Rancho Santa Fe area. Planting native trees, by Urban Corps partners, in parts of the San Dieguito River Valley will help augment the revival of native habitat. The CNPS-SD Habitat Restoration Committee is part of this partnership and is the overall supervisor of the work to remove 18-foot-tall giant reed (*Arundo donax*) and other non-native species like pampas grass, tamarisk, palms and eucalyptus to make way for primary restoration through native plant recruitment. Other groups participating in the effort are the San Dieguito River Valley Conservancy, the Urban Corps of San Diego, and the Rancho Santa Fe Fire Protection District. The US Department of Fish and Wildlife was able to initially provide grant money, which was earmarked for habitat re-establishment, for the project. Other funding sources also contributed.

Thank you to Bob Byrnes and Arne Johanson who chair the Habitat Restoration Committee and provide countless volunteer hours to their projects!

The San Dieguito River Valley at Fairbanks Ranch.

IN THE FIELD

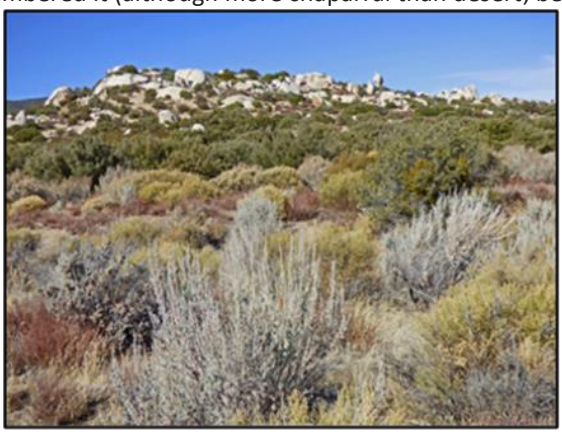
McCain Valley

Photo-Essay by Jürgen Schrenk

McCain Valley has changed a lot since we went there last, about two decades ago. It is no longer a largely untouched wilderness area but home to hundreds of wind generators, all connected by gated driveways and/or transmission lines. The formerly rough jeep trail to Cottonwood Campground is now a smooth gravel road passable by any sedan, Carrizo Overlook has been turned into a (very scenic) picnic area, and Lark Canyon isn't just a campground but also an ORV playground.

The 180° view from Carrizo Overlook (above), however, is as gorgeous as before, the vegetation as varied as we

remembered it (although more chaparral than desert; below),



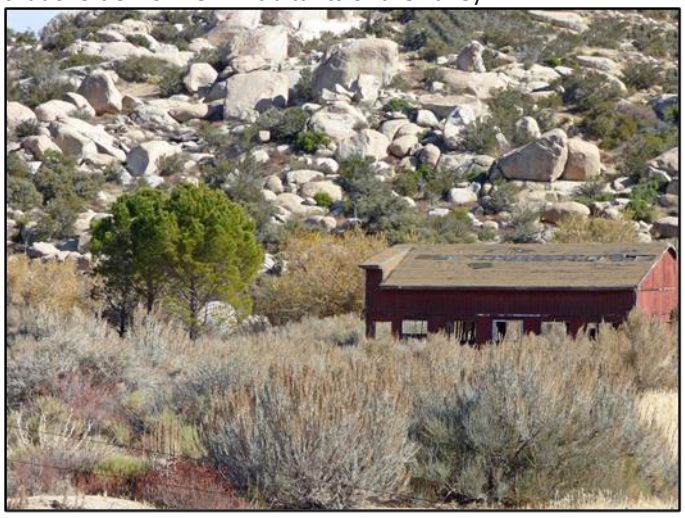
and some of the boulders are still surrealistic (right).

Muller oak, also known as desert scrub oak, (*Quercus cornelius-mulleri;* left) was loaded with acorns.

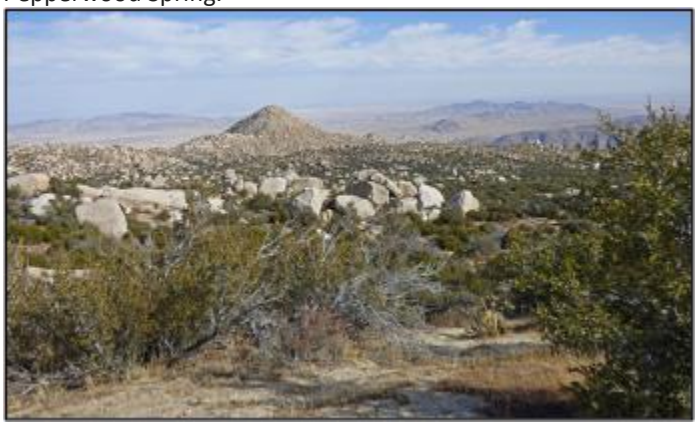
Pointleaf manzanita (*Arctostaphylos pungens*, right) occurs there but is not rare.

