Dedicated to the Preservation of California Native Flora

The California Native Plant Society

Bristlecone Chapter Newsletter

Volume 48, No. 1

Spring 2026

President's Message — *Stephen Ingram*

When I started to write this message in mid-February, a third consecutive day of snow was piling up thigh-high outside. After six weeks with no precipitation and record warmth, the storm door had just swung wide open with a series of very cold, winter storms. The slopes of the Eastern Sierra received a beautiful deep blanket of cold, dry snow. But then the increasingly frequent "weather whiplash" melted the white blanket with abnormally high temperatures over the following week, leading to localized flooding.

Nonetheless, rain and snow bring the promise of annual spring wildflowers, which are already putting on a colorful show in Death Valley. This spring should continue to be floriferous all over California, so go enjoy it when you can.

I attended the CNPS Conservation Conference in early February, along with a thousand others, and was impressed with the range and depth of the presentations I watched. There was too much to summarize briefly here, but I did want to mention one gratifying occurrence. During the banquet, Conservation Program Director Nick Jensen led us through a series of plant choices to discover what the most popular California native plant was among attendees. We started with 32 paired options, then eliminated half sequentially until we ended up with the Great Basin Bristlecone Pine — everyone's favorite plant!

The Bristlecone Board welcomes Nathan Steele, who recently volunteered to help us with Publicity and social media postings. Nathan works for the Death Valley Natural History Association, and also helped with our field trip to Death Valley on February 28. Thank you, Nathan!

Finally, on a much sadder note, I want to remember the life of our friend Michael Honer, who passed away in December. Michael was a member of the Bristlecone Chapter who loved the Mojave Desert, Owens Valley, and the Eastern Sierra. He was one of our first two recipients of a $500 DeDecker Botanical Grant in 2001 — the year our grant program started. The grant was for Michael's graduate work on the Flora of the Glass Mountains. For years he split his time between his home in Isla Vista and a family home up in Aspendell west of Bishop. He spent much of his botanical career doing rare plant surveys in California's amazing desert regions. The last time some of us enjoyed his company was on Steve Matson's field trip to Eureka Valley in May, 2024. I will remember Michael's big smile, his wonderfully sly sense of humor, and his genuine curiosity.

Here is a link to a great In Memoriam article with photos about Michael, by Michelle Cloud-Hughes, on page 7 in Leaflets of the Southern California Botanists.

https://socalbot.org/wp-content/uploads/2025/12/2025-Leaflets-v38n4-Oct-Dec-2.pdf

Announcements / Events

Despite our February storms making it feel like winter has just started, spring is on the way and with it lots of native plant gardening events.

The first of upcoming events will be volunteer work days: first, **Saturday March 14, 2026 from 9am-12pm**, help with a Native Plant Garden Work Day at the DeDecker Native Plant Garden at the Eastern California Museum in Independence. **Please RSVP** to garden@bristleconecnps.org so that we have your contact information in case we need to reschedule.

The second will be a clean up day at the research station in Bishop, in partnership with the Orange Lutheran High School students. This will take place one day of the weekend of **March 19 - 22nd**. (The exact day hasn't been decided yet but if you are interested in helping out, contact Katie through the plant_sales@bristleconecnps.org address and she will let you know which day it is.) If we can get a large group of helpers then we can get a lot of the leaves raked up which will help keep the mice down as they will have less places to hide.

On **April 11th from 9am-12pm** our next event will be the Pollinator Garden Workshop held in partnership with the Eastern Sierra Land Trust. It will be held at the Bishop City Auditorium. Topics to be presented are, bringing wildlife into your garden, how and why it is important to attract monarch butterflies to your garden, firewise landscaping, soil health, and what local native plants make good garden plants.

May 2nd from 11am-2pm Gardenfest will be held at the Eastern Sierra Land Trust Office. This is the spring plant sale and there is a lot of demand for those spring plants. This year we are going to try something different and just have the native plants in the back yard. People will enter from the parking lot (a section of fence will be removed) and exit out the driveway. This will allow us to spread out and not be so scrunched up. We hope this will make the shopping experience more relaxed and civil.

Finally on **May 16th** in partnership with the Land Trust again, we will hold the Pollinator Garden Tours. This is your chance to tour other people's native gardens and get inspiration for yours. The gardeners will be hosting their gardens and available to answer questions.

