Dedicated to the Preservation of California Native Flora

The California Native Plant Society

Bristlecone Chapter Newsletter

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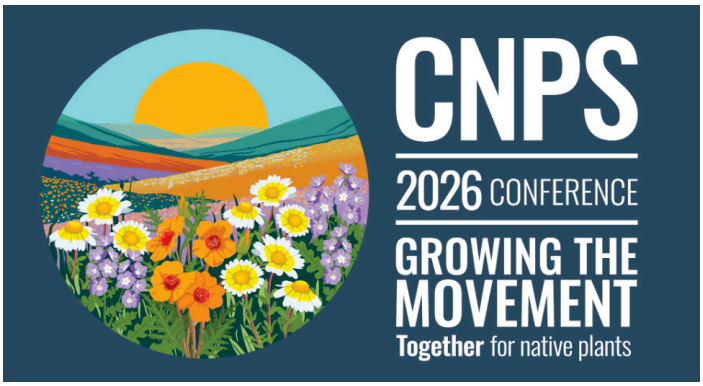
Winter 2025-2026

President's Message — *Stephen Ingram*

Our Bristlecone Chapter board is happy to welcome Richard Rachman as our new Programs Coordinator! Richard answered our call for volunteers and agreed to organize our bi-monthly programs for 2026 and hopefully beyond. He contacted several potential speakers to give a presentation for our Annual Potluck with the Eastern Sierra Bird Alliance, but none could commit, so Richard decided he would give the program himself. Richard is a volunteer coordinator for the monarch butterfly count in Saline Valley (read his article on page 4), which he discussed with other information about western monarchs, at our meeting on December 3. He is a plant ecologist and community scientist with a strong interest in citizen science. Richard is new to Bishop and currently works as a data analyst for CalTrans.

Most of California received a bounty of rain in mid-November, including Furnace Creek in Death Valley which received 1.75 inches - making it the wettest November on record! A few more good rains in December and January could bring a floriferous spring to Death Valley and the Mojave Desert.

Speaking of Death Valley, there is some exciting news about *Tidestromia suffruticosa* var. *oblongifolia*, or Arizona honeysweet (Amaranthaceae), from Death Valley. Researchers at Michigan State University's Plant Resilience Institute showed that this small, gray-leaved shrub can rearrange its mitochondria to be closer to chloroplasts, and re-shape its chloroplasts into cup-like forms when summer temperatures climb. Scientists think this may help these plants photosynthesize more efficiently. This amazing plant also adjusts its gene activity to protect its membranes and "photosynthetic machinery" from heat damage. It is supremely well-adapted to its arid habitats, and is "the most heat-tolerant plant ever documented." By studying the genomics and cellular mechanisms that make this species so well-adapted, these scientists hope to learn how to make food crops more heat-tolerant in our warming climate. Click here to read more.

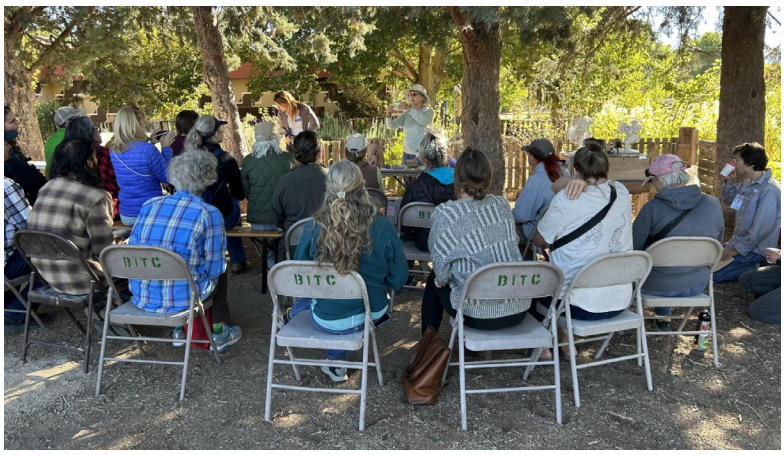


Registration is now open for the CNPS Conference that will be held February 5-7, 2026 in Riverside. All information can be found on the conference website. The 2026 CNPS Conference is a gathering of the diverse people and perspectives powering California's vibrant native plant movement. We welcome new and seasoned members of the community to join us as we come together to learn and share in celebration of California's plants and our connections to them.

