

The California Native Plant Society

Bristlecone Chapter Newsletter

Volume 42, No. 5 September-October 2021



President's Message

Recently reading past issues of Bristlecone chapter newsletters, I came across the September 2019
President's message which began "... this summer's news—heat waves in Europe...burning tundra...glaciers melting at an unprecedented rate..."
The state of the earth has changed since 2019, and not for the better. In 2021 we can include historically destructive wildfires, flooding, collapse of insect, plant and bird populations, and a continuing pandemic. I'm often beset with feelings of despair and helplessness over the ecological crisis. How can we as individuals and communities take action? One thing I know is that we cannot ignore these scenes of destruction. We also need to take care of ourselves so that we even have the capacity to act.

For me, spending time among the foxtail pines in the southern Sierra is wonderfully peaceful and grounding. Endemic to California, these conifers exist in a limited high-altitude region mostly in Kings Canyon and Sequoia national parks. Related to the ancient bristlecone, foxtail pines can reach ages of 2,500 years or more. I love these trees, especially the ancients that exude a timeless quality of strength and calmness. Some foxtails are straight and tall with trunks of large girth and graceful draping green crowns. Others display more character—enormously twisted with bare branches jutting against the sky, a thin strip of living bark winding along limbs to a garnish of green needles at the end. Poet Gary Snyder describes them:

foxtail pine with a clipped curve-back cluster of tight five-needle bunches the rough red bark scale and jigsaw pieces sloughed off scattered on the ground. As wildfires decimate millions of acres of forest habitat across the west, I feel immensely grateful to be in the presence these amazing beings. My deepest wish is for them to survive this crisis.



Living bark on foxtail pine. Photo by Kelly Bahr.

We must conserve—use only what we absolutely need and nothing more. We must campaign for the protection of wild places. Whether forests, sagebrush steppe, desert, or prairie—when undisturbed, these biomes regulate climate and act as natural carbon sinks. Destroying the very vegetation and soil that is necessary for our survival simply makes no sense. So,

we must oppose projects that destroy wild places—Conglomerate Mesa, Long Valley, and Rhyolite Ridge—and so many more. Rachel Carson in her wisdom wrote, "The human race is challenged more than ever before to demonstrate our mastery, not over nature but of ourselves."

—Kelly Bahr

CNPS Bristlecone Chapter Symposium: DeDecker Botanical Grant Research Projects

Wednesday, September 22nd, 7:00 p.m. Zoom Link TBA

Join us for lightning presentations from recipients of the 2021 Mary DeDecker Botanical Grant. The chapter will host an evening symposium covering local research in botany and ecology, with interactive discussion time on the important conservation relevance of each project.

Carolyn Mills studies floristics as a master's student at California Botanic Garden/Claremont Graduate University and works as a biologist with the Great Basin Institute in Death Valley National Park. The Nopah Range is a botanically rich yet understudied mid-elevation mountain range located in southeastern Inyo County that is composed almost entirely of carbonate rocks and hosts a rich suite of limestone endemic plant species. Carolyn will share preliminary results of her research, including range extensions and new occurrences of rare taxa, and she'll highlight Mary DeDecker's contributions to the flora.



Agave utahensis var. eborispina. Photo by Carolyn Mills.

Ashely Grupenhoff is an ecology graduate student at UC Davis studying the consequences of altered fire regimes on species composition, ecosystems, and future fire behavior. Fire historically played a dominant role in shaping many forest communities in the eastern Sierra Nevada, although these forest types are currently at risk of unprecedented severe wildfires due to changing climate and land management practices. Ashley will examine the impacts of a recent thinning project on forest structure and the subsequent changes on plant diversity and predicted future fire behavior at Valentine Camp UC Natural Reserve near Mammoth Lakes.



Photo courtesy of Ashley Grupenhoff.

