

Dedicated to the Preservation of California Native Flora The California Native Plant Society

Bristlecone Chapter Newsletter

Volume 40, No. 1 January-February 2019

Bristlecone Chapter

President's Message, January 2019

Our CNPS Chapter is run by a group of amazing volunteers. These folks do a wonderful job of getting out the newsletter, arranging bi-monthly programs, and organizing special events such as the spring and fall plant sales, field trips and chapter council meetings. However, our current group of board members is maxed out with the amount of volunteer hours they can give. Our Chapter-elected officers have all been serving multiple terms, and in some cases, multiple positions. We have a critical need for a Secretary. The duties of the Secretary include attending five board meetings a year and writing up the minutes. For those who want to help protect the local flora, NOW IS THE TIME to step up and volunteer for this critical board position. The new board takes over at the February board meeting on February 6th. Contact Katie Quinlan at president@bristleconecnps.org if you are willing to fill this spot.

Our January general meeting is canceled. Please check our website next month for updates on a meeting in February with a speaker to be announced. Usually, we plan all of our field trips for the 2019 calendar year right before the January general meeting. However, this year we are asking anyone who has ideas for field trips or is interested in leading a trip to contact Sue Weis (760-873-3485). She'll need descriptions of trips from field trip leaders by January 31st.

--Katie Quinlan

Now Accepting Mary DeDecker **Botanical Grant Proposals Through January 18, 2019**

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.

Our goal is to promote research and projects that increase understanding and appreciation of native plants and ecosystems of the Eastern Sierra region. Anyone may apply for a grant, but we are especially interested in helping graduate and undergraduate college students as well as elementary, middle, and high school pupils and their teachers. Subjects appropriate for funding cover a wide range, from basic taxonomic or ecological research to school gardens featuring native plants and their pollinators. 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.

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 Invo or Mono Counties), 6) proposed budget, and 7) applicant's resume. Proposals should not exceed two pages in length, excluding resume. Student proposals must include a letter of support from their adviser or teacher. Deadline is January 18, 2019. All applicants will be notified of the committee's decision by early March, 2019.

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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 (electronic submissions
are preferred but not required)

OR:

Michèle Slaton 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/

Mary DeDecker Botanical Grant, 2018 Progress Report

Emily Brodie

University of California, Davis

The summer of 2018 was the first field season in a 2year project designed to answer the question: how does fire severity affect understory diversity and tree regeneration in subalpine forests of the Sierra



Emily considering an *Elymus* in the Palisade Fire (2002), Palisade Creek, Kings Canyon National Park.

Nevada? This study is the first to consider the effects of fire on biodiversity in our iconic subalpine forests and comes at a time when subalpine forests in the Sierra Nevada are experiencing climate-driven changes at an unprecedented scale. Densifying forest stands combined with a trend in increasing size and upper elevation of fire in the Sierra Nevada may contribute to larger and more severe fire events in subalpine forests in the near future.



A great vantage on the Willow Fire (2007) in foxtail pine forest, Sequoia National Park.

We sampled five fires in 2018 across a range of 2–16 years post-fire and in three different National Parks or Forests. We found that post-fire species richness (or total number of species) increased with fire severity and was greatest in stands that experienced >75% tree mortality by basal area. This



Using a basal area gauge to assess stand density in a burned foxtail pine forest in Sequoia National Park.



Measuring a pine seedling in the Big Five Fire (2014), Sequoia National Park. Photos courtesy of Emily Brodie.

is interesting as fires were historically infrequent in subalpine systems and the increase in species cannot be attributed to plants that evolved to fill a post-fire niche. More data and further analyses are needed to understand how members of the high severity plant community differ from lower severity and unburned plant communities. Regenerating tree seedlings had a much different response to fire. When compared to unburned forest, they were found in greater densities after low to moderate severity fire (25-50% tree mortality by basal area) and lower densities after high severity fire (>90% tree mortality by basal area). In the case of tree seedlings, the mechanism for the pattern is more apparent and we can conclude that while conifer seedlings may benefit from the increased light and resources caused by reduced canopy cover after moderate severity burning, they are damaged by severe fire.