Scheduled in between all those events a cadre of volunteers will be seeding and potting up plants for the fall plant sale. We are trying a new experiment at the research station this year (because after all it is a research station) and wrapping the bricks that are the legs of the tables with different materials to see if they can keep the rodents off the tables and away from the plants. We will update you on the results of that experiment in the next newsletter. We hope to see you at some of these events.

Richard Rachman, CNPS Program Coordinator, will lead multiple **iNaturalist and City Nature Challenge** events in Mono and Inyo Counties. This is the first year Bishop and Mammoth Lakes are represented in the City Nature Challenge, a global event for cities to collaborate to upload community science data. Richard will lead a workshop **April 3rd from 6-7:30pm** at the JKB School, 166 Grandview Drive, Bishop, in the George Lozito Conference Room on using iNaturalist, followed by appearances at the Pollinator Workshop and the Owens Lake Bird Festival. BioBlitz during the weekend of the **City Nature Challenge, April 24th to April 27th**, will soon be announced. Download iNaturalist onto your phone and get observing.

General Meeting

Friday, March 20, 7:00 pm at JKB School, in the George Lozito Conference Room
166 Grandview Dr., Bishop
Guest speakers will be graduate students Mia Manfredi: Death Valley Sage (*Salvia funerea*) and Mahima Dixit: *Eriogonum* (wild buckwheats) subgenus *Ganysma*

Salvia funerea (Death Valley Sage), a rare shrub in California and Nevada restricted to carbonate substrates, occurs in two disjunct regions separated by 80 miles/130 km within the Mojave Desert. In the northern portion of its range, *S. funerea* occurs primarily inside Death Valley National Park with a few known occurrences just outside of the park including four in Nye County, Nevada. In the southern region, *S. funerea* occurs in the Bristol, Marble, and Ship mountains near Amboy, California. This study incorporates population genomics, species distribution modeling, field observations, and morphometric analyses to investigate patterns of genetic diversity, identify possible differences between the two disjunct regions of occurrence, and to better inform future conservation actions and management practices for the species.

Eriogonum (wild buckwheat) is a remarkably diverse genus occurring in arid habitats across western North America. Almost half of the species are represented in the state of California, including charismatic characters and notable endemics. This research is focused on subgenus *Ganysma*, a group of mostly annual, desert dwelling buckwheats. With questions from species relationships to arid adaptation, the intersection of fieldwork, phylogenetics, and phytochemistry aims to shed light on some of these mysteries.

Bios:
https://www.calbg.org/graduate-students/mia-manfredi

https://www.calbg.org/graduate-students/mahima-dixit

Wednesday, May 27, 7:00 pm at JKB School, in the George Lozito Conference Room
166 Grandview Dr., Bishop
Guest speaker Dr. Hugh Safford will discuss High Elevation Jeffrey Pines

In the summer of 2024, I found an extraordinarily high-altitude population of young Jeffrey pines in the Kaweah Mountains, at elevations up to nearly 12,700 feet. This is thousands of feet above the generally recognized range of the species, and – unbelievably – the population included the highest formally recorded individuals of any tree species in California. This find set in motion a study of the Jeffrey pine phenomenon, its extent, its drivers, and its meaning. In the summer of 2025 we surveyed tree populations above timberline in Yosemite and Sequoia-Kings Canyon National Parks, as well as in the Inyo National Forest and the Lake Tahoe Basin Management Unit. We found that the Jeffrey pine phenomenon is much more widespread than we believed, we found that individuals of all of the subalpine tree species are growing at higher elevations than previously documented, and we found the first trees – all whitebark pine – ever reliably recorded above 4000 meters (13,124 feet) in California. An interaction between the warming climate and bird dispersal of seeds is driving much of what we see. I'll report on our findings from last summer, describe what we know about the current status of the Jeffrey pine invasion, and theorize a bit about how this invasion may fundamentally change Sierra Nevada subalpine forests

Bio:
https://safford.ucdavis.edu/people/hugh-safford

Field Trips

Saturday, April 25, 8:30am at Fish Slough

This will be a joint field trip with Friends of Fish Slough and the Bristlecone Chapter of CNPS. We will meet in the Bishop Von's parking lot on the south side of the Von's gas station at 8:30 AM