Maria Jesus will discuss her master's research documenting the flora of the southern Inyo Mountains—a regionally important plant area with limited representation in botanical collections. A total of 360 vascular plant taxa were documented during this study, including more than 30 that are listed as rare by CNPS. Maria recently graduated from California Botanic Garden's botany program and is looking forward to advancing native plant conservation in her future endeavors.



Maria making observations in the Inyo Mountains. Photo by Patrick Donelly.

Elijah Hall is a PhD candidate at the University of California, Riverside studying how climate change is impacting flower-pollinator relationships through time (phenologically and interannually) and space (elevationally) in the White Mountains. Climate change is decreasing plant primary productivity, which scales up to impact flowering reproduction, and community dynamics. Elijah will discuss how floral abundance and phenology can shift interannually and what these changes mean for the future of plants and pollinators in the White Mountains.

-Michèle Slaton

Conservation: September Update

№ K2 Gold expands exploration area to Cerro Gordo, scoping begins for Conglomerate Mesa

On August 11, K2 Gold (a subsidiary of Mojave Precious Metals, Inc.) announced plans to pursue mineral exploration in the Cerro Gordo area of the southern Inyo Mountains. K2 Gold's press release states, "K2 has agreed to expend a minimum of US\$25,000 annually on exploration, development, and mining work on the Cerro Gordo claims, for an aggregate amount of at least US\$100,000 over a four-year period." The area of interest overlaps with a high-elevation population of Joshua trees (*Yucca brevifolia*) as well as a relatively large population of Shockley's prickleleaf (*Hecastocleis shockleyi*). It is unclear whether mining development in the Cerro Gordo area will occur on public lands and if the scope of work will warrant a permit.

Nearby, at Conglomerate Mesa, K2 Gold's plans to pursue mining development in designated conservation areas have reached a key stage. On July 31, the Bureau of Land Management (BLM) announced a 30-day scoping period intended to solicit public comment on issues that will be an analysis of environmental impacts. As expressed in a letter to the BLM, we hope the agency will seriously consider alternatives that avoid road construction and limit impacts to sensitive plant species.

—Maria Jesus

Keep Long Valley Green Coalition Initiates Email Series, Every Last Drop

The Bristlecone Newsletter has followed the efforts of Keep Long Valley Green (KLVG) to assure a predictable flow of water to agricultural leases in Long Valley and Little Round Valley. This coalition has involved tribal leaders, Mono County officials, ranchers, and several environmental groups. Out of those efforts, a decision was made to tell our stories of water conflicts with Los Angeles Department of Water and Power (LADWP) from the point of view of Eastern Sierra citizens. This email series is titled *Every Last Drop* and includes the stories of the neverending quest for more water exports expanded to include watersheds from Mono Lake south to the Owens Lake bed.

Wendy Schneider with Friends of the Inyo provides the following links:

- A link to the first issue of Every Last Drop, our email series to tell the stories of LADWP in the Eastern Sierra. https://friendsoftheinyo.salsalabs.org/every-last-drop-1-1
- 2. A link to sign up to receive the newsletter. https://keeplongvalleygreen.org/join-email/

Please forward both to your networks to help us build the number of supporters we need to get LADWP's attention.

Also, Wendy will be adding all of the coalition names to the list of supporters that receive the newsletter. Please let her know if you do not want to add your name, but please know it is very easy to unsubscribe, and your email address will be kept confidential. The

newsletter will come every other week. And if email series author, Jamie Della, reaches out to you, please respond and set up a time to talk about your story.

As those many phone conferences on Long Valley issues expanded to other parts of the Eastern Sierra, Lynn Boulton, Executive Director of the Range of Light Sierra Club and Edie Trimmer, member of Bristlecone California Native Plant Society, decided to visit the many mitigation sites in Inyo County. These visits took approximately a year, with Mark Bagley joining as a consulting botanist over the past summer. Below is Lynn's account of what we found.

