



NEVADA NATIVE PLANT SOCIETY

Letter from the President

2024 was a busy and exciting year as we continued to rebuild after Covid. We hosted more in-person meetings, field trips, and outreach events than in 2023. A major highlight was the appointment of Marcus Hooker as the Herbarium Manager for the Wesley E. Niles Herbarium at the College of Southern Nevada in Henderson. Marcus has been hosting the monthly meetings, specimen mounting sessions, and organizing the first field trips for the southern region in quite some time. The College of Southern Nevada was also the venue for the Rare Plant Meeting, led by Board Member Joshua Lovera.

In April, we launched our new website! While still a work in progress, it has helped us grow our memberships, share events, and sell the special 2025 Calendar and the newly reprinted *Wildflowers of Northeastern Nevada* by Mary Winter. These efforts - along with programs and this newsletter - are made possible by volunteer contributions from our members.

As an all-volunteer organization, our shared love of native plants and desire to stimulate appreciation of them is the driving force behind the society. Thank you to everyone on 'team plant' who made 2024 so successful! I also want to extend my gratitude to outgoing Board Members Ranae Sullivan, Kris Kuyper, Janel Johnson, Jamey McClinton and Gail Durham for their valuable contributions and look forward to seeing them at future events. Meanwhile, we welcome Cody Brock-Ernst, Cory King and Esther Hwang to the 2025 Board and I thank Alison Agneray for stepping into the position of Vice President.

2025 is a milestone year, marking the 50th Anniversary of our founding. The inaugural meeting was held on April 17, 1975, in the Fleischmann Agriculture Building at UNR. Founding sponsors Ann Pinzl and Jerry Tiehm are still members today! Throughout this special year, we will celebrate the contributions of our members and the preservation of Nevada's native flora while also planning for the Society's next 50 years.

Our 2025 calendar kicks off the celebrations by featuring Nevada plants named after our members. The newsletters will feature interviews with key members and nostalgic blasts from the past. There will be a special anniversary meeting in April, as well as field trips to some of our favorite locations. Announcements will be shared via newsletters, the website, and our Facebook page. As always, meetings and field trips are open to non-members, so invite your friends and neighbors to join! We will also be polling members during the year to find out your interests and priorities for the Society's future.

Our native plants are the foundation of healthy and diverse ecosystems, and spreading awareness and appreciation for plants and their preservation is central to our mission. If you would like help us share native plant love, we'd be thrilled to have you join our team. We can always use committee members, field trip leaders, and outreach volunteers. Email me at president@nvnpns.org to get involved.

Happy Botanizing!
Emma

A chat with Dr. Jim Morefield: Where has all the time filagone?

by Lily Rice

On a warm and sunny day in Reno, Nevada, I made my way to meet Dr. Jim Morefield - a now retired botanist with over 31 years of public service - at the University of Nevada, Reno's Herbarium where he volunteers. The Herbarium sits in the backrooms of the Natural History Museum and boasts an impressive collection of over 109,000 plant specimens: a fitting place to interview a great systematist. When I arrived, Jim, as he prefers to be referred to, was bent over several specimens of *Artemisia*, which were new collections in Nevada. Even in retirement, Jim continues his important work.

Jim, despite his years of hiking in tough terrains, still stands impressively tall, giving the impression he could still summit any peak, given the challenge. We quickly began introductions, and I discovered his stature belies his disposition: quiet and reserved, as if he is always in deep thought.

Jim received his doctorate at Claremont Graduate University in 1992 with his work, "Evolution and Systematics of *Stylocline*." He has spent much of his life becoming an expert on that genus, and more broadly an unofficial tribe that he and other experts call the "*Filago* group." A small group consisting of roughly 11 genera, including *Stylocline*, the *Filago* group is described morphologically by the presence of receptacular paleae, which often enclose the female florets (Galbany-Casals et al. 2010). I was able to see a member of Jim's lifelong specialty after I asked him "Do you have a favorite Nevada native plant?" Of course, this is always a difficult question to ask any botanist; almost like asking a parent of nine to choose their favorite child, so he answered in kind.

Jim: "So I have a couple of pat answers, and then I'll show you a real answer. The first pat answer is the last one I looked at."

Lily: "Haha, I like that."

Jim: "The next pat answer is the next one that I've never met before, of which there are still many. But... if I had to pick one, I'll go grab it."