Field Notes: 2018 Onion Valley

Last year my wife Eileen and I did a hike to Robinson Lake in the southern Sierra out of Onion Valley (July 3, 2017). It has roughly the same trailhead location as Kearsarge Pass. As you may recall, 2017 was a very big snow year and there was still quite a bit of snow on the last mile of the trail. The mostly frozen lake still made a nice destination and was certainly without the people one might witness on the Kearsarge Pass Trail.

Sometimes I plan to visit locations or hike trails with the objective to find certain plant species or not. This was not one of those times. We were merely hiking and exploring, but I always take my camera along just in case. To my great excitement we were blessed with two nice surprises.

On the way up the trail, it became too snow covered to follow so we worked our way up to some large talus blocks, thinking they might be easier to negotiate than the snow slope. Underneath some of these car-sized boulders was a plant growing very nicely in the shade. Rather uncharacteristically, I recognized the plant right away. I had seen it but once before, nearly 30 years ago on a hike to the top of Mount Langley, further south in the Sierra.

This plant was *Hackelia sharsmithii*, Sharsmith's stickseed, a near-endemic of the southern Sierra. This plant is found in talus and rock crevices in alpine regions over 10,000 feet with Onion Valley being the northern end of its distribution. The southern end of

its distribution is the Cottonwood Lakes region south of Mt. Whitney (a disjunct population occurs in the Toiyabe Range in central Nevada). It appears to have been first collected by Carl Purpus but not described until 1939 by I. M. Johnston following the collection of many more specimens by Carl Sharsmith in 1937. Sharsmith noted that this plant grew "always under rocks in shaded situations" which seems odd for an alpine or subalpine plant. I was thrilled to have merely stumbled upon this plant and proceeded to photograph it thoroughly.



Hackelia Sharsmithii. Photo by Steve Matson.

On returning from Robinson Lake, I spied a little plant I had certainly never seen before. Something from the carrot family, Apiaceae, I was sure. I took multiple pictures and reviewed some of the familiar genera in Apiaceae for matches. However, I had no fruit, so this was problematic when making identifications in this family. Later, I realized I could have just visited the Consortium of California Herbaria (CCH) website and gotten a list of plants collected in Onion Valley and then run through the list for possible candidates. No, I resorted to social media, and posted a few images on the CNPS Facebook page. In short order Dean W. Taylor recognized the plant that he collected in 1977 a few miles to the north.

This second plant turned out to be an *Oreonana*, a genus that is endemic to the Sierra Nevada and the Transverse ranges of SoCal. This was not a genus I was familiar with at all. There are three species within this genus. This one was *O. clementis*, described first by Marcus Jones in 1912. What makes this genus stand out is the character of the fruit. The pedicels in the developed fruit form

spokes that create something of a ball that might, as some hypothesize, get blown around by the wind. Last summer (2017), as I said before, the plant was not in fruit. Thus, we returned this year on July 15 to seek out fruit. The snow was all gone by this time and we searched in vain at the location we found the plant last year. Undaunted, we worked our way around to the south side of Robinson Lake and started to scan the alpine sand and scree. We ended up finding quite a lot of the plant in fruit, but it was small and blended in quite well with the ground. Still, the fruit were spectacular, as you can see.





Oreonana clementis not in fruit yet (top). The spectacular fruit of *O. clementis* (bottom). Photos by Steve Matson.

The specific epithet "clementis" derives from the name Clemens, as some of the earliest collections of this *Oreonana* were made by Mary Strong Clemens or her husband Joseph Clemens in 1910. There are 1526 herbarium records of plants collected by them in California. This is remarkable given that they spent much of their lives in South East Asia or Australia. The genus "Oreonana" refers not to any cookie but may be translated as "mountain-dwarf."