-Edie Trimmer

Conservation: Water Updates

LADWP Is Still Working on the 1991 EIR Mitigations

It has been 24 years since the 1991 Environmental Impact Report (EIR) officially took effect. In June 1997, the California Third District Court of Appeals discharged the 1972 writ that had ordered the Los Angeles Department of Water and Power (LADWP) to prepare an EIR on their groundwater gathering activities to fill the Second LA Aqueduct. The 1991 EIR identified projects that would mitigate some of the damage done to the environment in the Owens Valley after excessive groundwater pumping in the 1970s and 1980s.

LADWP started groundwater pumping in the Owens Valley in 1971 to fill the second barrel of the LA Aqueduct. That groundwater pumping caused at least 655 acres of groundwater-dependent vegetation to die off and all but one of the major springs in the valley to dry up. Many natural alkali meadows in the Owens Valley have been lost. By 2008 a final list of 64 mitigation projects emerged following an MOU (memorandum of understanding), several court orders, a CEQA project, and MOU party agreements. Where do we stand with these projects today?

Different types of mitigation projects were created. Many were quickly completed and have been a great benefit to Owens Valley communities, for example, providing water and/or funding for Diaz Lake, a park in each town, two woodlots, the grounds at the Eastern California Museum, lawn areas at the Laws Museum, the Millpond Recreation Area, two fish hatcheries, and irrigation for ranchers. Others,

including revegetation projects, are incomplete. These incomplete projects take a variety of forms and are meant to serve a variety of purposes, such as providing habitat for wildlife or reducing the dust from abandoned agricultural fields. Some mitigation projects created ponds. Some pipe water to the start of spring channels to simulate the natural springs that dried up. Some grow shrubs on land that had turned to dust when LADWP revoked irrigation water or dropped the water table below the root zone. A few were to restore 80 acres of alkali meadows.

Not all mitigation projects receive water; for those that do, most receive water from groundwater pumping. This "fix" of using pumped water to mitigate impacts of past pumping can place additional stress on groundwater resources.

Vegetating Abandoned Agriculture Parcels/Lost Alkali Meadows

The revegetation projects are the main ones that have not been completed after all these years. The 1991 EIR identified 655 acres of groundwater-dependent vegetation that had been affected by pumping but recommended approximately 80 acres of mitigation projects. Although only an eighth or less of the acreage damaged is to be revegetated, these projects have been the most difficult to complete because LADWP "revegetates" while providing as little water as possible. Compounding the problem, LADWP's annual pumping levels do not allow the water table to rise to the root zone. (Annual



LADWP had a goal to restore alkali grasses that grew at this mitigation site prior to groundwater pumping. It was fenced in to keep cattle out and a drip system was put in.

Photo by Lynn Boulton.

reports by LADWP and Inyo County Water Department document the water delivered to projects and depth to water at monitoring wells, respectively.) Plants need water to grow. We are still waiting for the 80 acres of meadows to be restored and bare ground to be covered in shrubs, not weeds.

Most of the revegetation projects for abandoned "ag" lands have been planted over and over again as LADWP experimented with dry planting, dry seeding, and types of drip systems needed to get upland shrubs established. Drip systems with buried hose worked in one project. However, most revegetated areas didn't receive enough water through the drip system to thrive, and the present vegetation are poor substitutes for what once grew there. These attempts at revegetation do not meet the mitigation goals set forth in the 1991 EIR and subsequent documents. In some cases, LADWP planted shrubs in rows and created a near monoculture assuming other native species would move in over the next 50 years to make it a more natural ecosystem. These are the projects that have so far taken decades and are still incomplete—not only for lack of effort, but for lack of sufficient water.



This parcel was previously used for irrigated agriculture. The site was replanted with rows of shrubs that shouldn't need irrigated water once they are established. However, successful establishment of desired species has not been achieved; most of the plants shown here are invasive tumbleweeds. A drip system was installed, but not enough water was provided. Photo by Lynn Boulton.

