



## Bristlecone Chapter

*Dedicated to the Preservation of California Native Flora*  
**The California Native Plant Society**  
Bristlecone Chapter Newsletter

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**January–February 2023**

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### President's Message

Here we are together again in a New Year and fresh winter season. For me, winter is the time to reacquaint myself with the desert and mountains to the east. What a delight to be back out there in the immeasurable solitude and stark beauty of that rugged region, where I feel the greatest sense of peace and wonder. Not only are they amazing places for hiking, the lower elevations also exhibit the lovely native flora in winter. Some of my favorites include the strikingly colorful cottontop cactus, the creosote bushes (incredibly green this year), and the glowing golden and red spiny hopsage. There's always something remarkable to discover.

Lately I've been sorting through the thousands of photos I took in 2022, reminiscing about the wild places I visited and the flora and fauna I encountered. I stumbled across some photos from the DeDecker Garden this past summer. Arriving to work at the garden after a 2-week interval, I discovered an unfamiliar tall, lacy, fragile-looking annual growing vigorously throughout the entire area. It was so prolific that I thought it might be a weed. After failing to make an identification using books, the internet, and sharing photos, I pulled a few plants, but then decided to wait. Bristlecone chapter secretary and botanist Kathleen Nelson kindly came out, toured the garden with me and identified the plant.

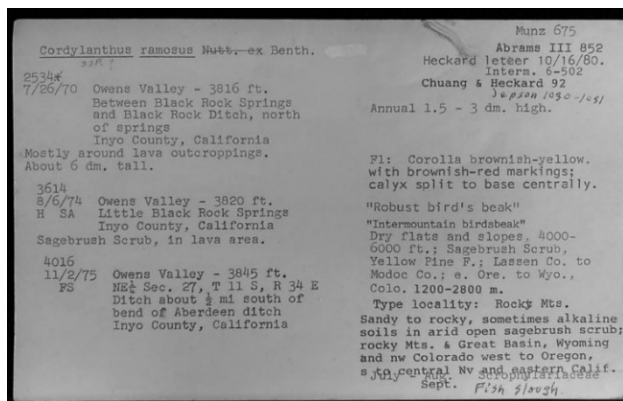
"Bushy bird's beak" is the common name of the forb or *Cordylanthus ramosus*. Native to the western United States, in our chapter area, this late season annual grows in rocky to alkaline soils in sagebrush scrub. The plant seems to grow in different forms—some tall and slender, others bushy and much like rubber rabbitbrush in appearance. They bear subtle yellow bird's beak shaped flowers in late summer. While perhaps not the most charismatic of plants, I was thrilled to learn about and acknowledge their presence in the garden. It was also a fun opportunity for some education as I found the herb

described in Calflora and in one of Mary DeDecker's plant cards (courtesy of the Eastern California Museum).



*Cordylanthus ramosus* at the DeDecker garden this year. Top left is close-up of flowers, bottom left is plants of a tall spindly habit and right is an individual of the bushy habit in front of sagebrush. Photos by Kelly Bahr.

As author and naturalist Diane Ackerman poetically reminds us, "Wonder is the heaviest element on the periodic table. Even a tiny fleck of it stops time." The bushy bird's beak narrative is just one of many other "vignettes of wonder" as I like to think of them. These seemingly insignificant moments are often what I remember with the most clarity. Perhaps it's the way in which a single twisted bush highlighted by the evening sun, grows across the desert pebbles. Or maybe it's the pattern in which the roots of a bristlecone pine radiate away from the base, disappearing and then reappearing again from the dolomite sand. I hope this finds you exploring in whatever way inspires wonder in you—whether it's snow play, a botanical adventure, or reading a captivating book.



The front side of Mary DeDecker's plant card for the *Cordylanthus ramosus*. Photos by Kelly Bahr.

I also hope you appreciate the newsletter and all the important information and work shared by the volunteer plant-loving writers that give their time and energy to help native plants and inspire us!

