



Bristlecone Chapter

Dedicated to the Preservation of California Native Flora

The California Native Plant Society

Bristlecone Chapter Newsletter

Volume 45, No. 2
March–April 2024

March General Meeting
Wednesday, May 27th, 7:00 p.m.
White Mountain Research Center
3000 E. Line St, Bishop

 **Speaker: Katie Quinlan**
Considerations When Planning a Native Plant Garden



Katie Quinlan and other volunteers at the 2013 Dedecker fall cleanup.

Katie has been the director of the Native Plant Propagation Center since 2009. She has been an avid gardener since childhood but didn't start gardening with natives until she was given the job at the propagation center. Over the last 15 years she has converted much of her own garden to native landscapes and has learned a lot from mistakes made along the way.

When planning a native garden there are many elements to think about: how tall will the plants grow, which plants tolerate shade or need full sun, which plants would be good along a path, which ones

need space where they can spread, and what is the best way to water and how often?

Katie will address how to prep a site, including removing grass, before you start planting as well as fire considerations when planting.

California Native Seed Strategy

Native plants are gaining new ground, federally, statewide, and locally as demands for native plant stocks grow for restoration work after wildfires, flooding, and drought; for land management; and for nurseries selling to local communities. So the California Native Plant Society is announcing the new California Native Seed Strategy (CNSS), following the Federal unveiling of the National Seed Strategy Keystone Initiative early last month. The Initiative is a part of the Biden Administration's Investing in America agenda. Secretary of the Interior Deb Haaland announced that this initiative is a new addition to a \$2 billion 5-year plan to restore degraded lands and waters and address potential impacts of climate change

(<http://tinyurl.com/NationalSeedStrategy>). The intention of this seed initiative is to put \$18 million into improving the supply chain of locally-sourced native seed for local restoration projects and to build upon the restoration work already carried out through the Bureau of Land Management (<http://tinyurl.com/BLMstorymap>). This also includes investing in more collaborations with other agencies and partners, motivating local farmers to replace high-water-use crops with low-water-use native plant crops, and supporting more Tribal greenhouse facilities.

The CNSS is a collaborative product developed with guidance from an expert group of government and nonprofit advisors who form the California Seed Strategy Steering Committee. They modeled the CNSS

after the National Native Seed Strategy and the Nevada Seed Strategy to address the policies, funding, capacity, collaboration, science, and technology needed to improve our supply and use of native seeds in rehabilitating and maintaining California's ecosystem health.

The CNSS has four main goals to increase the production and availability of native seed:

1. Identify native seed needs and ensure the reliability of genetically appropriate seed
2. Improve guidelines and identify research needs for native seed production and use
3. Develop tools that enable native seed producers and users to make timely, informed decisions
4. Develop strategies and tools for communication



Ultimately, these strategies and initiatives are about putting the right seed in the right place at the right time. And doing so calls for all of us to take part by supporting the agencies, non-profits, Tribes, and industry partners; participating/volunteering in any steps of work involved; and increasing awareness on the importance of locally-adapted native seed in ecological restoration. Learn more about the CNSS here <https://bit.ly/30696u4>.

—Elaine Chow

127-year-old Herbarium Specimen Reveals State Record in Bishop, CA

Careful review of historical herbarium specimens has revealed a new species for the state of California. In 2016, LeRoy Gross of California Botanic Garden noted two misidentified *Cryptantha* (catseye) specimens that he identified as *Cryptantha crassisejala* var. *elanantha* (thicksepal cryptantha). The two specimens were collected by Marcus E. Jones in 1897. One specimen was collected in Bishop, CA and the other is presumed to be from Lassen County. The recent identifications of these two *Cryptantha crassisejala* var. *elanantha* collections were verified

by Michael Simpson of San Diego State University who is an expert in the genus and relatives. In a 2023 *Madrono* article, Simpson and Gross note that this taxon will be added to the Jepson eflora and recommends that it be given a rare plant rank of 2B.1, indicating the taxon is rare and threatened in California, but more common elsewhere.

