



CHAPTER MEETING

**Fascinating Fungi Explorations in Orange County and
Nearby Regions**

February 17, 2022

Speaker: Joanne Schwartz

CALENDAR	
Feb 3	Board Meeting
Feb 17	Chapter Meeting
Feb 20	Moro Canyon Field Trip
Mar 3.....	Board Meeting



Fungi: We can only save what we know and understand. What are fungi and how are they connected to other life forms? Why do they need to be protected, along with their habitats? Joanne Schwartz will discuss a community “citizen” science approach to discovering and documenting fungi in ways which will advance scientific knowledge and lead to management and conservation of fungal species, focusing on rare species and associated habitats.

Where to find fungi? What to do when you find an interesting mushroom? How to document it with photographs and appropriately rich data? How to determine whether it might be special enough to collect and dry? How to make your pics and data public by posting on-line? How to get a DNA barcode for your discovery? How to voucher/store it in a fungarium for long term study? We’ll consider all of these questions and more.

Joanne Schwartz, an OC-CNPS member and trip leader, is an avid amateur mycologist, having studied fungi since the 1960s. She has collected and photographed fungi throughout the new and old world and has participated in field studies in Japan, Peru and Bolivia as well as the Redwoods of coastal California. Always searching for fungi to study, photograph and identify, Joanne is often found looking down while hiking. She is also an eager mycophagist (fungi-eater) and prepares wild fungi for tasting and for the dinner table whenever possible.

Joanne is on the Board of the Fungal Diversity Survey (FunDiS) which empowers Community Scientists to study fungi in their local area, with a focus on rare and under documented species. She has received funding for fungal DNA sequencing projects in Orange County and on the Santa Cruz Island Reserve, and has discovered new species and some with major range extensions in each area. Her lectures to the Chapter are always well prepared and well attended!

Register in advance for this meeting:

<https://us02web.zoom.us/meeting/register/tZcpcuCrpzgiG9ebjHI403qIDEpo-5my30Tc> After registering, you will receive a confirmation email containing information about joining the meeting.

ROOF-TOP SOLAR—A MESSAGE FROM THE CNPS STATE OFFICE

What do residential rooftop solar and the Rock Gilia plant have in common? They both need our protection: The California Public Utilities Commission wants to slash the incentives to homeowners who use rooftop solar. The credit homeowners receive for generating power beyond what they use would be cut by 87%. Homeowners would also have to pay a new monthly fee, which is essentially a tax on their rooftop solar. For the average homeowner,

it would be \$56 a month. This means that fewer people would install their own solar, leaving the utilities to build, operate, and profit from it.

The utilities would need to construct their solar arrays on our remaining intact habitats—namely our iconic California deserts and grasslands. As you know, these untamed lands like our deserts are home to the Rock Gilia, as well as the Joshua tree, Barrel Cactus, Ocotillo, Prickly Pear, Blue Palo Verde, brittlebush, Catclaw, Mojave Yucca, and many more. The plants, soil, air, and water are all interdependent, and so are the insects and animals that depend on them.

The CPUC is trying to tell Californians that this is an issue of equity—either solar belongs to the utilities or rich people benefit from solar credits while people with lower incomes pay more. According to a [recent New York Times article](#), “About 12 percent of California’s rooftop solar users, or 150,000 homes, have incomes low enough to qualify for [discounted electricity](#) — \$34,840 a year or less for individuals and up to \$62,080 for families of five. That’s more than all of the 107,000 rooftop solar homes in Florida.” We think that by all means Governor Newsom should continue to seek out ways to make solar power equitable, but if residential solar is taxed, fewer people will use it. If fewer people use it, the utilities will also need to rely on natural gas and other fossil fuels, which we can’t afford in our battle to halt climate change.

Please call Governor Newsom at 916-445-2841 and tell him that you are opposed to the rooftop solar proposal released by the CPUC. The time to act is now: hearings are being held this month and Governor Newsom will make his decision soon. Please don’t delay! We thank you.

FIELD TRIP

Sunday, February 20

Crystal Cove State Park with Lana Nguyen, State Parks biologist

Along with Laguna Canyon and Aliso Canyon, Moro Canyon comprises one of the major coastal watersheds of the San Joaquin Hills. Oriented perpendicular to the coast and cutting about three miles into the foothills it offers a range of plants typical of our coastal foothills. We will possibly be looking at restoration areas in the Bowl and other locations nearby. To start, we will head straight up the canyon, looking at the plants of the coastal sage scrub and grassland areas along the way, while doing our best to avoid the weekend mountain bikers. Small areas of riparian and chaparral will offer variety. Trip will be around 4.5 miles total, out and back. Pre-registration is required. Please go to OCCNPS.ORG for further details and to register.