While we are talking shrubs, of course the ubiquitous cane cholla (*Cylindropuntia californica* var. *parkeri*, below) has to be mentioned.

An abandoned ranch house (below) and 2 pine trees are all that's left of former inhabitants of the valley.



We hiked the gated and blocked McCain Valley Road to the "Point of No Return", where it turns into an overgrown trail to Pepperwood Spring.



We then climbed the low ridge to the left and enjoyed the view of Sombrero Peak and the low desert (above), before returning to Cottonwood Campground and our car.

P.S.: “Point of No Return” is the nickname given to the road’s end by a bunch of dirt bikers we met during our return hike, since nobody who decides to follow Jerry Schad’s description of a tough 2-day one-way hike from there to the desert floor is expected to make it back up.

PLANT SCIENCE

Origin of Flowering Plants

A new study supports the idea that flowering plants originated in the Jurassic or earlier, which is millions of years earlier than their oldest undisputed fossil evidence suggests. Some flowering plants had been living for a very long time shadowed by ferns and gymnosperms, similar to how mammals lived for a long time during the age of dinosaurs. Read more at: www.sciencedaily.com/releases/2021/01/210128134720.htm

Heteranthery in Clarkia

Using the genus *Clarkia*, a team led by a botanist at UC Santa Cruz studied heteranthery (having differing anthers on the same flower) and bee pollination in two California native species: *Clarkia unguiculata* (elegant clarkia) and *C. cylindrica* (speckled clarkia). There are about 41 species of Clarkia in California and about half have two types of anthers. Read more at: https://www.sciencedaily.com/releases/2021/01/210112125210.htm

RELATED ACTIVITIES

Calflora Needs Photos Please Help!

Every photo you add informs the database as a whole, thus helping users develop a deeper regional understanding. Photos of any wild plant species are welcome. Photos document that a particular taxon occurred at a particular place and time, providing baseline knowledge for which to track change. Some photos document the plant phenology —when it was budding, flowering, fruiting, senescent. Your photos help educate other plant enthusiasts and encourage them to botanize. They may also provide locations for researchers seeking voucher specimens. Here is the link for how to upload and publish your photos in Calflora: https://conta.cc/3pF5sbC

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 10th of the month preceding the newsletter; that is March 10 for the April newsletter, etc. Please submit items to newsletter@cnpssd.org .

California Botanical Society

2021 Botany Speaker Series!

CALL FOR ABSTRACTS
DEADLINE MARCH 12, 2021
28th Graduate Student Symposium
Virtual Meeting via Zoom
Friday, April 30, 2021 and Saturday, May 1, 2021
Students of all levels engaged in any aspect of western North America plant sciences are encouraged to participate.

Info at: www.calbotsoc.org

ESA 2021
Vital Connections in Ecology
August 1-6, Long Beach, California

If public health conditions allow, the 2021 Annual Meeting will be a hybrid meeting in Long Beach that combines in-person and virtual elements. If in-person elements are not possible, the meeting will be virtual (with all sessions online). Contributed presentations will be entirely virtual in both scenarios with an on-demand presentation (uploaded talk or e-poster) and a live virtual discussion scheduled for the session during the week of the meeting. For more information visit www.esa.org/longbeach.

Desert Wildflowers

On February 9, 2021, Desert USA reported that the Anza-Borrego desert is very dry this year having had only 0.5 inches of rain as of that date. Therefore, the outlook for wildflowers is below average. On February 18, the website reported: Very dry year, Hellhole Canyon and Palm Canyon got some rain off of the mountains, may be some wildflowers there. Some wildflowers at the upper elevation.

For more up-to-date info, visit: https://www.desertusa.com/wildflo/ca_abdsp.html#ixzz6mP6WswIM

The less common orange variant of chuparosa (*Justicia californica*). Photo by Jürgen Schrenk.

CNPS-SD Activities Calendar March 2021

3/3: **Board Meeting via Zoom, p.5**
3/9: **Garden Committee Meeting via Zoom, 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.

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

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March 2021 Newsletter

Dedicated to the preservation of the California native flora

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Two OPEN positions on the board.

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Email DISCUSSION GROUP

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

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