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## President's Message



Hello everyone! I hope you've been having an enjoyable and productive summer. Where I live in Utah we've had the hottest July on record (breaking a record set just a year ago) but a better-than-average monsoon season so far. I hate to jinx us, but from a "glass half full" perspective this year may not have been as disastrous for restoration efforts at it first appeared. Fingers crossed.

In chapter news, I was very pleased by the response to our call for proposals for the Summer Student Research Awards. We were able to provide three students with funding in support of field research, For details about the winning projects, see the article on page 2 of this newsletter. We've invited each of the awardees to present results of their work at our annual meeting in 2023.

Right now, we expect that meeting to be held in person, taking place at Boise State University on Tuesday, March 21, 2023. Thanks to Trevor Caughlin for stepping up as meeting host! It will include a morning scientific session with talks and posters, a lunchtime business meeting, and afternoon field trip. As we've done a few times in the past, the event will be in conjunction with the Great Basin Consortium (GBC) meeting, scheduled for Wednesday, March 22. Because many of us belong to two or more of these Great Basin-wide partnerships, the GBC meeting will also provide time for meetings by the Great Basin Native Plant Project and Great Basin Fire Science Exchange.

Also, I've been impressed with the enthusiasm shown by the student chapters affiliated with SER-GB. Recently I attended a meeting of the Utah State University student organization as they planned for a series of activities including a small grass, forb, and shrub restoration project at a rare plant preserve operated by a Cache Valley land trust, a seed-collecting hike, and assisting an ongoing beaver restoration effort. Judging by the email traffic I'm seeing, I'm sure the UNR and BYU chapters will have equally exciting activities planned for the coming year.

## Summer Student Research Award Winners

## University of Nevada Reno's Make a Difference Day

Laura Shriver, Aramee Diethelm, Ranae Zauner, Otis Clyne, Tessa Bartz, and Dr. Beth Newingham

In early June we sent checks to three ecological restoration graduate students to support their summer field research. Students were able to apply for up to \$1,000 to help them pursue their scientific goals. The selection process wasn't easy, as we received applications from 12 students from students at eight different universities, all of whom shared interesting research ideas. The award winners, and their study topics, are:

*Cathy Silliman*, University of Nevada-Reno, "Testing assisted population migration in Great Basin restoration"

*Francisco Chavez*, Cal Poly Humboldt, "Non-destructive age estimation for *Artemisia cana* and *Artemisia arbuscula*"

*Arden Engel*, Boise State University, "Interactive effects of mycorrhizal community structure and soil moisture on Wyoming big sagebrush performance"

All three have been invited to present results of their research at our SER Great Basin annual meeting to be held in **Boise in March 2023**.

The University of Nevada, Reno's Restoration Ecology Club celebrated the *Society for Ecological Restoration's Make A Difference Week* with a weeding day at the [Rosewood Nature Study Area](#) in Reno, NV. This area is a former golf course, which the non-profit Truckee Meadow Parks Foundation (TMPF) is working on conserving and restoring. They are focused on the wetland and upland habitats in the park, as well as engaging the local community with demonstrated restoration progress. TMPF hosted the 2021 *Make A Difference Day* celebration, and the Restoration Ecology Club toured their property in the spring semester. In June 2022, we made a difference by hosting a "pollinator garden tea party", educating the public on pollinator identity, the benefits of native plants in pollinator gardens, and weeding the native plant pollinator garden at Rosewood.

Restoration Ecology Club members Aramee Diethelm and Charlene Duncan staffed an education booth where visitors could learn about pollinators, the plants in Rosewood's pollinator garden, and about restoration ecology (Figure 1). Many people visit Rosewood for nature walks, biking, and fishing, and several stopped at the booth to see what we were doing.

One of the highlights of the day was teaching a teenager that there is much more bee diversity in Nevada than just honeybees, and that many of Nevada's native bees are solitary and ground-nesting.

Elena Larsen, Rosewood's Wetland Restoration Program Director, and club member Laura Shriver took the lead on weeding the pollinator garden, and teaching visitors the differences between the weeds and the native plants (Figure 2). We pulled up several wheelbarrows worth of weeds, including *Salsola tragus*, *Kochia scoparia*, and *Descurainia sophia* (Figures 3-4).