It is possible that some of us may have unknowingly seen or even photographed this species. According to Simpson and Gross, the closest relative occurring in California is the rare *Cryptantha fendleri* (sand dune cryptantha), which shares a similar trait of "sepals with thickened, indurate, hirsute midribs." The 1897 Jones specimen was previously misidentified to *C. utahensis* (scented cryptantha) and other specimens of *C. crassisejala* have been misidentified as *C. nevadensis* (Nevada cryptantha). So it seems there is at least some superficial similarity to these more common species. As with many species in this group, it is crucial to examine mature nutlets to make a confident identification. Images and a thorough description of key characters can be found in the *Madrono* article at <https://doi.org/10.3120/0024-9637-70.1.4> and on Simpson's excellent website: https://plants.sdsu.edu/cryptantha/taxa/C_crassisejala/v_elachantha/.

It is unclear where exactly in Bishop Marcus E. Jones made his collection of *C. crassisejala* in 1897 and whether the species still exists in the area given all the development that has taken place. However, based on other collections from the same day, it appears Jones may have ventured towards the base of the White Mountains where species like *Caulanthus glaucus* (glaucus wild cabbage), *Cymopterus aboriginum* (Indian springparsley), *Penstemon monoensis* (Mono penstemon) are commonly found today. Many of Jones' collections were made quite a distance from the locality written on the label, according to Jerry Tiehm, herbarium curator at the University of Nevada, Reno. Additionally, Tiehm reminded me that Jones often traveled by train, and I have a hunch that he may have set out from Laws. On the other hand, as Gross suggested to me, it is possible that the railway served as a vector and Jones' two collections were waifs. Either way, this plant seems worthy of a search effort so keep an eye out for a field trip the next time we have good spring conditions!

—Maria Jesus

2023 DeDecker Grantees, Progress Reports

 Peri Lee Pipken, California Botanic Garden
Master's Student
A floristic inventory of the Silver Peak Range

2023 was a spectacular season in the Silver Peak Range, a geologically colorful mountain range adjacent to the White Mountains in Esmeralda County, Nevada. The area saw record-breaking precipitation this past year and created prime conditions for floristic documentation. In 2023, over 150 new taxa were added to the checklist for the Silver Peak Range, including two Nevada state records and over 25 county records. Exciting finds included *Tonestus graniticus* (Granite serpentweed, G1,S1), a single-site endemic no longer known for a single site, a rare and threatened astragalus, *Astragalus lentiginosus* var. *sesquimetralsis* (Sodaville milkvetch, 1B.1), a rare and hard-to-spot cactus, *Sclerocactus nyensis* (Nye county fishhook cactus, G1,S1), the sand-dune loving *Oryctes nevadensis* (Nevada oryctes 2B.1, G3) and a previously California endemic, *Nemacladus inyoensis* (Badger Flat thread plant, 1B.2).



Top left, *Tonestus graniticus*, top right, *Sclerocactus nyensis*, and bottom, *Oryctes nevadensis*.

In addition to more extensive botanical documentation in this area, this field season additionally allowed for six interns to apprentice for two weeks as field botanists with me. During this

time, skills pertaining to botanical collecting, field ID, backcountry camping, and team building were developed, followed by a week-long rotation in various departments at the California Botanic Garden. Inspiring the next generation of botanists is an incredibly important element of plant conservation, and without the support and funding of organizations such as the CNPS Bristlecone chapter, this work would not have been possible.



Interns around *Lupinus uncialis*. Photos by Peri Lee Pipken.

The Silver Peak Range is a unique and diverse place at the intersections of the Mojave and Great Basin deserts. It's home to rare and endemic plants and animals that face extreme existential pressure from looming industrial mining and other green energy development. This unique intact ecosystem will be lost if unfettered industry is allowed to develop the sensitive habitats of the region. This floristic inventory of the Silver Peak Range will help conservationists and botanists work to protect the unique flora of this area. A third, brief field season is planned for 2024—if you would like to come on any collecting trips, please feel free to reach out!

 Kimberly Schaefer, California Botanic Garden
Master's Student
A Vascular Flora of the Sacatar Trail Wilderness

The 2023 CNPS Bristlecone DeDecker Botanical Grant helped to cover most of my travel expenses for field work this past year. I made a total of 14 trips and spent 43 days in the field, yielding 673 new plant collections. Most of these collections were made in places I did not collect from in 2022, helping to better represent the flora of my study site as a whole, and

facilitating greater coverage of sampling across the entire area.