It was at this point Jim stood up and disappeared between the stacks of herbarium sheets. Moments later, he returned with a folder labelled, *Stylocline psilocarphoides*.

Jim: "It's the first [*Stylocline*] I ever encountered... on the California side of the White Mountains."

On the herbarium sheets were pressed and glued specimens only a few centimeters tall. Almost half the height was just the roots.

Jim: "What really piqued my interest is that up until that time, it was only known from the type collection in Southeastern Oregon and had never been documented anywhere else... It has always been confused with other species of *Stylocline*... I've always had a special place in my heart for the little inconspicuous desert annuals that have somehow managed to survive."

This is what it's like talking with Jim. A tall and imposing figure juxtaposed by an adoration for minute and overlooked plants. The adoration for Nevada flora spills over to our discussion on the impact of invasive species.



Stylocline psilocarphoides. ©Jim Morefield



A young Jim Morefield with *Castilleja*. ©Mark Egger

Lily: “How have you seen the landscape of Nevada change over the past 50 years?”

Jim: “Unfortunately, mostly for the worst. Invasive cheatgrass is my favorite one to hate... I mean, the most positive thing I can say about the landscape is that most of it hasn't changed. Same old beautiful Nevada that I remember from before. If we're talking about, you know, non landscape aspects, I'd say there's been positive progress in awareness of native species and rare species in particular, their attention to their conservation.”

Lily: “How has public interest in native plants changed since the Nevada Native Plant Society began?”

Jim: “Public agencies responsible for land management [are] becoming more aware of native plant issues, but in terms of just general public interest, I'd say that it's been on a general upward trajectory... This is probably, over the past couple of years, the biggest influx of new blood in the society that we've seen for decades at least.”

We each have our own rationale to join the Nevada Native Plant Society. For myself, it was because a current member saw me working for the USFS in the field and invited me to come. I wanted to learn more about Nevada native flora from a community of

experienced naturalists. For Jim, his involvement was more formal.

Lily: “When did you first start getting involved with the Nevada Native Plant Society and what was your inspiration to join?”

Jim: “So, my inspiration to join came when I moved to Nevada to take the job as the botanist for the division of natural heritage in 1991...it was also expected that whoever the botanist for that agency also served as the rare plant chair for the Native Plant Society. So, yeah, I kinda joined by default in a sense.”

Following this, Jim began to describe some of the early history of the NNPS. In the early years, it was called the Northern Nevada Native Plant Society, and a separate Southern society based out of Las Vegas formed later in the 1990s. Soon after, in the early 2000s the two merged and the modern NNPS formed. With this spirit of remembrance I moved on to the next question.

Lily: “What is your most cherished memory from your time with NNPS?”

Jim: “I think what sticks in my mind most is the period during which I was serving as an officer, either president or vice president... I got to bring my kids along. At the time, they were...in the 8 to 12 age range at the time, so they were little sponges soaking it all up.”

Lily: “Yeah, it helps to start them young... Were there any big projects that were going on at the time that you can remember?”

Jim: “Yes. The one I was involved in most was the checklist of the Spring Mountains; Wes Niles was an author on it. I did a lot of editing on that particular volume of journal *Mentzelia*. So that was kind of fun.”

To wrap up our conversation I asked him a series of questions that I like to ask any botanist I get a few hours alone with. The first, an ongoing debate within systematics, how taxonomic groups should be organized when there’s a discrepancy in relatedness. An argument that goes back all the way to Charles Darwin in the classification of species (Darwin 1857).

Lily: “Ignoring the false dichotomy for a second, when it comes to systematics, are you a lumpers or splitter?”

Jim: “At the genus level, I am definitely more of a splitter. I like to have smaller and more informative genera... but I still hang on to *Chamaesyce* as a monophyletic piece of *Euphorbia* and refuse to admit it... at the species level, I’m more of a you know, show me the evidence person.” A very reasonable and measured response. At this point in the interview I should expect nothing else. Before

our conversation ended, I wanted to pick Dr. Morefield’s mind on entering a life of botany work.

Lily: “What advice do you have for young botanists like myself who want to make a career in this field?”

Jim: “I guess the best advice I could come up with is just do it. Okay? Just do it.”