--Steve Matson

Garden Updates

Gardening is a perpetual experiment. I plant species where I think they might do well and a few years later I re-evaluate. This fall I have been reworking some gardens that were put in 4–5 years ago. Some plants have needed thinning or replanting, others have gotten too big and needed to be cut back. Others have been too happy and have reseeded like crazy.

In two gardens I planted California evening primrose (*Oenothera californica* ssp. *avita*) along walkways. It turns out *O. californica* is great ground cover, as long as you want all the ground covered. It spreads like Bermuda grass. The ants knocked it back last fall and I thought that they had taken care of my out-of-control plant, but the primrose grew back from its roots, as lush and thick as ever. If I wanted a plant that could fill in an area and didn't mind its creeping nature, then this would be the plant. It has also invaded my flowerbeds and is outcompeting other plants, so some of it has to go.

Western blue flax (*Linum lewisii*) self-seeded like crazy in the Eastern Sierra Land Trust's garden but behaves itself in mine. So Marie Ring, the new Education Coordinator & AmeriCorps volunteer, and I dug out all those extra flax plants and moved them to the side of the building.



Marie Ring at the Eastern Sierra Land Trust's garden digging out the extra *Linum lewisii* plants.

I think a lot of us treat native plants like they are super precious. In reality they are plants that are appropriate for our area, but still need to be managed in order to have an attractive landscape. They need to be tended to, trimmed, moved and the extra volunteers weeded out. That is what makes us gardeners – we like to putter in our yards! Winter is a good time to take stock of the yard, clear out the plants that didn't work for whatever reason, and figure out what you would like to put in their place. Then when the spring plant sale comes along, you'll know what you want to buy.

--Katie Quinlan

CNPS Guide to Recovery After Fire

While we felt helpless when hearing the news reports of the November 2018 Camp Fire, the worst wildfire in California history, that destroyed the town of Paradise and other communities in Northern California – our time to help is now.

Paradise residents want to rebuild their community and enlightened people are already requesting the CNPS booklet *Guide to Recovery After Fire*. A total of 21,000 copies were distributed free to victims of previous fires.

CNPS needs to raise \$20,000 to revise the booklet to be more appropriate for the Paradise area. Then we can provide copies free to the Town planners and residents to encourage the planting of native plants, which the wildlife need to return and thrive.

Please consider contributing to the CNPS effort to revise and distribute this quality booklet. To donate, use the donation form provided in this issue and mail it to:

California Native Plant Society 2707 K Street, Suite 1 Sacramento, CA 95816-5130

Another option is to click the *Donate* button on the following webpage:

https://www.cnps.org/give/priority-initiatives/firerecovery

There, you can also find more information and a PDF of the first edition of the guide.

The wildlife thanks you!

--Lorraine Matsen



Cover of the first edition on CNPS' Fire Recover Guide.

Welcome New Members!

We have new members that we would like to give a warm welcome to, especially during the cold winter season. Randall Arnold, Paul Ashby, Sylva Blackstone, Nathan Guess-Pratt, Elizabeth Mitchell, Lola Pellicer, Julie Sage, and Andrew Vratny recently joined our Bristlecone Chapter. Thank you all for joining and thank you to those who have renewed their memberships!



YES! I want to help my fellow Californians and their lands recover from fire!

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Please use my gift of:	0	\$48 to reach 10 homeowners	0	\$120 to reach 25 homeowners
	0	\$240 to reach 50 homeowners	0	\$ your donation of any amount will help.
O I have enclosed a check for the total.	Nar	ne		
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• Please charge my credit card	City		_	State Zip
	Car	d Type Card No	_	Expiration//
	Sec	urity Code Signature		

Up-Coming Events

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

Bristlecone Chapter Board Meeting Wednesday, February 6, 6:00 pm Eastern Sierra Land Trust, 250 N. Fowler, Bishop All members are welcome.