—Kelly Bahr

## General Meeting, HYBRID Wednesday, January 25, 2023, 7 pm White Mountain Research Center, 3000 E. Line St.

Speaker Yana Valachovic will present on fire and home defensible spaces. She is a California registered professional forester and forest scientist whose skills and interests cover a broad set of natural resource fields. She has worked as an extension agent at the University of California since 2000. Yana works at many scales and is a leader in developing and delivering local and state strategies to improve wildfire resilience. In her role, she is active in California policy development and has been a technical resource for bioenergy, forest management, home hardening, and improvements to defensible space legislation.

Join in person at the Owens Valley Station or by Zoom:  
<https://cnps-org.zoom.us/j/82986859569?pwd=TjRNZWxyUWtXU0xKK0M3ZmlaRVduZz09>  
Meeting ID: 829 8685 9569  
Passcode: 160922

## Conservation Updates

### New listings under the federal Endangered Species Act

On December 14, 2022, the US Fish and Wildlife (USFWS) announced that two very different species

in our region—whitebark pine (*Pinus albicaulis*) and Tiehm's buckwheat (*Eriogonum tiehmi*)—will receive protection under the federal Endangered Species Act.

**Tiehm's buckwheat (*Eriogonum tiehmi*)** is an extremely rare perennial herb that occupies just 10 acres in the Silver Peak Range in Esmeralda County, NV. Tiehm's buckwheat is restricted to specialized soils and has been found nowhere else despite many thorough surveys. These specialized soils contain lithium and in 2020, a lithium mining proposal was submitted that would destroy over half the global population of Tiehm's buckwheat and remove 30% of its total habitat, according to the USFWS. In addition to mining, the rare buckwheat is threatened by OHV use, grazing, invasive plant species, and herbivory.

Due to these threats, and in response to a petition submitted by the Center for Biological Diversity, the USFWS listed Tiehm's buckwheat as Endangered. The USFWS also designated 910 acres of critical habitat, essentially a 500-meter buffer around all existing plants. Habitat protection is especially important for this species which so far, has responded poorly to translocation.

Unlike Tiehm's buckwheat, **whitebark pine (*Pinus albicaulis*)** has a broad range and occupies over 80 million acres in North America. Unfortunately, this high-elevation keystone species is suffering rapid declines throughout its range. In California, the main threats to whitebark pine are white pine blister rust, mountain pine beetle, climate change, fire, and drought. The Sierra Nevada is home to the majority of California's whitebark pine and it is likely many of our members have observed, or perhaps researched, declines in our chapter area. Fortunately, the listing of the whitebark pine as Threatened by the USFWS will lead to a recovery plan that offers hope for the species' continued existence.

### Public scoping begins for lithium-boron mining in Silver Peak Range

On December 20th, the Bureau of Land Management (BLM) announced the start of a 30-day scoping period to begin the environmental permitting process for proposed mining in the Silver Peak Range. The plan area consists of 7,166 acres and as described above, includes the entire global population of Tiehm's buckwheat. Your input can have a great impact on the issues that BLM will consider in their forthcoming environmental analysis. You can read more about the proposal and submit public comment

here: <https://eplanning.blm.gov/eplanning-ui/project/2012309/510>. Comments are due January 20, 2023.

—Maria Jesus

## Eastern Sierra Herbaria on the Digitization Track!

You may not be aware that the Inyo National Forest (INF) and Bishop Field Office of the Bureau of Land Management (BIBLM) both maintain regional herbaria at the Supervisors Office in Bishop, CA. These relatively small collections, numbering fewer than 6000 specimens total, stoically preserve the flora of the rugged surrounding landscape of the Eastern Sierra, Owens Valley, White Mountains, and Death Valley.

Until recently, the only way to utilize the specimens was to physically visit and handle them at the office in Bishop. The majority of the INF collection was not even databased; like a library without a card catalogue, there was no way to know what it contained without sorting through stacks of specimens. Label transcription from the specimens was ongoing but progressing slowly.