LADWP admits there are 13 projects that have not been completed, and Inyo County and the Sierra Club Range of Light Group believe there are several more. Range of Light Group is currently looking into each mitigation measure and assessing its status. It is safe

to say that after 24 years for some and 13 years for others, it is time to complete them all.

In future articles, we will examine specific projects in more detail.

We've mapped out project locations and encourage people to visit these places. Use the following link for the map: https://tinyurl.com/mitigationsites
You can zoom in and move around the map to locate specific projects. (Note: not all projects are on the map.) Many more photos are available. If you are interested in a tour, please contact us (Lynn Boulton and Edie Trimmer) at rangeoflight.sc@gmail.com.

—Lynn Boulton

Greenhouse Update

The plants for this year's sale were the best looking I have ever produced. I was really pleased with how well they all grew despite the heat. I also had a good inventory of plants.

The sale started off with a bit of uncertainty. A week before it was to begin the Bristlecone chapter site developed a glitch and it wouldn't let you pay for your order. Maya at the state office and the computer engineers at Square worked for days to get the bug worked out, and two days before the site opened, they finally fixed the bug.

The day of the sale I had everything set up to do the circular entry by the west gate into White Mountain Research Station and exit by the main gate, but that morning, I couldn't get the lock on the west gate undone. I had to quickly shift signs around and make the main gate be both entrance and exit. This all worked out; it just caused a bunch of extra stress right before the sale opened. In the end I hope we can continue to do it this way as it saves having a volunteer sitting out on the road directing people on how to drive into the station.

The sale itself was a grand success. We had 88 customers who bought 1,423 plants. I had plants that I started for the spring 2022 sale that I ended up adding to this fall's sale inventory.

I think we are all getting better at learning how to use these online programs to purchase things. The only main glitch with the web site was that people didn't

see where they could choose a pick-up time or notice that the web site assigned them a time, so we had quite a rush of people come around 10 am. All in all, the sale was quite successful and there were just a few problems. This was our second highest revenue year since 2019.

—Katie Quinlan

Welcome all!

To the newest members of our chapter, we warmly welcome you. Douglas in Bakersfield, Gary in Bishop, Mark in Davis, Tony of La Jolla, Donald in Monrovia, Jennifer in Sacramento, Kathy of Santa Barbara, Daniel of Santee, Karen in Swall Meadows, and Donna and Jackie of Tehachapi, your support is important to help grow the CNPS community. Thank you for joining our chapter.



Hiker beside an ancient foxtail pine in the Golden Trout Wilderness. Photo courtesy of Kelly Bahr.

Up-Coming Events

(For updated information, visit www.bristleconecnps.org/events)

Chapter Events

Wednesday, September 15, 6:00 p.m. Board Meeting

All members are welcome to join. Contact our Secretary, Kathleen Nelson, at goatheads@aol.com for the Zoom link.

Wednesday, September 22nd, 7:00 p.m. Chapter Symposium: DeDecker Botanical Grant Research Projects

Four grantees will each present a short talk to update us on their projects. Zoom link TBA.

Other Events

Thursday, September 2, 5:30–6:30 p.m. Naturehood: Gardening in a Drought CNPS Webinar

How do you garden under extreme drought conditions? In this Native Garden Chat, we will discuss how to effectively maximize every drop of water you give to your garden. We will showcase California native dry gardens, inspiring you to slow down and relish California's "Fifth Season". The event is free, but please register here to be able to join live and ask questions:

https://bit.ly/naturehoodtalks

Saturday, September 4 Eastern Sierra Land Trust Self-guided Citizen Science BioBlitz using the iNaturalist app

Anyone in the Eastern Sierra Region can participate in this all-day event encouraging the public to help increase scientific knowledge of our local area. Make observations in your backyard, the local park, or your favorite trail! Upload your observations to the iNaturalist project: "2021 ESLT Bioblitz".