Precipitation during this second field season could Canyon RAWS (remote automatic weather station)¹, near the Sacatar Trail Wilderness eastern boundary, recorded only 2.24 inches of rain in 2022, compared to 14.65 inches in 2023. The Southern Sierra region as a whole received approximately twice as much precipitation last winter compared to the average rainy season.² Below-average temperatures brought snow down to the lower end of the study site (~4,000 ft. elevation) in February and March (see Fig. 1A), and larger quantities of snow at the high elevation melted into flowing streams in canyons that were bone-dry in 2022. These “new” streams persisted well into the summer months. Annual plants germinated and flowered prolifically in 2023, producing “superbloom” landscapes in the desert as well as in the mountains (Fig. 1B).



Figure 1: Examples of how above-average precipitation early in the year transformed the Sacatar Trail Wilderness. A) Top: Snow in Nine Mile Canyon, March 2023. B) Bottom: Montane monkeyflower “superbloom” with *Erythranthe barbata* (yellow) and *Diplacus* sp. (pink), in June.

At least 91 minimum rank taxa were collected in 2023 that were not seen during the 2022 field season. I believe several of these new discoveries may be attributed to the increased precipitation, yielding greater seed germination and plant health. I documented the first population of Dedecker’s clover, *Trifolium dedeckerae*, within the Sacatar Trail Wilderness (CNPS rank 1B.3), as well as the first population of Chimney Creek nemacladus, *Nemacladus calcaratus* (1B.2), in Inyo County (Fig. 2). Several new populations of Nine Mile Canyon phacelia, *lia novemmillensis* (1B.2) were encountered as well. After discovering an extensive population of Kern bird’s beak, *Cordylanthus eremicus* ssp. *kernensis* (1B.3), I was able to make a conservation seed collection, now stored at the California Seed Bank in Claremont (part of the California Botanic Garden).



Figure 2: Notable rare species added to Sacatar Trail Wilderness checklist in 2023. A) Top: First Chimney Creek nemacladus, *Nemacladus calcaratus* (rank 1B.2), found in Inyo County. B) Bottom: Dedecker’s clover, *Trifolium dedeckerae* (rank 1B.3). Photos by Kimberly Schaefer.

Twelve iButton temperature data loggers³ were installed in March 2022 along two east-to-west transects at 1,000-foot intervals of elevation. These were intended to help analyze the degree to which temperatures vary between altitudes across the study area, leading to a better understanding of microclimate variability. All twelve iButtons were retrieved during August and September 2023. I am currently uploading and analyzing this temperature data to help visualize microclimate variation within the site. Vegetation surveys were conducted at each of these temperature-monitoring points to represent vegetation patterns along the Sacatar Trail Wilderness area's steep elevation gradient.

I am incredibly grateful to have been awarded the DeDecker Grant in 2023, as well as in 2022. As some may know, I withstood some serious injuries during a climbing accident back in September, but luckily my fieldwork was wrapped up at that point. Despite this setback in the fall, I am getting back into keying my specimens and planning to defend my master's thesis later this year. I will also be giving a talk about my project at the annual Wildflower Exhibit at the Maturango Museum in Ridgecrest this April, and I would love another chance to present at a CNPS Bristlecone Chapter meeting sometime soon. I am so excited to share everything I have learned from my research!

1. S. California RAWS Sites, Western Regional Climate Center, 2024, raws.dri.edu/wraws/scaF.html.
2. California Department of Water Resources, 2023, Water Year 2023: Weather Whiplash, From Drought To Deluge, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Water-Basics/Drought/Files/Publications-And-Reports/Water-Year-2023-wrap-up-brochure_01.pdf.
3. Temperature Logging iButtons, iButtonLink, 2024, www.ibuttonlink.com/collections/thermochron.

Plant Restoration at Work

At the Deepest Valley Native Plant Propagation Center, not only are plants grown for the CNPS native plant sale but also for restoration projects.

Recently, the Bishop Bureau of Land Management Field Office planted sagebrush and grasses in the old burn scar at the base of Granite Mountains near Mono Lake. This burn scar has experienced little to no recovery in the past 10 years due to sandy soils and high winds. Taking a different approach, experimental fencing was installed for wind erosion

control, promoting soil stabilization, providing plant shelter, and creating new islands of vegetation.