Dear Members:
In order to conserve resources (environmental, volunteer, and Chapter funds), we will now send out the Bristlecone Chapter newsletter electronically and will no longer send it via USPS. CNPS exists due to its members, and our ability to communicate with you is essential. If you have previously requested a paper newsletter, **PLEASE provide a current email address by February 15** to which we can send your newsletter. If you cannot receive email, we suggest you utilize your local library to read the newsletter online by using their public computers to reach our website; for a nominal fee most libraries will print it for you. Send your current email address, or questions and concerns, to Sue at membership@bristleconecnps.org.

Thank you in advance for understanding the need for this policy change!
Sue Carter, Membership Chair

Local News
Seed Cleaning Workshop Recap



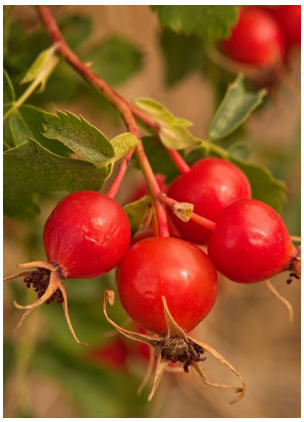
In October the Bishop Paiute Tribe hosted a seed cleaning workshop in conjunction with Eastern Sierra Land Trust, Deep Springs College, Bristlecone Chapter of CNPS, and the Master Gardeners. Despite competing with Choo Choo Swap meet and the Big Pine Fandango, the workshop was well attended.

Ellyn Greene, the grower from Deep Springs College, and Katie Quinlan from the Bristlecone Chapter presented the various tools and methods of cleaning seeds. They started with why you would want to save seeds and then moved on to what time of year and ethical collecting of the seeds. They then moved on to the various methods of collecting and cleaning different types of seeds. Ellyn then covered isolating and plant spacing if you are growing to collect for your vegetable and flower gardens.

Participants came away claiming that it was an abundance of knowledge and appreciated that they could now do it on their own. Many people were surprised that for some seeds there were so many considerations to getting the plants to grow.

Plant of the Season *by Stephen Ingram*

Interior Rose (*Rosa woodsii* subsp. *ultramontana*)



Interior wild rose is one of those plants that elicits strong feelings among native plant gardeners and botanical field techs. Many people hate it, some love it, and some (like me) hold both feelings simultaneously. Stems fortified with slender, straight prickles, tendency to form thickets from rhizomatous growth, and a penchant for spreading make interior rose "challenging" for (some) gardeners. Yet most people love its delicate, green spring foliage and fragrant, pink flowers.

Regardless of how we feel about interior rose, it is an ecological powerhouse of a rose. The late summer-ripening fruits, called hips, are sought after by cedar waxwings, robins and other thrushes, mule deer, and gray foxes. Its brilliant red fruits are often used to make tea, jams and jellies, and are a good source of Vitamins C, K, E, and B, antioxidants, beta-carotene, calcium, and other nutrients. The bee-pollinated flowers are reportedly good in salads, and its many ethnobotanical uses are well known. Unlike ornamental roses, the prickles of our native *Rosa* species are outgrowths of the stem epidermis - not to be confused with thorns, which are modified stems.

The genus *Rosa* includes about 140 species worldwide, with native species occurring in cooler parts of the northern hemisphere. According to the Flora of North America, botanists have historically recognized between 129 and 15 North American *Rosa* species. They hybridize freely and botanists are prone to both lump and split taxa. In 2025, there are 33 species recognized in North America and 20 taxa (incl. varieties and subspecies) native to California, including two subspecies of *Rosa woodsii*.