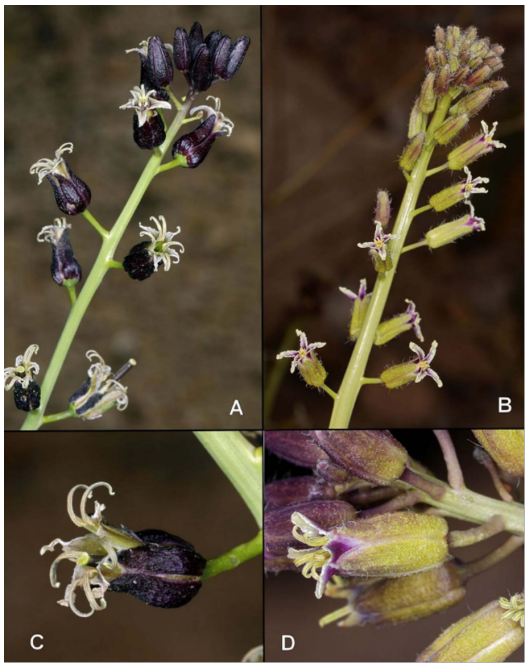
We will car pool from there and drive 10 minutes north and make three or four stops near or around Fish Slough. This should be an excellent year for wildflowers. I hope we will see acres of *Mentzelia nitens*, as well as some rarer things.

Click on the following link to get an idea of what we will see.

The group size will be limited to 15. Notify our Field Trip Chair Person Tom Higley. If we fail to procure a permit, we will find an alternative destination. Bring lunch, water, sun protection. There will not be a lot of walking (very far).

Local News *by Steve Matson*

Caulanthus sierrae



Back in 2009, I attended a CNPS Chapter meeting (of all things) in the Bay Area, where I met a botanist named Roy Buck. I had no more contact with Roy until 2011, when he emailed me about images of mine on CalPhotos. He mentioned that images I had labeled Caulanthus pilosus were something else. Members of the Bristlecone Chapter may know this plant as "Chocolate drops," a tall biennial known from the Eastern Sierra.

Roy had spent time in the Eastern Sierra in the '80's and '90's and had noticed that what everyone was calling *C. pilosus* was two distinct species. His dissertation for a PhD in botany from UC Berkeley in1995 detailed this distinction as well as offering the name "*Caulanthus sierrae*" as a name for this new species. Roy went as far as commissioning an illustration by Linda Vorobik.

Unfortunately, Roy never completed the publication of his new species. Then, to make matters worse, Roy died in January 2019. (Artemisia: Volume 49, No. 1, June 2022).

By 2019, several people thought it was a good idea to complete that publication process. Rob Preston spearheaded the operation and using Roy's dissertation as a primary source and with Ann Howald as coauthor, published the new name in *Madroño* (VOL. 72 · NO. 4, October–December 2025). Yes, a new species for the Bristlecone Chapter, with most collections and observations within the loosely defined boundaries of the Chapter.

The above images (mine) were included in the *Madroño* article to illustrate the difference between these two species, *Caulanthus sierrae* on the left (A & C) and *C. pilosus* on the right (B & D). *Caulanthus sierrae* tends to grow along the eastern slope of the Sierra Nevada mountains south to southern Inyo County and a bit into Kern and Tulare Counties. *Caulanthus pilosus* is a much more widespread species found throughout the intermountain west. These plants are sympatric in places, which is a fancy way of saying they have overlapping geographic ranges…that is, they can grow together in some locations, such as near Bishop.

I hope this little story will enhance your appreciation of this plant, which can grow over three feet tall, as you explore our rich and wonderful back yard. The *Madroño* article is well worth reading, but without being a member of the California Botanical Society, it resides behind a paywall. Maybe that could be an incentive to join the society.

DeDecker Grant News

Happy Silver Anniversary!

We are proud to share that this is our 25th year of awarding grants for a wide range of projects throughout our chapter area. Mary DeDecker passed away in the fall of 2000, and Karen Ferrell- Ingram proposed the idea of a grant program to honor all of Mary's contributions. We have had so many great projects, ranging from taxonomic work to ecosystem dynamics to educating our local young humans about native plants. Our grant program is funded through our native plant sale program, so keep an eye on our calendar and come on out and shop! Beautify your yard while contributing to the ongoing quest to learn more about our local plant species and ecosystems.

We have just reviewed our 2026 grant applications, and are excited to fund 9 projects for the coming year! Watch future newsletters for reports from last year's and this year's projects.

Please enjoy the following report from one of our 2025 grant recipients. Mahima gave a great talk at one of our chapter meetings last year.