This restoration project used native plants grown from locally collected seeds that were then grown at the propagation center.

—Katie Quinlan



BLM restoration work at Granite Mountains. Top: workers plant native grasses and sagebrush within erosion-control fencing. Bottom: sagebrush established in the sandy soils of a burn scar. Photos courtesy of Katie Quinlan.

Maturango Museum Wildflower Exhibit Friday April 5th to Sunday April 7th 10 am to 5 pm, Admission \$2.00

Every spring the Maturango Museum hosts the annual Wildflower Exhibit during which visitors can see the wide variety and abundance of wildflowers that grow in the Indian Wells Valley and surrounding canyons. Collectors with the proper BLM permits spend multiple days gathering the wildflowers which are placed into bottles or vases then set onto tables according to their family. This allows visitors to have a close-up view of the many wildflowers from the

Indian Wells Valley & surrounding area—all in one room!

The exhibit features annual wildflowers and flowering shrubs. The annual wildflowers include species from the tiny white cryptantha (forget-me-nots), to the bright and showy coreopsis. Shrubs such as the creosote bush and desert senna are also on display. Each species is identified by a group of professional botanists and labeled with its common and scientific names.

In addition to seeing the wildflowers, the Maturango Museum has multiple speakers during this year's Wildflower Exhibit.

Friday, April 5th at 6:30 pm, local Glenn Harris will give a presentation on how plants changed or migrated since the ice age.

Saturday, April 6th, at 2:00 pm, Kimberly Schaefer, a master's student studying Botany at Claremont Graduate University and California Botanic Garden, will give a presentation on her study area—the Sacatar Trail Wilderness. The title of the presentation is, "A Vascular Flora of the Sacatar Trail Wilderness, Southern Sierra Nevada, CA."

Sunday, April 7th (TBD), Eugene Albitre will give a presentation on ethnobotany. His presentation is sponsored by the Arts Council of Kern.



Leptosyne bigelovii, a coreopsis endemic to California.
Photo courtesy of Elaine Wiley.

With the winter rains we have received thus far, this spring promises a colorful and fragrant display of wildflowers for this exhibit!

Maturango Museum is located at 100 E. Las Flores Ave., Ridgecrest, CA. For more information and times of presentations, see the Maturango Museum's website—www.Maturango.org or call 760-375-6900.

—Elaine Wiley

Friends of the Fish Slough

The newly formed Friends of Fish Slough (under the umbrella of Great Old Broads for Wilderness www.greatoldbroads.org/) had its first general meeting on March 6th in Bishop. The purpose of FOFS is to educate and advocate for this unique and beloved desert wetland, to be a big and passionate voice when one is needed, and to serve when and how we can. If you are interested in learning more about the group, contact janetrbarth@gmail.com.

—Friends of Fish Slough

Up-Coming Events

Chapter Events

Wednesday, March 13, 6:00 pm
Chapter Board Meeting (Virtual)

All members are welcome to join. Contact our Secretary, Kathleen Nelson, at secretary@bristleconecnps.org for the Zoom link.

Saturday, March 16, 9:00 am
CNPS Garden Plot Work Day
Bishop Community Demonstration Garden
Bishop City Park, 688 N. Main St.

Join Sue Weis on the third Saturday of each month, starting at 9:00 am, to work in our plot of native plants. Workdays will be canceled if raining. If you plan to help out, do contact Sue beforehand. sue.weis98@gmail.com

Wednesday, Mar 27, 7:00 pm
Chapter General Meeting
Please see details on page 1.

Up-Coming Events

Other Events

Friday–Sunday, April 5th–7th, 10:00 am–5:00 pm
Maturango Museum Wildflower Exhibit
100 E Las Flores Ave, Ridgecrest, CA
Information on page 6.

Saturday, April 13th, 9:00 am–12:00 pm
Pollinator Garden Workshop
Bishop Community Demonstration Garden
Bishop City Park, 688 N. Main St.

The Pollinator Garden Workshop is a free public event put on by the Eastern Sierra Land Trust. Come and learn about how to create your own pollinator-friendly garden from presentations on a variety of topics relating to creating pollinator-friendly habitat. Schedule of topics is available at: <https://eslt.org/event/pollinator-garden-workshop-2024/>. Space is limited, so please make sure to RSVP to gena@eslt.org if you wish to attend.