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White Mountains & Boundary Peak. ©Jim Morefield

Blast from the past: “Impressions of Nevada: A British Perspective on the Desert Landscape” from 1978

by Alison Agneray

As we kick off our special series to help celebrate the 50th anniversary of the Nevada Native Plant Society, I want to first revisit the work of H. Dwight Ripley, a colorful English botanist and artist whose writings offer a delightful perspective on the charm of Nevada’s landscapes. His excerpts were reprinted in the spring 1978 as NNPS Occasional Paper No. 3 and I recommend reading the article in its entirety, but here I will note my favorite highlights from the paper.

Ripley clearly appreciated Nevada’s plants as unique treasures each adapted to their harsh environment. As an English gardener, he marveled at species that seemed to defy cultivation, such as *Arctomecon californica*, the much loved Las Vegas bear-poppy, writing its “bluish leaves, clothed in long pale hairs, sit comfortably on beds of alkaline clay as white and stodgy as nougat.” However, despite “the charms of this plant,” it shows a stubborn “refusal to grow in anything but a gumbo flat”, concluding, “with an *Arctomecon* there’s really nothing you can do [to cultivate it] unless, having first installed an air-conditioning plant, you are willing to reproduce, under glass, a bed of deep imported gypsum charged, of course, with the correct ratio of unwholesome salts. No. *Arctomecons* are not for the English garden. Yet one never altogether gives up hope...”

His writing transforms these plants from static specimens into characters playing out a live drama in the desert, calling the *Holmgrenanthe petrophila* he found in Titus Canyon “the undisputed queen of all Antirrhineae.” He described its flowers as “peer[ing] from the stiff rosettes like sumptuous primroses—primroses just opening with the flowers still a little crumpled, of a serene and candid yellow, lighting grottoes and the echoing solitudes of rock with moonlit

pallor.” Even more mundane plants are treated poetically under Ripley’s pen; likening the fern fronds of *Argyroschisma fendleri* to “intricate small pagodas of turquoise filigree.” Ripley’s colorful view further extended to Nevada and its cities, describing Reno during a local plant search as “that Nineveh of the Sagebrush given over to gambling, drinking and the divorce racket, home of nocturnal hubbub and *locus classicus* of the morning megrim. The writer, alas, succumbed, like everyone else, to its fatal lure, and *E. lobbii* var. *robustum* was viewed customarily through a shifting saffron fog with little black dots in it.”

Now, as we commemorate the Nevada Native Plant Society’s 50th anniversary, let us celebrate the curiosity and passion of quirky botanists like Ripley. His vivid accounts, humorous asides, and unflagging enthusiasm remind us why we love Nevada and its extraordinary flora. Here, in the land of “desert massifs” and “alkali flats,” Ripley found not just rare plants but also moments of wonder—and left behind a legacy of words as colorful as the wildflowers he so admired.



Rock Lady, *Holmgrenanthe petrophila*. ©MegZeg, iNaturalist

Bumble bee conservation through community science in Nevada

by Amy Dolan

In the summer of 2024, across 20 states, including Nevada, volunteers headed outside armed with nets, vials, coolers, and cameras to learn about and help bumble bees. These volunteers came from diverse backgrounds: some were biologists, botanists, or ecologists; others were garden or native plant enthusiasts; others were teachers, students, avid hikers, and outdoor enthusiasts. They all joined the Xerces Society's Bumble Bee Atlas community science project to help researchers map and conserve native bumble bees in their region.

Nevada is part of the Mountain States Bumble Bee Atlas, which launched in June 2024 and spans Nevada, Utah, Colorado, and Wyoming. Volunteers were trained by either attending an in-person event or using online resources. After training, they adopted a 50-square-kilometer grid cell and committed to conducting at least two surveys during the summer field season.

The most exciting part was the surveys themselves: volunteers searched for bumble bees for 45 minutes, netted them, placed them in vials on ice to chill and immobilize them (without causing harm), and took a series



**MOUNTAIN STATES
BUMBLE BEE ATLAS**

of photographs of each bee before they warmed up and flew away. The photos and survey data were uploaded to the [Bumble Bee Watch](#) website. In the project's first year, Mountain States Atlas volunteers conducted 177 surveys, observed over 1,700 bumble bees, and documented 23 species across the four-state region. This work will continue in 2025 with even more volunteers and surveys, leading to an abundance of new data.