Phylogeny and Taxonomy of Eriogonum subgenus Ganysma with a Focus on the E. deflexum group and Phytochemical Diversity across Eriogonum (Polygonaceae)
2025 Mary DeDecker Botanical Grant Progress Report
Mahima Dixit, PhD Candidate in Botany
California Botanic Garden and Claremont Graduate University

Eriogonum Michx. (wild buckwheats) is a large and diverse genus, with 252 species throughout North America and 119 in California alone. Within *Eriogonum*, I am studying what is currently recognized as subgenus *Ganysma* (62 species and 73 minimum-rank taxa), a group of mostly annual, desert-dwelling plants. I am particularly fascinated by arid adaptation of these plants as well as the *E. deflexum* group within this subgenus which shares the trait of deflexed (upside-down) flowers! Until recently, most of the species in *Eriogonum* have been classified mainly based on morphological traits, and knowledge of evolutionary history is largely incomplete. Furthermore, acclimation of *Eriogonum* species to dry habitats is understudied. For my dissertation research, I am using phylogenetics along with phytochemistry (the study of chemicals in plants) to answer questions regarding species relationships and adaptations to harsh environments. The main objectives of my study are to (1) create a robust phylogenetic estimate that places members of subgenus *Ganysma* in the context of *Eriogonum*, (2) recommend an improved classification for the subgenus and the *E. deflexum* group, (3) interpret phytochemical data in relation to the phylogeny, and (4) identify compounds that play a role in arid adaptation.

Thus far, I have conducted three seasons of fieldwork and sequenced four sets of ddRADseq libraries (96 samples each). In 2025, I completed fieldwork for my study and am currently wrapping up lab work to process the remainder of my samples. Some notable places I explored include the eastern Sierra Nevada and Tonto National Forest, Arizona! Between my own collections, vouchers from fellow botanists, and herbarium specimens, I have been able to sample all 73 minimum-rank taxa for my study. While I still have samples to finish processing, there are already interesting results from the data I have so far (see Fig. 1 below). For example, including members of subgenus *Eucycla* in the analysis reveals that subgenus *Ganysma* is not monophyletic. Additionally, *E. deflexum* itself is not a single species; this is shown by var. *deflexum* resolving separately from vars. *baratum* and *nevadense*. It will be fascinating to see how relationships look after the final analysis. Regarding phytochemistry, I began collaborating with a professor and two undergraduate students from the chemistry department of Pitzer and Scripps colleges. For this aspect of my research, we have been preparing extracts using chemical solvents, a sonicator (a machine that breaks cell walls with soundwaves!), and vacuum filtration. Then we will use liquid chromatography with mass spectrometry to detect and identify chemical compounds in my samples.

DeDecker Grant News, *continued*

The funds generously awarded by the CNPS Bristlecone Chapter made it possible for me to fully support the remainder of my research! The DeDecker Grant will be used to pay for one of two final sequencing plates in January 2026.