Attend the optional iNaturalist app virtual workshop beforehand on September 2nd from 6:00–7:00 p.m., which will be recorded if you miss it. For more details and the Zoom link to the workshop, go to: www.eslt.org/event/citizen-science-bioblitz/

Up-Coming Events

(For updated information, visit

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Saturday, September 4-Sunday, September 12 California Biodiversity Day 2021 **Event locations statewide**

California Biodiversity Day takes place on September 7th of each year, marking the anniversary of the launch of the California Biodiversity Initiative in 2018. This annual event celebrates our state's exceptional biodiversity, while also encouraging actions to protect it. This year, we are excited to have many partners joining us to host California Biodiversity Day events mainly from September 4 to September 12. Examples of events include a multiday self-guided bioblitz at Mono Lake and Zoom webinars on climate change and fires.

Please check out all the events near you to see how you can participate in celebrating California Biodiversity Day 2021! Visit the website https://resources.ca.gov/biodiversitvday2021.

Friday, September 24, 9:00-10:30 a.m. **Jeffrey Pine Trees Interpretive Hike in Lone Pine** with Kayla Browne

Learn about the gentle giant known as the Jeffrey Pine along this 2.4 mile hike. This out-and-back trek will start at the Meysan Lake trailhead (7,979-ft elevation) and join the Mt. Whitney National Recreation Trail. The hike will head uphill following Lone Pine Creek, gaining 325 ft in elevation. There's a limit of 12 participants, so RSVP today! https://friendsoftheinyo.org/event/jp-trees-w-kb-3/

Tuesday, October 5-Thursday, October 7 The Second Conference on the Research and **Management of High Elevation Five Needle Pines** in Western North America Virtual Conference

Scientists, management professionals and outdoor enthusiasts—join us in exploring the latest techniques, research findings and land management recommendations on High-Elevation Five-Needle Pine Ecosystems. Register at www.highfivepines.org

Up-Coming Events

(For updated information, visit www.bristleconecnps.org/events)

Saturday, October 26-Tuesday, October 29 Cal-IPC 30-Year Anniversary Symposium Online!

Connect with colleagues from across the state—and beyond—to get the latest updates on effective tools, relevant research, and strategic management approaches. Join for special session talks on invasive plant management to protect biodiversity in California and beyond, strengthening conservation by broadening community access, lessons learned from 30 years of invasive plant management, and new mapping tools to increase project effectiveness. Symposium features also include discussion groups, and posters covering a wide range of topics related to invasive plant biology and management.

Register now at

www.cal-ipc.org/resources/symposium/register/

Please send any submissions to us by October 15, 2020 for the next issue.

Bristlecone Chapter Directory

President: Kelly Bahr kbahr@cnps.org Vice President: Michèle Slaton vicepresident@bristleconecnps.org

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DeDecker Gardener: Kelly Bahr kbahr@cnps.org

Historian: **OPEN**

Mammoth Plant Sales: OPEN

Hospitality: **OPEN**

The California Native Plant Society

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Membership

The California Native Plant Society is an organization of laypersons and professionals united by an interest in the plants of California. It is open to all. The society, working through its local chapters, seeks to increase the understanding of California's native flora and to preserve this rich resource for future generations.

To join or renew online: Go to www.cnps.org and select JOIN/RENEW (at the top of the webpage or select it after clicking the menu button) or mail the form below:

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		California Native Plant Society, Attn: Membership
City:	_ State:	2707 K Street, Suite 1
Zip Code: Phone:		Sacramento, CA 95816
Email:		_
I wish to be affiliated with the Bristlecone Chapter:		Gift Contribution: Wherever needed _
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Membership Category _ Student / Fixed Income _ Individual _ Plant Lover _ Supporter _ Patron _ Benefactor	\$25 \$50 \$120 \$500 \$1,000 \$2,500	Go Perennial! To become a monthly sustaining (perennial) member, join or renew online at www.cnps.org/perennial
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