Why are volunteers venturing out to net bumble bees? Every gardener and native plant lover knows about pollinators — butterflies, bees, hummingbirds, even beetles and bats. We recognize their importance, welcome them into our gardens, marvel at their diversity, and enjoy sharing pictures of them on our favorite flowers. Among them, bumble bees are especially lovable. Large, colorful, fuzzy, and active from early spring until late fall, they are easy to recognize and appreciate. Sadly, a suite of compounding factors have been



Volunteers practice survey protocols bees at a training in Reno, July 2024. ©Amy Dolan, Xerces



Bombus morrisoni, one of six regional species petitioned for ESA protection. ©Creed Clayton, USFWS

working against them, causing drastic declines in their range and abundance. Habitat loss, pathogens, pesticides, competition from non-native bees, and climate change have all played a role. Over the past several decades, researchers have documented alarming declines in once-common bee species. At least 25% of the nearly 50 North American species have experienced population declines, shrinking ranges, or both. In the western U.S., several species haven't been seen in years.

One of the best ways to help bumble bees—and other pollinators—is by providing habitat.

Bees survive exclusively on nectar and pollen from flowers so they need floral resources from early spring until late fall. They often nest in abandoned cavities like rodent burrows or rock piles while queens hibernate a few inches deep in soil, leaf litter, or compost. Maintaining “messy” areas in your yard or garden can provide this vital nesting and overwintering habitat. The best bee habitat is chemical-free, so it's important to carefully consider if and how pesticides are applied.

Unlike many other native bees that love hot and dry conditions, bumble bees are adapted

Nevada's Bumble Bees

19 Bumble Bee Species known from Nevada

- B. appositus*: White-shouldered bumble bee
- B. bifarius*: Two-form bumble bee
- B. centralis*: Central bumble bee
- B. fervidus*: Yellow bumble bee
- B. flavidus*: Fernald cuckoo bumble bee
- B. flavifrons*: Yellow head bumble bee
- B. griseocollis*: Brown-belted bumble bee
- B. huntii*: Hunt's bumble bee
- B. insularis*: Indiscriminate cuckoo bumble bee
- B. melanopygus*: Black-tailed bumble bee
- B. mixtus*: Fuzzy-horned bumble bee
- B. morrisoni*: Morrison bumble bee
- B. nevadensis*: Nevada bumble bee
- B. occidentalis*: Western bumble bee
- B. pensylvanicus*: American bumble bee
- B. rufocinctus*: Red-belted bumble bee
- B. sylvicola*: Forest bumble bee
- B. vandykei*: Van Dyke bumble bee
- B. vosnesenskii*: Yellow-faced bumble bee



Data from Richardson, L.L. 2024. *Bumble Bees of North America Database*
 Taxonomy follows Williams et al. 2024. *Bumble Bees of North America*
 Photos: *B. huntii*, Leah Lewis/USDA-ARS; *B. nevadensis*, Creed Clayton

to cooler, montane environments. This makes the Intermountain West a fun place to observe them! Based on historic data and museum specimens, researchers know of 19 bumble bee species with ranges in Nevada, though taxonomic debates are ongoing and this number varies by taxonomic source. At least three other species' ranges could extend into the state from the north or west and the common eastern bumble bee (*B. impatiens*) could be detected here, though an observation of this species would likely be an escapee from a commercial hive.

Much of the data we have about bumble bees are outdated, dating from Nevada as far back as 1900. But we haven't looked for bumble bees in all parts of the state since some regions are remote, rugged, and difficult for humans to access. Landscape conditions have changed drastically in the recent past due to agriculture, urbanization, drought, fire, and desertification. Comprehensive, up-to-date data on bumble bee distribution, habitat use, and floral preferences are essential for informed conservation efforts.

That's where the Bumble Bee Atlas comes in. This project is all about data collection. The Atlas relies on community science volunteers following a standardized protocol to collect data at a large regional scale. The Xerces

Society for Invertebrate Society is inviting passionate volunteers across the Mountain States to join this community science project for the 2025 field season. Anyone can join; no experience is necessary. Our four-state region is huge with 371 grid cells that need to be surveyed (103 in Nevada) so we need all the help we can get!

To learn more about the project, check out the website at BumbleBeeAtlas.org or contact Amy Dolan, the Atlas coordinator, at mtnstatesbba@xerces.org. If you are unable to conduct surveys yourself, you can still help! Incidental observations of bumble bees can be uploaded to BumbleBeeWatch.org. Anyone can plant flowers, provide habitat, and spread awareness about these important and imperiled insects.