Saturday, May 4th 11:00 am–2:00 pm
GardenFest
Eastern Sierra Land Trust, office backyard
250 N. Fowler St., Bishop

This fun, family-friendly community event is a celebration of spring hosted by ESLT and includes Master Gardeners, Eastern Sierra Audubon, and CNPS. Purchase native plants, learn gardening tips and tricks, and enjoy local food and youth activities and more. Sign up for ESLT's Eastside Pollinator Garden Project, which helps local homeowners bring their gardens to life by attracting hummingbirds, butterflies, and other important pollinators.

Saturday, June 1st, TBA
Pollinator Garden Tours
Eastern Sierra Land Trust Office
250 N. Fowler St., Bishop

Locals across the Eastern Sierra have been hard at work creating beautiful native plant and pollinator gardens. Take the tour to learn more about and see examples of pollinator-friendly gardening. The tour begins at the ESLT office and then moves on to a lovely selection of local gardens in bloom.

Up-Coming Events

Saturday, August 17th, 9:00 am–11:00 am
Chapter Annual Plant Sale (IN-PERSON)
White Mountain Research Center
3000 E. Line St., Bishop

This is the largest native plant sale of the year. A wonderful array of native plants is offered every year. A variety of flowers, shrubs, and trees adapted to our area will be for sale. This year the sale is going back to an in-person only sale.

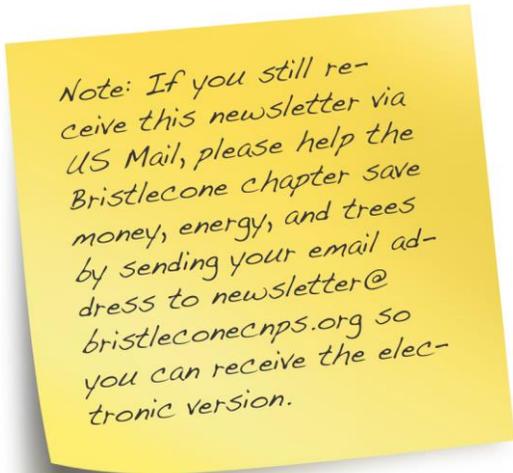
Please send submissions to us by April 15th, 2024 for the next issue.

Bristlecone Chapter Directory

President: **OPEN**
Vice President: **OPEN**
Secretary: Kathleen Nelson secretary@bristleconecnps.org
Treasurer: Sue Weis treasurer@bristleconecnps.org
Chapter Council Delegate: Stephen Ingram
stephen@ingramphoto.com
Conservation/Partnerships: **OPEN**
Education: **OPEN**
Programs: **OPEN**
DeDecker Grants: Kathleen Nelson
secretary@bristleconecnps.org
Field Trips: **OPEN**
Bishop Plant Sales: Katie Quinlan
plant_sale@bristleconecnps.org
Publicity: Gaylene Kinzy gkinzyreische@gmail.com
Newsletter: Elaine Chow newsletter@bristleconecnps.org
Membership: Sue Carter
membership@bristleconecnps.org
Website: **OPEN**
T-shirt Sales: Katie Quinlan
plant_sale@bristleconecnps.org
DeDecker Gardener: Kelly Bahr kbahr@cnps.org

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 click JOIN/RENEW (at the top-right or select it after clicking the menu button of the webpage) or mail the form below:

Name: _____
Address: _____
City: _____ **State:** _____
Zip Code: _____ **Phone:** _____
Email: _____
I wish to be affiliated with the Bristlecone Chapter: _____
Other: _____

Membership Type: ___ New Member
 ___ Renewal

Mail To / Make Payable To:
CNPS Membership Coordinator
2707 K Street, Suite 1
Sacramento, CA 95816

Membership Category

- ___ Student / Limited Income \$25
- ___ Individual \$50
- ___ Plant Lover \$120
- ___ Supporter \$500
- ___ Patron \$1,000
- ___ Benefactor \$2,500
- ___ Steward \$5,000
- ___ Guardian \$10,000
- ___ Additional Contribution _____

Gift Contribution: _____ Wherever needed
Specific Area: _____

Go Perennial! To become a monthly sustaining (perennial) member, join or renew online at www.cnps.org/perennial