The interior rose subspecies differs from Mojave rose (*Rosa woodsii* subsp. *gratissima*) in having generally fewer prickles that are slender rather than many, thick-based prickles, and no internodal prickles within the inflorescence. Interior rose occurs in moist areas along the eastern slope of the Sierra, northern Sierra, Cascades, and Modoc Plateau north into British Columbia, northeast to Montana, and east to Colorado. Mojave rose occurs around springs in the desert mountains east and south of Owens Valley. *photo by Stephen Ingram*

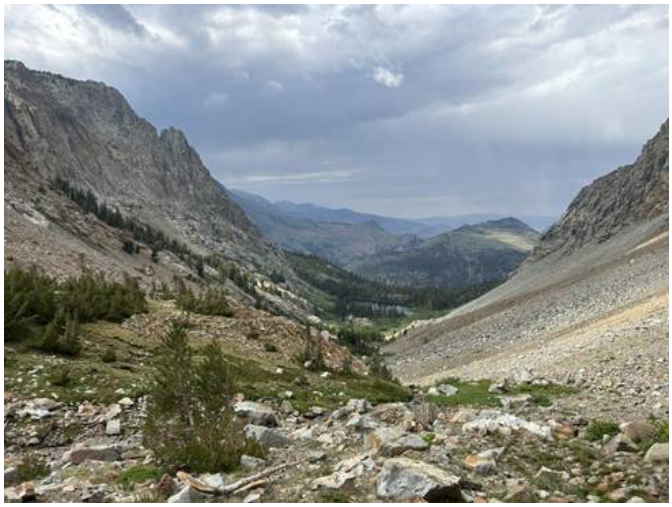
DeDecker Grant News

The Bristlecone Chapter is accepting applications for the 2026 Mary DeDecker Botanical Grant, from now until January 16th, 2026. This small-grants program is intended to promote research and projects that increase understanding and appreciation of native plants and ecosystems in the Bristlecone Chapter area. 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. One or more grants of up to $1,500 will be awarded. For more information and application requirements, visit our website: DeDecker Grant - Bristlecone chapter - CNPS

The following is a summary from one of our 2024 grant recipients:

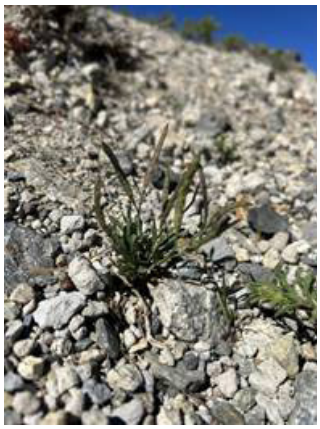
A Floristic Inventory of the Owens River Headwater Wilderness, Mono County, California

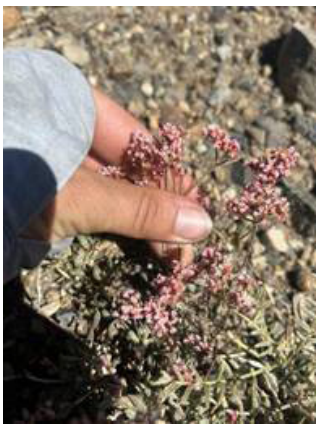
Rachel Tageant,
Claremont Graduate University,
California Botanic Garden



Fern Lake

I am Rachel Tageant a master's student at the California Botanic Garden conducting a floristic inventory of the Owens River Headwater Area (ORHA) in the central-eastern Sierra Nevada. My study area is approximately 52 mi² and includes the Owens River Headwater designated wilderness area in the Inyo National Forest. Located along the eastern side of the Sierra Nevada crest, approximately 12 miles northwest of Mammoth Lakes in Mono County. This unique area is located near a transition zone between the California Floristic Province and the Great Basin Floristic Province. The elevational range of the OHRA is 7,200 - 11,520 ft and is characterized by pumice pebble flats, volcanic outcrops, forested mountain slopes, high-elevation meadows, lakes, and alpine summits. The primary goal of my master's research is to conduct a comprehensive floristic inventory of the ORHA and surrounding areas by collecting herbarium specimens, compiling an annotated species checklist, and characterizing the vegetation types in each habitat.