Volunteers Kathleen Nelson, Corie Cann (top) and Sue Weis (bottom) image specimens during a 3-day imaging blitz in February 2022. Top photo by Katie Pearson and bottom photo by Blake Engelhardt.

Fast forward to 2022, COVID, and the era of all things virtual. The California Phenology Network (CPN, [www.capturingcaliforniasflowers.org/](http://www.capturingcaliforniasflowers.org/)) has been leading an effort across the state of California to digitally document herbarium specimens. In March 2022, CPN members from the Cal Poly SLO Herbarium lent the INF and BIBLM their mobile imaging equipment, and in a brief trip to Bishop, trained their staff and volunteers in the digitization process. Over the course of only a few short weeks, INF and BIBLM took high quality images of their entire collections with a portable lightbox and digital camera...and a lot of help from volunteers, including CNPS board members and retired INF botanists, Kathleen Nelson and Sue Weis.

Once the imaging was complete, the photographs were post-processed and uploaded to the Consortium of California Herbaria (CCH2) web portal ([www.cch2.org/portal/](http://www.cch2.org/portal/)). The equipment was also handed off to Death Valley National Park and their entire collection of ~3500 specimens has since been imaged. About half of the INF collection ([www.cch2.org/portal/collections/misc/collprofiles.php?collid=55](http://www.cch2.org/portal/collections/misc/collprofiles.php?collid=55)) now has complete label data transcribed; much progress was made by a virtual intern during the summer of 2022 (see article below) as well as by the forest service botany techs in the fall of 2022. The Bishop BLM and Death Valley NP specimen images and label data are expected to be uploaded this winter.



Specimen image of *Linthus aureus* (Polemoniaceae) collected by INF Botanist Brian Miller in 1991 (INF collections).

There is still more work to be done, and digitization makes it easy for interested citizen scientists to help! Label transcription and georeferencing from the images can now be completed by anyone, living anywhere, thanks to the accessibility of the internet. You can help transcribe the remaining 2300 specimen labels from the Inyo NF at the online portal, *Notes from Nature*. Visit the Capturing California's Wildflowers project for step-by-step instructions ([www.zooniverse.org/projects/md68135/notes-from-nature-capturing-californias-flowers](http://www.zooniverse.org/projects/md68135/notes-from-nature-capturing-californias-flowers)), and help us complete this important effort! Alternatively, reach out to Inyo NF botanist, Blake Engelhardt, at [blake.engelhardt@usda.gov](mailto:blake.engelhardt@usda.gov) for more information if you would like to get involved!

—Blake Engelhardt

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## Virtual Intern Contributes to Digitization Efforts

Hello, I am Bridget Lee, a recent graduate from the botany program at California Polytechnic State University San Luis Obispo. This past summer, I worked for the Inyo National Forest as a virtual intern from June to September, entirely from my home in Orange County in southern California. My experience working at the Cal Poly SLO Herbarium when I was a student helped me greatly during this internship. My main project was to transcribe the specimens that were imaged into the Inyo National Forest CCH2 database.



Virtual intern Bridget Lee worked remotely over the summer to help transcribe Inyo National Forest specimen labels. Photo provided by Bridget Lee.

CCH2, or the Consortium of California Herbaria ([www.cch2.org/portal/index.php](http://www.cch2.org/portal/index.php)), is a website that contains millions of herbarium records from

museums, botanical gardens, academic institutions, and public agencies. These records are not limited to California native plants, as there are many specimens collected from neighboring states and even other countries. My work included typing verbatim each section of the specimen label to preserve the accuracy of the information, categorizing the label information into specific categories (such as scientific name, location, and habitat) and thoroughly checking information, such as the collection date and the coordinates. This work is important as transcribing label data allows old botanical information to be properly preserved; this information can later be used to understand the flora of the area the plants were collected from.