There will be several different opportunities to learn more about Nevada's bumble bees and the Bumble Bee Atlas project over the next few months, including two identical, virtual Mountain States trainings- **March 11 at 5:30 PT** and **April 23 at 5:30 PT**. along with a three-day [Bumble Bee Bioblitz event](#) at Great Basin National Park in June! [Join the Atlas e-newsletter](#) and keep an eye on the [Atlas events page](#) to learn about other upcoming workshops or field trainings as they are scheduled.

Taxonomy class available over spring break

Arnold (Jerry) Tiehm at the Museum of Natural History at the University of Nevada, Reno is offering his fabulous grass class twice over spring break and is now open for registration:

Basic Identification of Grasses, March 24-25 and 26-27, 2025

- Instructor: Jerry Tiehm, UNR Herbarium
- Description: This two-day short course covers the unique taxonomy associated with grasses and some grass-like plants. Basic terminology, dissection skills, and use of a key are critical elements of this class. We will cover not only how to identify grasses, but how to collect and press them for future reference or for the purpose of mailing to others for identification or verification. You can anticipate seeing about 50 different grass genera, along with various "grass-like" plants such as sedges and rushes. This class is for beginner through intermediate agrostologists.
- Cost: \$170 non-student; \$90 student
- Sign up by emailing Jerry, atiehm@unr.edu

Featured Plant: *Pedicularis groenlandica*

by Lily Rice

Pedicularis groenlandica Retz. (WFO 2025), common name Elephanthead Lousewort or Bull Elephant's-Head, is a charismatic perennial herb that remarkably resembles, you guessed it, pink elephant heads. This plant has undergone a couple taxonomic revisions thanks to phylogenetic advances and now sits in the broomrape family, Orobanchaceae, which is composed predominantly of parasitic taxa. Previously it was known as *Elephantella groenlandica* in the Scrophulariaceae family.

The generic epithet, *Pedicularis*, comes from the Latin word, *pediculus*, meaning “lice,” echoed in the common name, Lousewort. This unfortunate title comes from an old farmer’s belief that livestock eating *Pedicularis* would have more lice infestations (Jepson 2025).

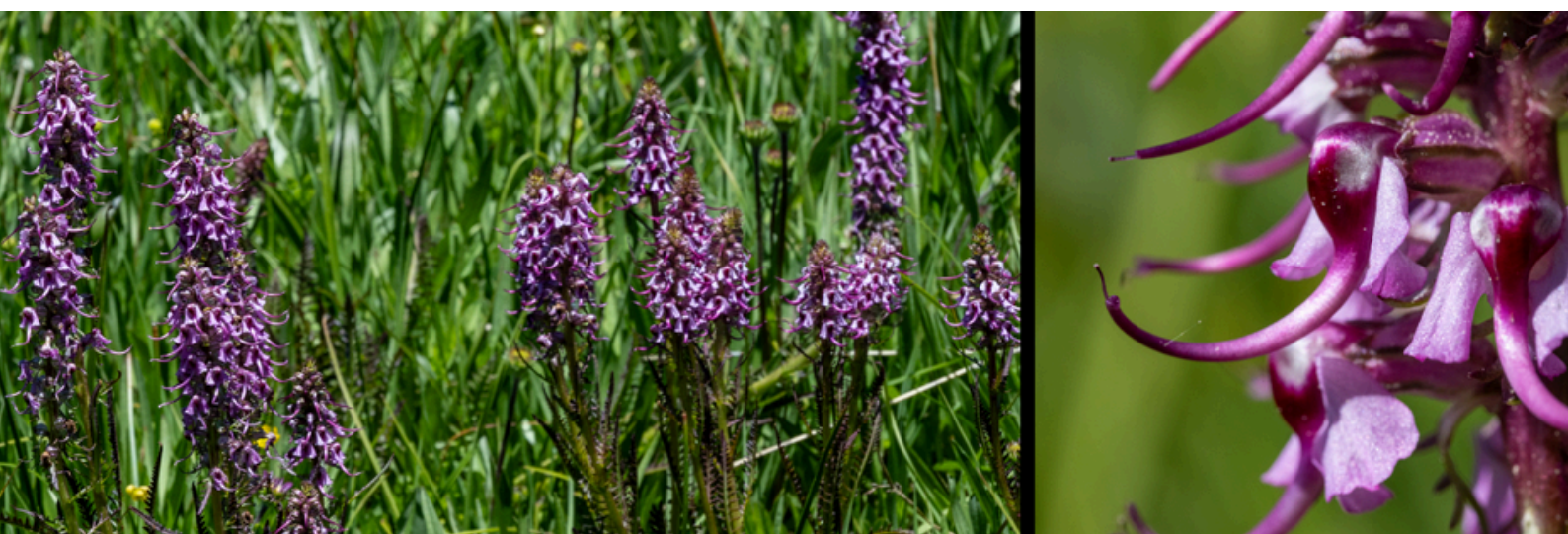
In Nevada, *P. groenlandica* is considered vulnerable (S3), (NatureServe 2025) and can only be found in a few disparate mountain ranges at high elevations. The Ruby & Jarbidge Mountains, along with the Sierra Nevada, house populations at elevations around 8,000-10,000 ft (WFO 2025). Globally, *P. groenlandica* is more abundant. Primarily, its distribution extends through western mountain ranges from New Mexico up into Alaska, with the largest distribution in the Rockies. In addition, the species extends sporadically