Lastly, no article about a pollinator garden would be complete without writing about some of the native plants grown there. The Rosewood Nature Center's pollinator garden has a wide variety of native plants, including *Gaillardia pulchella* (Figure 5), *Penstemon eatonii* (Figure 6), and *Stanleya pinnata* (Figure 7). We are happy that we were able to help make more room for the native plants to grow and thrive and for the pollinators and public to enjoy them.

We are looking forward to organizing more field trips and volunteer days this fall semester, and we are always looking for speakers, places to visit, and volunteer opportunities

for our members. You can reach us at [RestorationEcologyUNR@gmail.com](mailto:RestorationEcologyUNR@gmail.com) and be sure to follow us on Twitter [@UnrSer](https://twitter.com/UnrSer).



Figure 1. Aramee Diethelm and Charlene Duncan staffing the education booth at Rosewood



Figure 2. Volunteers pulling weeds in the pollinator gardens at Rosewood



Figure 3. Laura Shriver holding a large pile of weeds.



Figure 4. A young and enthusiastic volunteer showing off the long root he dug up of a *Kochia scoparia*.



Figure 5. *Gaillardia pulchella* growing in the Rosewood Nature Study Area's pollinator garden.



Figure 6. *Penstemon eatonii* growing in the Rosewood Nature Study Area's pollinator garden.



Figure 7. *Stanleya pinnata* (left) and *Gaillardia pulchella* (right) growing in the Rosewood Nature Study Area's pollinator garden.

Hint: Many Seeds of Success collections of this species are made in August.

## Name That Seed

Corey Gucker, USFS Rocky Mtn. Research Station



**Figure 1.** Enlarged photos of cleaned seed (achenes). Seeds are about 2 to 5.5 mm long. Photo: U.S. Department of Agriculture, Forest

This perennial forb species occupies an elevation range of 660 to 11,500 feet and is common on dry, shallow, and gravelly soils. It grows where the annual precipitation averages 14 to 20 inches. Plants are long-lived and produce deep, large, partially woody taproots that reach up to 15 feet deep. Plant growth begins in early spring. Seed is often mature by July or August. Plants are early colonizers of disturbed sites and although seedling vigor is considered low, survivors can become long-term community players.

It is important to a variety of pollinators, beetles, harvester ants, and other beneficial insects. It serves as a larval host for several butterflies: blue copper (*Lycaena heteronea*), western green hairstreak (*Callophrys affinis*), Sheridan's hairstreak (*C. sheridanii*), Cascadia blue (*Euphilotes* spp.), and lupine blue (*Plebejus lupini*). This species provides important food and cover for many wildlife and livestock species including elk, mule deer, mountain goats, pygmy rabbits, northern pocket gophers, and domestic sheep and cattle.

Wildland seed can be collected by shaking, hand-stripping, or beating flowering stems over a container. Seed generally matures over a wide window and is typically collected in July and August. Seed is ready for harvest when flowers are dry and rust colored. Mature seed is retained on the plant for up to 3 weeks. Good seed crops are reported in most years and even in some dry years, but a portion will likely be insect damaged. Large collections are recommended when possible.

# Name That Seed cont'd.

Based on field growth trials, good seed production for this species is reached once stands reach two years old. Stands produce harvestable seed crops for up to six years. Plants generally grow well when seeded with shrubs, grasses, and other forbs, but its growth can be limited if seeded with aggressive perennial grasses in a wildland setting.

**Answer:** See the last page of the newsletter.



Field of this species near the BLM and TNC Hixon-Sharp-tail Preserve Area. Photo: Anne Halford, 2019

## Upcoming Trgs., Research and Conferences

### Training

The National BLM Plant Conservation and Restoration Program and the Society for Ecological Restoration just launched a virtual 5-module Arid and Semi Arid Lands Seed Technology and Restoration Course that is available on DOI Talent. If you are not a DOI employee you can register for the course by filling in an account request form by contacting Kelly Aiken at the National Training Center— [kakin@blm.gov](mailto:kakin@blm.gov).