There are around 4400 records total within the Inyo National Forest Herbarium; many specimens are plants native to the Inyo National Forest, but there are also numerous specimens that were collected from neighboring counties such as Esmeralda County in Nevada. I transcribed labels for roughly 750 total specimens and found many interesting records such as specimens with handwritten labels, interesting plants such as *Orobanche fasciculata* (a root parasite that feeds off of plants from the genus *Artemisia*), and specimens with very old collection dates. Most records were from 50 to 70 years ago (1950's – 1970's) and the oldest record was from August 15, 1910! Many records were created by expert local botanists, such as Mary Dedecker, James Morefield, Michèle Slaton, and many more. During my internship, I was able to attend virtual staff meetings to learn more about the work of national forest botanists. I also trained the Inyo NF botany technicians on how to transcribe label data in CCH2.

Transcribing label data is important to botanical sciences as the information on an Herbarium label can be used in research studies of climate change and its effects on plant phenology. Tutorials on utilizing CCH2 are on the website under Help & Resources; this information is free to the public and accessible online by anyone and from anywhere. I encourage you to check out this resource and aid in the great efforts to digitize Herbaria collections throughout California.

—Bridget Lee

*The virtual intern program is hosted by the non-profit organization MobilizeGreen, with financial support provided by the USDA Forest Service, Pacific Southwest Region.*

## Mary DeDecker Botanical Grant

The Bristlecone Chapter of the California Native Plant Society is pleased to request applications for the Mary DeDecker Botanical Grant. This small-grants program is named in memory of a local botanist renowned for her many contributions to the botany and history of the Eastern Sierra Nevada and northern Mojave Desert.



Bristlecone Chapter

Our goal is to promote research and projects that increase understanding and appreciation of native plants and ecosystems in the Bristlecone Chapter area. Anyone may apply, but we are especially interested in helping graduate and undergraduate college students as well as elementary, middle, and high school pupils and their teachers. The only requirement is that the project include studies within the Bristlecone Chapter area—generally defined as Inyo and Mono Counties but including adjacent biogeographic areas of the northern Mojave Desert, Sierra Nevada, or western Great Basin. Subjects appropriate for funding cover a wide range, from basic taxonomic or ecological research to native plant gardens. The committee evaluates applications based on the extent to which the proposed project is specific to our regional flora, fills information gaps, and contributes to public awareness of native flora. We seek well-organized proposals that demonstrate a clear objective and a pathway to achieve success.

The program will award grants of up to \$1,000 each. Proposals exceeding \$1,000 may still be considered, contingent on chapter funding and project justification; in such cases, applicants are advised to develop their project acknowledging that only \$1,000 or less may be available, and line-item the budget accordingly.

### Criteria and Procedures

Submit written proposals to the Mary DeDecker Grant Committee. Each should contain 1) title, 2) objectives, 3) methods, 4) expected final product, 5) relevance to chapter area (at least part of the project should be conducted in Inyo or Mono Counties), 6) proposed budget, 7) permitting plans for collection and research from relevant land managers, and 8) applicant's resume. Student proposals must include a letter of support from their adviser or teacher. Electronic files may be in Word or pdf format, and should be named using the format: LastNameFirstName\_2023application (or \_2023letter). Proposals should not exceed three pages in length, excluding resume. **The deadline for complete proposal packages is January 20, 2023.** All applicants will be notified of the committee's decision by **early March, 2023.**

A progress report explaining how Bristlecone Chapter funds were used is due at the end of the calendar year. Applicants are encouraged to give a talk about their project at a chapter evening meeting and/or to write a brief explanation of their work for the Bristlecone Chapter newsletter.

### Send proposals or requests for information to:

[grants@bristleconecnps.org](mailto:grants@bristleconecnps.org) (electronic submissions are preferred but not required)

OR:

Kathleen Nelson  
Mary DeDecker Grant Committee Chair  
P. O. Box 364  
Bishop, CA 93514

*You can find more information about the Bristlecone Chapter Grants Program, including this Request for Proposals, at <http://bristleconecnps.org/dedecker/grant/>*

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## Botany Conferences



*Nemacladis inyoensis*. Photo by Steve Matson.