eastward through the southern Canadian provinces into Labrador. Finally, a small extant population exists in Greenland (WFO 2025).

Elephanthead Lousewort is an obligate wetland plant growing in subalpine meadows, riparian areas, bogs, and lake margins. While most common at higher elevations, it can be found from 2,000-13,000 ft. Populations at lower elevations are typically coastal or lacustrine wetlands (Jepson 2025).

Like many of its cousins, Elephanthead Lousewort is a root hemiparasite. According to the Jepson Herbarium, it is a perennial herb with alternately arranged, lanceolate, highly divided, pinnatifid leaves growing mostly from the base; the cauline leaves are smaller than the basal leaves. Generally, there is a single racemose inflorescence per plant that consists of 20-70 “elephant-head” flowers (Jepson 2025). Like other members of the genus, the corolla is highly modified, with two lateral lobes composing the ‘ears’ and the other lobes fused into a structure known as a galea, (pronounced: gay·lee·uh) which forms the ‘forehead’ and ‘trunk’ of the elephant.

Reproduction in *Pedicularis* is maintained through the galea, which serves as both a protective structure for the anthers and style, and a trait which their pollinators can act



Pedicularis groenlandica in bloom; note the curved galea that typifies the species. ©Lily Rice



Subalpine meadow habitat of *P. groenlandica*.
©Lily Rice

upon evolutionarily. The shape and length of the galea helps prevent hybridization from sympatric *Pedicularis* species, especially with the common co-occurring *P. attollens* in the Sierra Nevada. The location of stigma contact on the bee can prevent pollen from crossing over to sibling taxa. (Macior 1977). *P. groenlandica*, along with *P. attollens* are pollinated by the same *Bombus* species of the worker caste, who collect pollen from the nectarless flowers using wing vibrations (Macior 1971). In this species comparison, the stigma contacts the back of the bee in *P. groenlandica*, and in *P. attollens* it contacts the forehead (Grant 1994). By having separate points of pollen collection the two species can remain genetically isolated despite sharing pollinator species and having a concurrent bloom time.

As a final authorial note, *P. groenlandica* was my favorite species of 2024. Parasitic plant species are often maligned due to misinformed views about the ecology of parasites. Quite often parasitic species are indicator species of healthy habitats, and they often siphon energy from dominant species in their communities, giving room for less competitive species to fill in the gaps (Hodžić, 2022). Hopefully, this species and its Orobanchaceae cousins give you a grander appreciation of parasitic taxa.

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Left: *P. groenlandica*. Right: *P. attollens*. ©Lily Rice

Blue Lake and vicinity

by Arnold Tiehm

In late August Jan Nachlinger and I were botanizing in eastern Nevada. It was a very dry year which was reflected by the paucity of plants in flower. One stop on the agenda was Blue Lake in Elko County located about 16 miles due south of Wendover on the Nevada-Utah border. Blue Lake itself is well into Utah. There is a small pond in Nevada that we affectionally dubbed Blue Pond. We were interested in the saline and marshy areas near Blue Pond that straddle the state line. They cross the border for about ½ mile and get as far as about 500 feet west of the state line. The area is dominated by *Distichlis spicata*, salt grass, and the wetter areas have large stands of *Schoenoplectus americanus*, olney threesquare bulrush. What brought us there was a previous collection of *Chloropyron maritimum* var. *parryi*, parry alkali birdbeak, made by Art Holmgren on the 24th of July, 1941. His label reads “15 miles south of Wendover on Utah-Nevada line”.