The 2024 field season was great and productive. In 2024, I was able to find the *Carex petasata* (Liddon's sedge) 2B.3 in Glass Creek Meadow, the clustered-flowered cryptantha *Cryptantha glomeriflora* 4.3, Sweetwater Mountain Milkvetch *Astragalus kentrophyta* var. *danaus* 4.3, Northern Limestone Buckwheat *Eriogonum microthecum* var. *alpinum* 4.3, and Pinzl's Rockcress *Boechera pinzliae* 1B.3.

I am very grateful to have received the Mary DeDecker Botanical Grant, which helped fund the cost of travel to and from my study area and aided in the purchase of the necessary equipment I needed for my research. Thank you for your generosity, and I look forward to sharing more of my discoveries.

Top photo: *Boechera pinzliae* 1B.3

Bottom photo: *Erigonum microthecum* var. *alpinum* 4.3

A California Rare Plant Rank (CRPR) provides a notation that signifies the rarity of a taxon. 1B are plants that are rare throughout their range, and most are endemic to California. The threat rank of .3 is the least threatened. 2B plants are rare, threatened, or endangered in CA but more common elsewhere. A CRPR of 4 are plants on a watch list; they are of limited distribution in California.

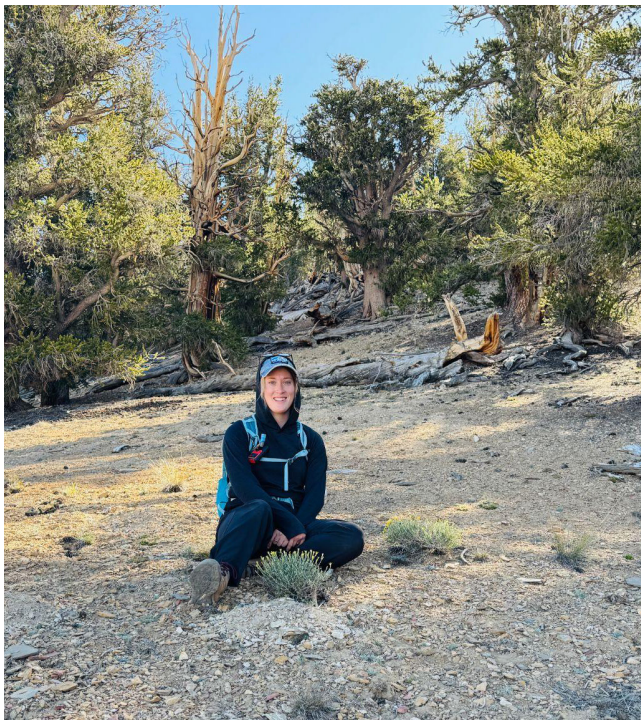
Progress Report for the Mary DeDecker Botanical Grant 2025

Project Title: Unraveling the Taxonomy and Phylogenetic Relationships of *Ericameria parryi* in the Western United States

Samantha Ingram | Ph.D. student | California Botanic Garden/Claremont Graduate University

Project Abstract

The *Ericameria parryi* complex (Asteraceae) represents a taxonomically challenging group of shrubs distributed across semi-arid and montane habitats across the western United States, including several endemic varieties to California. Despite the ecological importance across *Ericameria* species (providing pollinator resources, stabilizing soils, and contributing to post-fire regeneration) varietal boundaries within this complex remain unresolved. This project combines herbarium research, fieldwork, and molecular phylogenomics to investigate morphological and genetic diversity across the 12 recognized varieties of *E. parryi*. Ultimately, this study will result in a robust phylogenetic framework to test the validity of current taxonomic treatments, and provide data to help evaluate conservation status and rarity across intraspecific taxa. Broader impacts include conservation recommendations, undergraduate research training, and community education workshops.