Numerous botany get-togethers occur locally to worldwide. There are regional ones like the Northern California Botanists Symposium which usually occur in January in Chico or the Southern California Botanists Symposium which

usually occur in November in Claremont. There are also state-wide conferences hosted by CNPS which usually occur every three years at different locations around the state. The Botanical Society of America has a yearly conference at locations around the country, such as Anchorage this year (2022) and Boise next year (2023). The International Botanical Congress has conferences usually every six years with the next one in Madrid in 2024, so plan ahead!

I usually attend the Norcal Symposium and have attended the last three CNPS conferences. The most recent of these was in October of this year in San Jose. Most participants stay at this big hotel/convention center and mingle with 1200 other plant enthusiasts. From the Bristlecone Chapter Michele Slaton, Blake Engelhardt, Ann Howald, and Jora Fogg and I attended (apologies if I left someone out).

There are always whole conference events and speeches, but mostly smaller venue talks where speakers discuss their research or other work. Ann Howald and I split a session discussing new discoveries in Mono and Inyo Counties. Ann talked a bit about her discovery of *Erythranthe howaldii*, a new monkey flower from the east side of Sonora Pass. I talked mostly about the discovery of *Nemacladis inyoensis*. Jora gave a talk about conservation efforts on Conglomerate Mesa. Blake spoke about the digitization of herbarium specimens for Inyo National Forest Herbarium and Bishop BLM herbarium. Michele co-chaired a vegetation mapping and monitoring session.

To recap my own talk, the *N. inyoensis* discovery was a process that began during a 2010 Bristlecone Chapter field trip to Badger Flat in the Inyo Mountains lead by Kathleen Nelson. I happened to

notice this tiny *Nemacladus* plant emerging from this gravelly substrate, only about an inch or so tall. I photographed it and collected some with Kathleen's help. I sent the collection to Nancy Morin, the current expert on *Nemacladus* in the US. It matched nothing I could find in the literature. I believe she did think this might be something new, but the discovery did not become official until we (thanks to sharp-eyed seasonal botanist for Inyo N.F., Martin Purdy) found the plant again in May of 2019 along the Harkless Flat Road in the northern Inyo Mountains. Nancy asked me to collect the type specimens at that time, and her treatment of many new *Nemacladus* taxa appeared in the journal *Madroño* in April 2020.

—Steve Matson

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## Garden Updates

All is pretty quiet at the greenhouse this time of year, the plants that are still left have gone dormant and I hope the bugs that were a problem have all been frozen by now. The Columbine seeds that I planted in October are finally starting to sprout. I am doing some experiments with seeding some plants now to see how they do. Next year I plan on covering the penstemons right away with row cover to keep out the lace bugs and hopefully have more healthy plants. I had to throw away over 300 plants last year because of those bugs!



Visiting AmeriCorps and local CNPS volunteers removed loads of leaves from the White Mountain Research Center's Owens Valley Station (12/13/2022). Photo by K. Quinlan.

On December 13th we had an AmeriCorps crew of 8 people and 4 CNPS volunteers work for a day out at the station to clean up the fallen leaves (that are a fire hazard). It took 51 volunteer hours, 3 dumpsters and 8 pickup truck loads of leaves to clean up the entire station. It was a great day; sunny, calm, and the rain had made sure there was no dust. All of us who work at the station had big smiles on our faces by the end of the day after all that work was done!

—Katie Quinlan

## Up-Coming Events

(For updated information, visit [www.bristleconecnps.org/events](http://www.bristleconecnps.org/events))

**Wednesday, January 18, 6:00 pm**

### **Bristlecone Chapter Board Meeting (Zoom)**

All members are welcome. Contact our Secretary, Kathleen Nelson, at [secretary@bristleconecnps.org](mailto:secretary@bristleconecnps.org) for the Zoom link.