**Official Course name:** Arid and Semi-Arid Lands Seed Technology and Restoration Course

**Course Description:** This self-paced on-line course is intended to serve as an introduction to seed technology and arid and semi-arid lands restoration as a first step towards more in-depth in person restoration and revegetation courses

**Course Objectives:** By the end of the course, participants will have an understanding of: Ecological restoration principles, standards of practice, and concepts to increase the success of restoration efforts, arid/semi-arid ecosystems and the challenges they pose to successful restoration, and how to apply ecological restoration best practices and concepts in restoration planning in arid and semi-arid ecosystems.

**Required Prerequisites:** None

**Dates/Times:** This is a self-guided course

**Cost (if any):** None

**Availability** (# of students allowed) - unlimited

**Target Audience:** Natural Resource Specialists, Fire, Fuels, Emergency Stabilization and Rehabilitation, Botanists, Wildlife Biologists, Ecologists, Range, Minerals, Mining and Reclamation.

### Research

*Opportunity for Public Engagement in Wildfire Research: Desert Research Institute and University of Nevada, Reno—Project #Ashfall*

Project #Ashfall is a citizen science initiative to shed light on the behavior of wildfires, that uses photos of ash from the public to learn about wildfires, and The Desert Research Institute is are hoping to pass information about this project to those who live, work, or recreate in areas that receive wildfire ash. #Ashfall is an opportunity for the public to engage in wildfire-mitigation research, and it aims to provide a step towards protecting lives, property, and natural resources from wildfires.

For context, researchers at DRI and the University of Nevada, Reno are studying the formation of fire-generated tornadic vortices – in other words, fire tornadoes. The size and shape of ash particles in the air affect the radar measurements that are used to understand the development of these vortices. Using the photos of wildfire ash that community members contribute to #Ashfall, researchers match the ash's shape with radar measurements, with the goal of developing a model that can be used to recognize early-warning signs for these destructive events.

**For more information about the project contact;** Sonia Nieminen, Student Intern, Desert Research Institute—[Sonia.Nieminen@dri.edu](mailto:Sonia.Nieminen@dri.edu)

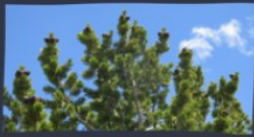
## Upcoming Trgs., Research and Conferences cont'd

### 2022 Whitebark Pine Science & Management Conference "Whitebark Trees to Sagebrush Seas" September 14–16 | Dillon, Montana



#### Sept. 14 | Community Event | Patagonia Outlet

Talk by Dr. Diana Tomback on whitebark pine recovery & exclusive film screening of "The Bird and the Tree" by The Cornell Lab of Ornithology



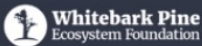
#### Sept. 15 | Main Program | Univ. Montana Western

Featured talks & interactive discussions on whitebark pine research, education & restoration, followed by an evening social with silent auction



#### Sept. 16 | Field Trip | BLM Project Sites

Guided field trip to two BLM restoration project sites to discuss management challenges & WPEF Annual Members Meeting at lunch



The 2022 Whitebark Pine Science and Management Conference will be held September 14–16 in Dillon, Montana. It is hosted by the Bureau of Land Management's Dillon Field Office with support from the Whitebark Pine Ecosystem Foundation. The annual conference showcases the latest research and management activities for whitebark pine and other high-elevation white pines facing similar ecological threats and needs for conservation measures. It brings together researchers, land managers and high-elevation forest enthusiasts from across the U.S. and Canada to share best practices and resources for restoring these remarkable ecosystems. Join in for three days of engaging events to include a community program, science and management talks, silent auction with dinner, and field trip to two BLM project sites. The event is free and open to the public with a suggested donation only.

To learn more and to register go to: <https://bit.ly/2022-WPEF-Conference>

**Name that Seed Answer.** Parsnipflower buckwheat (*Eriogonum heracleoides*). Learn more about this species and other native forbs useful for Great Basin restoration in the online book, [Western Forbs: Biology, Ecology, and Use in Restoration](#). Photo on Page 6—Parsonflower buckwheat plant growing in Utah. Photo: USDA, Forest Service, Rocky Mountain Research Station, Shrub Sciences Laboratory, Provo, UT.