Upon arrival we parked the truck on the saline flats near Blue Pond, walked to the back of the truck, and there was the *Chloropyron*. Wow, this was just too easy. The only other Nevada location for *Chloropyron maritimum* var. *parryi* is in northern White River Valley, White Pine County, SW of Lund. The corollas are distinctly yellow. Nevada is also home to



Blue Pond, Nevada with *Schoenoplectus americanus* and *Distichlis spicata* marsh meadow. ©Jan Nachlinger

C. maritimum var. *canescens*, alkali birdbeak, and we have specimen records from Carson City, Churchill, Douglas, Esmeralda, Humboldt, Lyon, Nye, Pershing, and Washoe counties. Variety *canescens* has corollas that are white or near white with purple markings (Egger & Zharkikh 2022). Both varieties occur in moist, saline habitats.

We soon learned that we had lots of company as hordes of mosquitos and horse flies emerged from hiding. After spraying up, we investigated the area. Growing with the *Chloropyron* was lots of the annual *Suaeda occidentalis*, western seepweed. The edges of marshy areas, on the upland side, had stands of *Allenrolfea occidentalis*, iodine bush. While I was busy pressing plants Jan was imaging the flora and exploring the area. She announced there was a *Salicornia* growing with *Allenrolfea*. *Salicornia* is quite widespread in the Great Basin, grows in saline areas, and its presence here was not unexpected. As I was finishing pressing I asked Jan if the *Salicornia* was annual or perennial. She immediately answered, perennial. It took a few seconds for her answer to sink in. Perennial, perennial, perennial, that must be *Salicornia utahensis* (now treated as *Sarcocornia utahensis*), Utah samphire. I joined her in the *Allenrolfea* dominated areas and sure enough, there was *Sarcocornia*. It formed large patches, had thick, succulent, erect stems, and was in



Salicornia rubra (left) flowers next to *Sarcocornia utahensis* (right) for comparison. ©Jan Nachlinger

flower. The only previous record of *Sarcocornia* from Nevada was a collection made in the same area by, again, Art Holmgren, on the 5th of May, 1939. His label reads “near Utah line, T30N, R70E”. More searching yielded the annual *Salicornia rubra*, red pickleweed. This species is more widespread and we have specimen records from Churchill, Elko, Lyon, Mineral, Nye, Pershing, Washoe, and White Pine counties.

Further investigations yielded one more gem, *Almutaster pauciflorus* (syn. *Aster pauciflorus*), alkali marsh aster. It occurred near the stands of *Schoenoplectus americanus*. Previous Nevada records were from Clark and Nye counties so this added Elko County to the known distribution in Nevada. A database check showed *Almutaster* is widespread in Utah and was previously collected near Blue Lake. Nevada is along the periphery of the distribution of this widespread species which ranges from Mexico to Canada.

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Almutaster pauciflorus flowers. ©Jan Nachlinger

Reprint: A summer of seed successes

by Suzana Bledsoe &
Cassandra Workman from
The Midden

As the high season for Great Basin National Park tapers off, and cooler temperatures begin to settle over the peaks, we, as seed collectors, see a different landscape than many of the park’s visitors. When inflorescences are gone, and previously colorful plants head toward the end of their lifecycle for the year, we become excited for what comes next. Seeds!

2024 marked the first year of a fruitful partnership between the Seeds of Success (SOS) program and Great Basin National Park. SOS is a national seed collection program within the Bureau of Land Management (BLM) that uses partnerships with other federal



The flowers of the flatbud prickly poppy are surprisingly delicate.
©Suzana Bledsoe

agencies, refuges, sanctuaries, and Tribes to provide the best restoration material possible to public lands. Because of the unique geography of the region, Nevada and the Great Basin have highly diverse climates and landscapes. This lends itself to a diversity of native plant species that have evolved to each niche in the high desert. SOS aims to make sure the most well adapted plants go exactly where they will grow best, to make the most of restoration efforts throughout the region.

As technicians for the SOS program, we took part in the first step of this process: seed collection. As soon as it was warm enough, we took off, wildflower chasing, looking for native plants that could help us reach specific ecological goals. Our target plants are selected because they are good at repopulating disturbed areas, such as after mining reclamation or wildfire; stabilizing the soil so that the more finicky native species have a suitable place to repopulate; providing food sources and water retention; and can grow in agricultural settings to increase the availability of their seed.