**Friday, January 20**

### **Mary DeDecker Botanical Grant Deadline**

Send proposals or requests for information to [grants@bristleconecnps.org](mailto:grants@bristleconecnps.org) (electronic submissions are preferred but not required) or to

Kathleen Nelson

Mary DeDecker Grant Committee Chair

P. O. Box 364

Bishop, CA 93514

More information at

<http://bristleconecnps.org/dedecker/grant/>

**Saturday, January 21**

### **Community Garden Native Plot, Bishop City Park**

Starting this month, join Sue Weis every third Saturday, 9:00 am, to help out in our plot of native plants in the Community Garden. Workdays will be canceled if raining or snowing. Questions? Contact [sue.weis98@gmail.com](mailto:sue.weis98@gmail.com)

**Wednesday, January 25, 7:00 pm**

### **Bristlecone Chapter General Hybrid Meeting White Mountain Research Center, 3000 E. Line St.**

Yana Valachovic, UCCE forest Advisor, speaks on home hardening in response to potential fires. See page 2 for Zoom link.

## Up-Coming Events

(For updated information, visit [www.bristleconecnps.org/events](http://www.bristleconecnps.org/events))

**Friday, March 31 — Sunday, April 2**

### **Maturango Museum's Annual Wildflower Exhibit**

100 E. Las Flores Ave., Ridgecrest

The exhibit showcases the wildflowers that grow in the watershed area of the Indian Wells Valley. This watershed area includes canyons as far north as Fossil Falls and as far south as Horse Canyon. Volunteers spend a day in late March combing a specific area for the plants that are growing and blooming. We will also feature presentations by students connected to the California Botanic Garden. The students will give presentations on their areas of study (topics and times have yet to be determined). More information about the Wildflower Exhibit and presentations will be in the March/April newsletter.

The Maturango Museum hours are from 10:00 am to 5:00 pm daily. Website is [www.maturango.org](http://www.maturango.org) and phone number is (760) 375-6900.

**Please send your articles and other information to us by February 15, 2023 for the next issue.**

### **Bristlecone Chapter Directory**

President: Kelly Bahr [kbahr@cnps.org](mailto:kbahr@cnps.org)

Vice President: **OPEN**

Secretary: Kathleen Nelson [secretary@bristleconecnps.org](mailto:secretary@bristleconecnps.org)

Treasurer: Sue Weis [treasurer@bristleconecnps.org](mailto:treasurer@bristleconecnps.org)

Chapter Council Delegate: Stephen Ingram

[stephen@ingramphoto.com](mailto:stephen@ingramphoto.com)

Conservation/Partnerships: **OPEN**

Education: **OPEN**

Programs: Michèle Slaton [vicepresident@bristleconecnps.org](mailto:vicepresident@bristleconecnps.org)

DeDecker Grants: Kathleen Nelson

[secretary@bristleconecnps.org](mailto:secretary@bristleconecnps.org)

Field Trips: Sue Weis [treasurer@bristleconecnps.org](mailto:treasurer@bristleconecnps.org)

Bishop Plant Sales: Katie Quinlan

[plant\\_sale@bristleconecnps.org](mailto:plant_sale@bristleconecnps.org)

Publicity: Gaylene Kinzy [gkinzyreische@gmail.com](mailto:gkinzyreische@gmail.com)

Newsletter: Elaine Chow [newsletter@bristleconecnps.org](mailto:newsletter@bristleconecnps.org)

Membership: Sue Carter [membership@bristleconecnps.org](mailto:membership@bristleconecnps.org)

Website: Maggie Riley [webmaster@bristleconecnps.org](mailto:webmaster@bristleconecnps.org)

T-shirt Sales: Katie Quinlan [plant\\_sale@bristleconecnps.org](mailto:plant_sale@bristleconecnps.org)

DeDecker Gardener: Kelly Bahr [kbahr@cnps.org](mailto:kbahr@cnps.org)

## The California Native Plant Society

Bristlecone Chapter

P.O. Box 364

Bishop, CA 93515-0364

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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](http://www.cnps.org) and click on the JOIN/renew button at the top of the page, or mail in the form below:

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I wish to be affiliated with the Bristlecone Chapter: \_\_\_\_\_

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