Research Progress

This summer, I successfully collected six of the twelve varieties of *E. parryi* throughout California and Nevada. Several highlights of the 2025 field season were hiking in the Bristlecone Pine Forest, Mono Pass in Yosemite, and backpacking in the Golden Trout Wilderness where I gathered field samples among spectacular mountain views. Along the way, I had the opportunity to meet people curious about my field press and research, leading to great conversations about botanical research. By the end of the season, I collected a total of 60 samples representing six *E. parryi* varieties. These collections will form the foundation of my upcoming laboratory work. I am eager to explore the relationships within the *E. parryi* complex and what their evolutionary patterns can reveal about adaptation, ecology, and conservation. I want to extend a heartfelt thank you to CNPS Bristlecone Chapter for awarding me the Mary DeDecker Botanical Grant, which funded fieldwork to Mono and Inyo counties and allowed me to accomplish more in my first year than I ever could have imagined.

Top photo: *E. parryi* var. *aspera*

Bottom photo: *E.parryi* var. *imula*

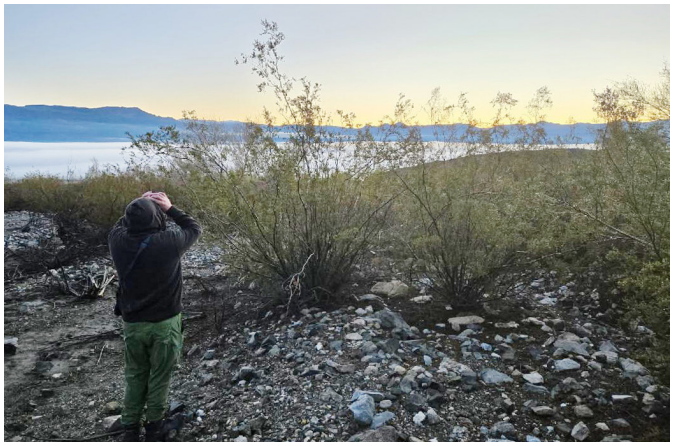
Conservation News

Glimpses Of Orange, White, and Black: Monarch Butterflies of Saline Valley

By Richard Rachman

Western monarch butterflies, *Danaus plexippus*, are large, orange, black and white butterflies, much like their nearly identical relatives, the eastern monarch butterfly. What makes them different from their siblings back east is that they spend their winter months primarily on the coast of California. As an adaptation to the senescing of their larval food source, milkweed, *Asclepias* spp., monarch butterflies have evolved strong wings and the ability to fly hundreds of miles in a few days to survive the harshest time of year, to then lay eggs in early spring for their grandchildren to continue on with the migration back towards the western interior.

Some monarch butterflies journey to Owens Valley, returning every March and April to lay eggs, feed, grow, mate, and continue onward throughout the region and beyond. But come Fall, monarch butterflies, perhaps from Nevada, move towards the relatively stable canyons of Saline Valley in Death Valley National Park. Three main canyons harbor the overwintering monarchs: Hunter, McElvoy, and Willow, as well as some other rarely surveyed canyons. These butterflies don't stay as long through the winter as their brethren in San Luis Obispo or Santa Barbara, but they cling to the mesquite, creosote, and coyote brush for some of the coldest months of the year. This makes for an optimal time to count them, and perhaps get a glimpse into how the species is doing writ large.



Since 1978, with the efforts of local entomologist and Bristlecone Chapter member, Durham Giuliani, naturalists have been counting and monitoring the monarch butterflies of Saline Valley. For these nearly 50 years, their numbers typically haven't been recorded above 1,000, but even 800 monarchs in one location must have been quite a sight to behold! Every year, folks have been making the arduous and at times sketchy trek through the north pass of the Inyo Mountains from Big Pine, taking approximately 3 hours in an all-wheel drive vehicle, and camping at the various canyons in Saline Valley. Then waking up before sunrise, and finally counting the monarchs with the first sunlight and noting what plant species they roost on and perhaps nectar feed on. The survey is not easy, but for those with a passion for conservation, it can be quite rewarding.

The count for 2025 is still ongoing, so perhaps too early to print preliminary results. Overall, the western monarch butterfly is not doing well, making surveying even more important to get a pulse on the health of this fascinating species. If you are interested in becoming a volunteer, search Saline Monarch Count and reach out to Stu, the volunteer coordinator. Hopefully you will get to see a glimpse of this rare piece of natural history most people will never get to see up close in their lifetime.