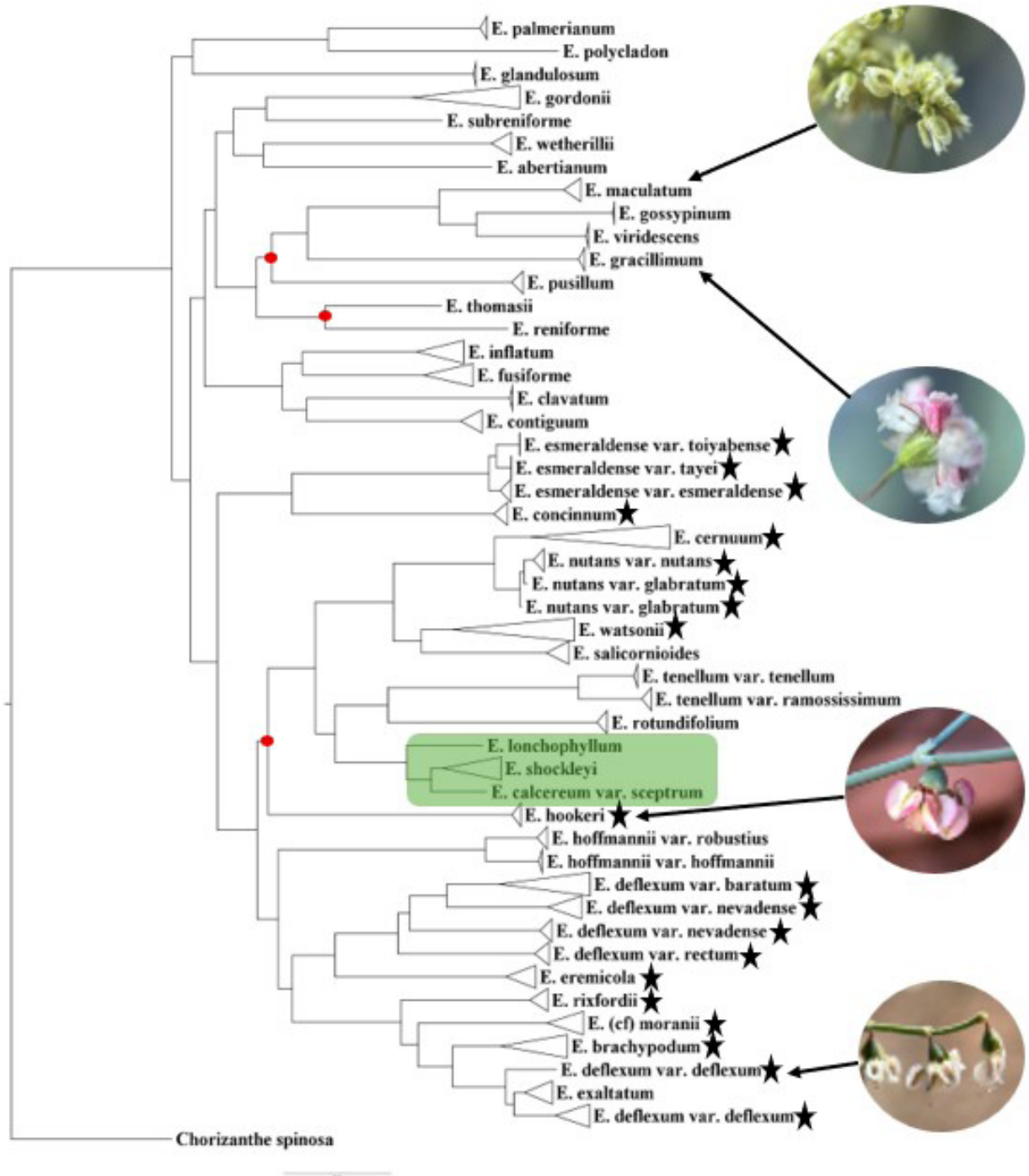


Figure 1. Maximum likelihood tree of *Eriogonum* subgenus *Ganysma* species, rooted with *Chorizanthe spinosa*. All nodes have bootstrap support of at least 95% unless indicated in red. Species in subgenus *Eucycla* (included for context) are highlighted in green. Species in the *E. deflexum* group are denoted by a star. Terminal clades representing multiple samples of the same taxon are collapsed for presentation.

Plant of the Season *by Stephen Ingram*

Death Valley Monkeyflower (*Diplacus rupicola*)

I've never met a botanically-inclined person who didn't love monkeyflowers. Their flowers are colorful, unique, and seem to give a cheerful greeting to the curious admirer. And I've known of monkeyflower admirers who do their "happy dance" upon finding Death Valley monkeyflower in bloom. I'm sure Mary DeDecker recognized the broad appeal of this species when she put an illustration of it on the cover of her 1984 CNPS publication, Flora of the Northern Mojave Desert, California.

There are currently 49 accepted species of *Diplacus* native to the Western U.S. and northwestern Mexico. *Diplacus rupicola* is nearly endemic to Inyo County, with a few known locations in western Nye County, Nevada. But the common name for this species is highly appropriate as the vast majority of its populations occur within Death Valley National Park. Death Valley monkeyflower has a rare plant rank of 4.3, which signifies its limited distribution but relative abundance and few threats within its restricted range.

"Rupicola" is derived from the Latin words "rupes," or rock, and "cola," or dweller. This spring-flowering perennial does indeed dwell among the rocks, from just above the floor of Death Valley to 5,000 feet elevation. It is partial to cliffs and crevices of carbonate rock, a habitat type that attracts relatively few, discerning plant species, but quite a few discerning botanists.

Wildflower Exhibit

Friday, April 10th – Sunday, April 12th

Each spring, the Maturango Museum hosts a Wildflower Exhibit featuring wildflowers that grow in the Indian Wells Valley and Eastern Sierra Canyons. Typically, over 200 different species are showcased in the Maturango Museum's Coso Room, filling the air with sweet smells! This annual event allows the visitor to see wildflowers that grow in this area without having to travel to multiple locations over many dirt roads.

The 2026 Wildflower Exhibit will be held Friday, April 10 – Sunday, April 12. Come see the unique variety of desert wildflowers!