Our work in the park did not occur until mid-July since much of the park has a markedly higher base elevation, which to us in the environmental sciences, usually correlates to lower annual temperatures and higher precipitation. These factors often push back or extend flowering periods for plants and therefore, seed.

One population we scouted, tracked, and collected in the park this season is *Argemone munita*, or Prickly Poppy. Located in the Lehmen Flat area, between the Wheeler Peak Scenic Drive and the park entrance road, this species has flourished in a prescribed fire site that was part of a fuels reduction project and burned in February of this year. With showy large white petals, and gnarly thorns covering a dusty green colored stem, this poppy was a stunner to find mid-season with bright white flowers swaying in the breeze in the hot summer season. This plant, while not on our target species list this year, fits our goals perfectly, as shown by how happy it is on this

post-fire site.

We completed the “scouting” process, where we estimated population size and life stages of the plant population and made a plan to check back later in the season. Then we waited...until late August. Collecting this population was fascinating as it has other-worldly looking pods and a rattle-like sound when the seeds are dry and ripe. When ready, the pods burst open from the top and their seed shakes out like popcorn in an air popper. This is why timing is key – green seeds mean mold, while over-ripe seeds will be lost to weather, pests, or degradation.

After collecting, we treat the seeds and pods, preventing any insects and pests from moving between locations. Finally, the seed is shipped off to an extractory to be separated from any excess plant material. From there, these prickly poppy seeds may move far, much farther than they naturally would from this post-fire site in an ongoing effort to help restore the lands in the Great Basin.

Editor’s note: This article was submitted by Ceana Olson. For the original article, please follow [this link to The Midden](#).



Prickly poppy seed pods have a unique appearance.
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Society updates

New Year, New Meetings

We are excited to resume our monthly meetings for 2025! Our next meeting is on February 6th, featuring Dr. Lesley De Falco, who will present her research on the imperiled three-cornered milkvetch (*Astragalus geyeri* var. *triquetrus*). Her talk, "Understanding potential barriers to conserving three-corner milkvetch: studies on seed dormancy and ecological interactions," will provide valuable insights into the conservation of this rare species.

Our meetings are hybrid, with two in-person options along with an online offering.

- Northern Nevada: we meet on the 3rd floor of the Fleischmann Agriculture building on the University of Nevada, Reno campus in room FA 300G. Social and refreshments begin at 6:30 PM (PT).
- Southern Nevada: we meet in Building C, Room C230 on the College of Southern Nevada campus in Henderson. Refreshments will be available at 6:30 PM in the Niles Herbarium (Building A, Room A125), and the meeting will begin at 7 PM. Parking is available at the College Drive lot.
- Zoom: Members will receive an email to register for the online meeting closer to the date. Note: I recommend registering for Zoom meeting to receive a copy of the recording afterwards, so you can watch it later if you can't attend.

Special reminder to renew your membership

It's time to renew your membership if you haven't already for 2025! About 30 members still need to renew before the April 1st deadline—after that, inactive members will be removed from the membership list. To renew online, visit our website and click the JOIN button in the top right corner. You can renew using any credit card, and you have the option to set up automatic renewal for future years. If you prefer to pay by check, please make your payment out to "NNPS" and mail to: Emma Wynn 6170 Rouge Drive; Reno, NV 89511

Reno area field trip planning

As we gear up for the 2025 season, our Northern Nevada field trip coordinator, Christopher Mackessy is hosting a field trip planning meeting on February 22 at 12pm at the Sierra View Library (4001 S Virginia St, Reno, NV 89502). For questions on field trips, you can reach Christopher at trashpandapermaculture@gmail.com

Welcome to our new members!

A special thank you to our 8 new members who joined in the last two months:

- Ian McCowen, Reno, NV
- Michael Pero, Newberry Park, CA
- Veda Keefe, Fernley, NV
- Carolyn McElhany, Sparks, NV
- Peter Weisberg, Reno, NV
- Hansel Hallman, Ely, NV
- Kunyu Zhang, North Las Vegas, NV
- Lisa Pinero, Glendale, CA

Final notes

If you are interested in having your work featured in the newsletter or if you have any comments, please reach out to Alison Agneray, Newsletter Editor. Newsletters are published six times per year in even-numbered months and distributed only to active NNPS members.

As always, thank you for your dedication to the Nevada Native Plant Society! Your continued support makes it possible for us to fund research grants, publish our newsletter, and organize field trips to explore Nevada's native flora. Thank you for being part of our community!

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