ACORN GRANT AWARDED TO LAKE FOREST SCHOOL

The Santiago STEAM Magnet Elementary School has been awarded a \$500 Acorn Grant toward the creation of an outdoor learning space where students can observe and nurture a native habitat for explorative class sessions. Plantings will emphasize locally native plants including larval host and nectar plants.

E. O. WILSON AWARD FOR OUTSTANDING SCIENCE IN BIODIVERSITY CONSERVATION AWARDED TO NAOMI FRAGA

The Center for Biological Diversity presents the E. O. Wilson Award to a scientist who has made an outstanding contribution to conservation. This year’s recipient in biodiversity conservation is none other than Chapter friend

and Southern California Botanists board member and past president, Naomi Fraga! “We’re thrilled to present the Wilson Award to Naomi Fraga for her relentless efforts to document, protect and restore rare plants,” said Kierán Suckling, the Center for Biological Diversity’s executive director. The award is named after renowned scientist Edward O. Wilson of Harvard University, known as “the father of biodiversity.” “I congratulate Dr. Fraga and express gratitude for her heroic work to save rare plants and protect Earth’s diversity,” said Wilson. “Her advocacy for plants, which far too often are overlooked, is of utmost importance in abating the extinction crisis.”



Among Naomi’s many contributions to botanical conservation is her advocacy for Tiehm’s buckwheat (*Eriogonum tiehmii*), as well as her work monitoring and conserving other rare plants such as the federally endangered Amargosa niterwort (*Nitrophila mohavensis*). She received the 2019 U.S. Fish and Wildlife Service’s **Recovery Champion** award for her work, which led to recovery of the Hidden Lake bluecurls (*Trichostema austromontanum ssp. compactum*). Earlier this year she was also recipient of the Center for Plant Conservation’s **2021 Star Award**.

Fraga has also contributed significantly to the literature of plant taxonomy, including a notable revision to the taxonomy of monkeyflowers recently published in the *Flora of North America*. Her work has illuminated threats to numerous newly described species and is informing plant conservation work across California and Nevada.

“I am deeply honored to accept this award named after one of my all-time conservation heroes,” said Fraga. “Working in support of plants is a journey of gratitude. Rare plants like Tiehm’s buckwheat teach me about resilience in the face of adversity. Through science and advocacy, I hope that my work will lead to protections that will enable future generations to learn those same lessons.”

Naomi, a friend to all native plant lovers, is a Research Assistant Professor of Botany at Claremont Graduate University and Director of Conservation Programs at the California Botanic Garden. In addition to her speaking to various chapters of CNPS, Naomi has served on the Southern California Botanists board since 2002, and has served as Vice President, President, and Secretary since 2015. We heartily congratulate Naomi for this well-deserved honor!

DUDLEYA VISCIDA—RARE SOUTHERN CALIFORNIA TREASURE

—Dan Songster with Steven McCabe

Late April in 2012, a warm and sunny blue sky day, perfect for hiking up into the Santa Ana Mountains on an OC CNPS field trip. These trips are always a welcome adventure and this one ended up in Upper Hot Springs Canyon. Ron Vanderhoff was leading, and he had obviously done his homework for as we passed certain plants we stopped, got a brief history, and examined them. It is such fun to see a plant in the wild you have grown at home (or tried to grow) and see what conditions they thrive in out there. We started out slipping through a shady oak woodland edged with grassland including owl’s clover, both colors of coast baby-star, wine cup clarkia, and the always cheerful Johnny jump-ups. As we transitioned to the coastal sage, we enjoyed up close the minty San Miguel savory—a first for me to see this lovely little Rambler in the wild and in bloom no less! With foothill yucca dotting the hillsides around and above us, we passed through the pungent white sage and followed the creek enjoying various blue bells, chia, blue dicks, paint brush and more. As the canyon narrowed, bunch grasses arched over boulders and here and there a veritable forest of common meadow rue stood along the trail—simply lush. Anyway, after a wonderful morning of discovery we reached our turn around/lunch spot on the edges of the creek we had been following. The water flowed down a face of stone some 25 feet or so into a pool beneath us. It



turned out, that pool had California newts in it and as some scrambled down to inspect them, I sat and had my lunch in one of those quiet spots one always remembers.