Non-Local Events (For updated information, visit www.cnps.org/events)

The Northern California Botanists Symposium – "Research and Conservation of Northern California's Vegetation Communities" January 14 – 15 Poll Momorial Union Chica State W 2nd St

Bell Memorial Union, Chico State, W 2nd St Chico, CA 95928

Northern California Botanists will present a two-day symposium titled "Research and Conservation of Northern California's Vegetation Communities" at California State University, Chico, plus a third day of workshops. Also included: a poster session, reception, banquet, keynote speaker. Student stipends available. For details, see: www.norcalbotanists.org

Vernal Pool Branchiopods: A Workshop for Future Permit Holders January 28 – February 2 Davis and Sacramento area CA

This workshop combines both an ID class and 20 hours of wet season surveys, two requirements needed to begin the Vernal Pool Branchiopods 10(a)(1)(A) permit process for wet season surveys (note: taking the workshop does not guarantee minimum qualifications for the permit). Participants also have the option of taking only wet season field survey portion if they choose. The ID course will be taught in Davis, CA; and the wet season field survey portions will take place in three different locations in the Sacramento Valley, specially chosen for a diverse branchiopod fauna. See the website for more information and to register.

https://www.wildlifeprofessional.org/western/vpb 2019_reg.php

Up-Coming Events

(For updated information, visit <u>bristleconecnps.org/events</u>)

7th annual Santa Barbara Botanic Garden Conservation Symposium – "Trailblazing Women in Conservation" February 2, 10:00 am – 4:00 pm Santa Barbara County Education Office, 4400 Cathedral Oaks Rd, Santa Barbara, CA 93110

The symposium will feature six female speakers who have done inspiring, ground-breaking work to better understand, protect, and restore the diversity of life that sustains us all.

The Garden's 2019 Pritzlaff Conservation Awardee, Dr. Gretchen Daily, will be the keynote speaker for the event. Dr. Daily is the Bing Professor of Environmental Science and Director of the Center for Conservation Biology at Stanford University, and the Co-Director of the Natural Capital Project, which is developing practical tools and approaches to account for nature's contributions to society, so that leaders of countries, companies, communities, and organizations worldwide can make smarter decisions for a more sustainable future. Find out more and register at <u>www.sbbg.org</u>

Please send your articles or information to us by February 15, 2018 for the next issue.

Bristlecone Chapter Directory

President: Katie Quinlan 760-873-8023 Vice President: Michèle Slaton 760-920-8693 Secretary: OPEN Treasurer: Sue Weis 760-873-3485 Chapter Council Rep: Stephen Ingram 760-937-9918 Conservation/Partnerships: OPEN Programs: Michèle Slaton 760-920-8693 DeDecker Grants: Michèle Slaton 760-920-8693 Field Trips: Sue Weis 760-873-3485 Historian: OPEN Bishop Plant Sales: Katie Quinlan 760-873-8023 Mammoth Plant Sales: Sherry Taylor 760-934-2338 Publicity: OPEN Newsletter: Elaine Chow newsletter@bristlconecnps.org Membership: Elaine Chow membership@bristlconecnps.org Website: webmaster@bristleconecnps.org Hospitality: **OPEN T-shirt Sales: Stephen Ingram** DeDecker Garden: Steve Dickinson

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The California Native Plant Society Bristlecone Chapter P.O. Box 364 Bishop, CA 93515-0364 <u>RETURN SERVICE REQUESTED</u>

Note: If you still receive this newsletter via US Mail, please help the Bristlecone chapter save money, energy, and trees by sending your email address to newsletter@ bristleconecnps.org so you can receive the electronic version.

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 <u>cnps.org</u> and click on the JOIN/renew button at the top of the page, or mail in the form below:

Name:	
Address:	
City:	State:
Zip Code: Phone:	
Email:	
I wish to be affiliated with the Bristleco	one Chapter:
Other:	-
Membership Category	
Student / Limited Income	\$25
Individual	\$45
Family	\$75
Plant Lover	\$100
Patron	\$300
Benefactor	\$600
_ Mariposa Lily	\$1500
Additional Contribution	

Mail To / Make Payable To: CNPS Membership Coordinator 2707 K Street Suite 1

2707 K Street, Suite 1 Sacramento, CA 95816

Specific Area:

Gift Contribution: _____ Wherever needed