All around our lunch spot were the most impressive and lovely green Dudleya with leaves like the Lady Finger Dudleya (*D. edulis*) but larger and bright green. Wedged into cracks, spilling from the cliff edges, and growing in various depressions, these were the *Dudleya viscida* often called Sticky Liveforever. They were not in bloom but last year's dried flowers stalks showed the general size and width of what must have been a gorgeous display 10 months earlier. Although it is ranked as a

California Rare Plant (it's rank is 1B.2—rare, threatened, or endangered in CA and elsewhere) it was abundant here in this rocky canyon and while others scrambled down to get photos of the newts I sat against a comfortable rock and took in the beauty of this unexpected succulent whose green leaves were tinged with red, likely due to cooler evening temperatures in the weeks prior to our visit.

Some of the Dudleya were growing in shallow depressions in the rocks with no more than a few inches of soil. This made me think of growing it in containers and like many other Dudleya, it has excelled in the confined spaces of a pot with very little care. A decade later it is still one of my favorite Dudleya and I still have it in the original pots. When I see mine in bloom, I often think of that magical field trip!

More information about this wonderful plant can be gleaned from an article written by Steve McCabe, a Dudleya expert (and rock climber) from the Santa Cruz Arboretum. The article was titled simply "*Dudleya viscida*" and was published in the 2006 Pacific Horticulture Journal.

In the light of a warm day, you can see (and smell) that *Dudleya viscida* has attractive lime-green, shiny foliage, with a unique aroma that reminds some people of pines. [Roger Raiche, former Director of UC Botanic Garden, Berkeley thinks its fragrance is like citrus.]

It is one of the easier dudleyas to grow, perhaps because it kills some of its enemies. The viscid leaves are sticky enough usually to deter sucking pests like mealy bugs and aphids. However, one must be careful when repotting and weeding not to get dirt on the leaves; otherwise, they will retain some dirt until replaced by new leaves. The species seems more resistant to fungal problems than most other members of the genus.

It is an excellent, easy plant for a well-drained rock garden in a mild-climate region. A single rosette can be 3-9 inches (7.5-22 cm) across and about as tall, though shaded plants may be larger. Older, branched plants can eventually become over a foot (30 cm) in diameter. If it is grown with more water-loving plants, a collar of gravel near the crown may prevent fungal problems. *Dudleya* can be started remarkably easily from seed and fairly easily from cuttings. Surface-sow the seeds, without covering them with any soil or sand, and you should have hundreds from a single plant. In spite of this ease, they are not weedy. Though there are some with paler flowers, the choice forms have rose-pink flowers. With open floral clusters a few inches across, a 6-inch diameter plant may have several stalks at once, providing a hemisphere of blossoms for two to three months. They are some of my favorite plants for planting in a relatively dry rock garden.

Stephen McCabe is Coordinator of Research and Education at the Arboretum, University of California at Santa Cruz

NOTE: For those Dudleya lovers out there who only grow the chalk dudleyas and other silver leaved species, I recommend you try *Dudleya viscida* for the reasons mentioned above. Our friends at Tree of Life Nursery currently have this plant in stock!

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looks like cornbread batter to me
 says my wife
 that yellow blob also goes by the moniker of scrambled eggs
 and most descriptively dog vomit slime mold
 descriptions emotions connections
 an unwanted guest in your garden mulch
 oooo is a likely response
 and questionably is it poison
 let's get rid of it quick
 but pause reflect research
 that what you have found
 rather that what has found you
 is life
 alive pulsing seeking food digesting
 getting ready to recreate life
 like 1 billion years ago—life
 rather than ick or ooo
 a proper response is ahhh awe ahhh
 get thee to YouTube
 and be further awed by time lapse
 if you are lucky you already know joanne schwartz
 yes mushrooms
 but wait she advises
 this is not a mushroom
 neither a fungi or plant or animal
 rather family protista
 those things like red kelp colonies of cells
 that are not fungi plant or animal
 intriguing life
 that yellow blob is a mass of nuclei
 with no inner cell walls
 just one giant cell of life
 hopefully you will find this disconformity and
 venture forth to the land of awe
 yes it is native
 yes it is alive
 yes it is a surprise
 enjoy the awe



Mason 3 Regional Park, Irvine CA
 Dog Vomit Slime Mold, *Fuligo septica*
 Joanne Schwartz, fungi friend
 "disconformity" thanks to Robert Michael Pyle
 I'll let you look up the other stuff, just google
 Dog Vomit Slime Mold, *Fuligo septica*

chuck wright