



Newsletter of the Idaho Native Plant Society Promoting Interest in Idaho's Native Flora

Idaho Botanical Foray 2016: Salmon-Challis National Forests, Little Lost River Drainage

By Dr. Rick Williams, Janet Bala, and Pam Reschke

Each year herbarium staff, students, Idaho Native Plant Society members, and friends come together for a long weekend to survey and collect plant specimens representing different regions of Idaho at the Idaho Botanical Foray. This is an opportunity for amateur and professional botanists to work together and enjoy the company of other native plant enthusiasts. This year, the Foray was held June 16–19. The Mill Creek Campground in the Little Lost River Valley, north of the small town of Howe, and a short distance off the Sawmill Canyon Road, served as base camp for the 2016 Foray. The Little Lost River basin is located in east-central Idaho on the northern margin of the Snake River Plain and flanked by the Lost River Range on the west and Lemhi Range to the east. Nestled in a grove of Douglas fir adjacent to Mill Creek, the campground provided access to a wide variety of habitats, ranging from sagebrush-steppe to alpine. A trail from the campground leads two miles to Mill Creek Lake in a beautiful mountain setting. Looking up at the Lemhi crest we could see Big Windy Peak, 10,390 ft., and Bell Mountain, 11,612 ft. Across the wide valley to the north, towards the Lost River Range, we could see Idaho's two highest summits, Mt. Borah at 12,667 ft., and Leatherman Peak at 12,228 ft. What great views to enjoy and navigate by during the foray!

Dr. Jim Smith (Boise State University) initiated the first botanical foray in 2008, and it didn't take much to convince the other herbaria in Idaho to participate and make it an annual event. Each year a different university hosts the foray by pick-

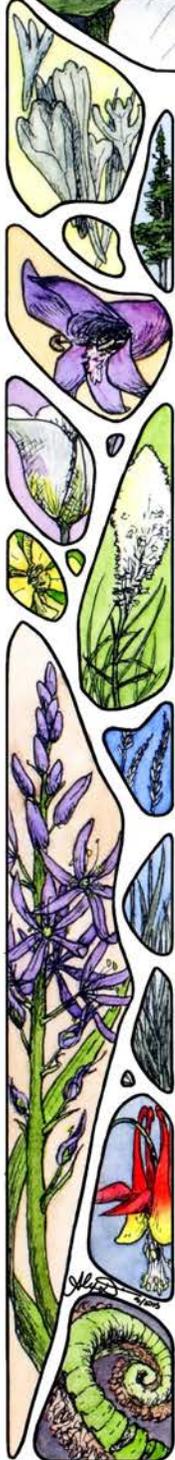
ing the site, making camping arrangements, providing the plant pressing materials, and then identifying and processing the plants after returning from the foray. In 2016, the 9th annual Idaho Botanical Foray was hosted by Dr. Rick Williams and Janet Bala of the Ray J. Davis Herbarium in the Idaho Museum of Natural History at Idaho State University.

The site of this year's foray was chosen to complement and expand on recent floristic work conducted by Jessica Irwin for her Master's thesis at the University of Wyoming. Her knowledge of the unique geology and plant communities of the area helped us choose interesting sites and diverse habitats where we would find good botanizing. With so much area to cover, from Howe to Challis, we concentrated our efforts in the Little Lost River Valley. Several groups dispersed across the valley each day to collect plants from different elevations and plant communities. Each group of 3–5 people collected as many plant species as possible to represent a locality. Enough material was collected

Continued on Page 4

In this issue:

Idaho Botanical Foray 2016.....	1
Announcements.....	2
ERIG Announcement.....	3
Idaho Mystery Plant.....	3
The Discovery of <i>Monardella angustifolia</i>	6
Pollinator Garden at Camas NWR.....	8
Duck Valley Indian Reservation Greenhouse.....	9
Chapter News.....	10



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Announcements

Idaho Noxious Weed Conference

The Idaho Noxious Weed Conference will be held January 18–19, 2017, at The Riverside Hotel in Boise. The conference is sponsored by The Idaho Weed Control Association and is for private landowners and agencies who have responsibilities for vegetation management. Topics will include Invasive Species, Farm Bill, NPDES, Success Stories of CWMAs, Revegetation, Pesticide Safety, Aquatic Invasives, BioControl, Applying for Grants, GIS/GPS Mapping, and more. For more information visit: <http://www.idahoweedcontrol.org/weedconference.html>

Great Basin Consortium Conference

The Great Basin Consortium Conference, "Charting a Course for Rangeland Science in the Sagebrush Biome," will be held February 21–23, 2017, at the University of Nevada, Reno. To learn more and to register, visit the website: <http://greatbasinresearch.com/consortium/conference6.html>

2017 Idaho Native Plant Society Annual Meeting

The 2017 Idaho Native Plant Society Annual Meeting will be held July 14–17. Base camp will be the Living Waters Ranch, located 4 miles west of Highway 93 on Main Street in Challis (3 miles west of the Golf Course).

Registration forms will be in the Spring issue of Sage Notes. The registration fee will be \$20/person. The Living Waters Ranch will provide dinner Friday and Saturday nights at \$11/person/night. We will have a speaker Friday and Saturday nights and our general membership meeting will be Saturday night after dinner.

Proposed field trips include: Railroad Ridge, Bay Horse Lake, Chilly Slough, Malm Gulch (we plan on having a geologist with us for this one), Road Creek, Herd Creek, Bay Horse Ghost Town State Park (a ranger may lead this one). If you are interested in being a field trip leader, contact Bill Bridges at (208) 293-2426.

Make your own reservation with the Living Waters Ranch: Tents: \$12/day; RV: \$15/day; RV with full hook-up: \$18/day; Bunk House: \$14/day; Motel rooms 2 twin beds: \$48/day; Chalets 2 or 3 bedrooms with kitchen: \$110/day; Mini Lodges: 8 bedrooms, each with 2 twins or a queen bed and private bath, large kitchen, \$66 per room, 5 rooms minimum.

Living Waters Ranch, PO Box 1190, Challis, ID 83226
(208) 879-2888, lwrinc@custertel.net, Website: www.livingwatersranch.org

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Call for 2017 Education, Research, and Inventory Grant Proposals

The Idaho Native Plant Society (INPS) is soliciting proposals for its Education, Research, and Inventory Grant (ERIG) program. Grants of up to \$1,000 will be awarded in 2017 to support projects that contribute to the appreciation, conservation, or knowledge of Idaho's native flora and vegetation. The purpose of the ERIG program is to stimulate and lend support to educational, research, and conservation activities that promote an appreciation for native plants and plant communities in Idaho. The ERIG committee encourages you to submit a proposal if you have a project that may qualify. The deadline for submitting a proposal is March 31, 2017.

Grant guidelines. The ERIG program is intended to support direct project costs. Grant proposals should not include expenses for salary and personal benefits, the purchase of personal equipment, or other expenses not essential to the project. Here are some examples of costs the grant may cover:

- Direct costs of travel, meals, and lodging for the project.
- Supply and service expenses used for the sole purpose of the project (e.g., native plant material, interpretive signs, lab materials).
- Printing costs for public outreach material or research publications.

Application procedure and requirements. Proposals should contain the following information:

1. Project title.
2. Contact information—name, address, phone number, organization/affiliation, and email.

3. Project description—outline the project objectives, methods, and final product. Explain how the project will benefit the appreciation, conservation, or knowledge of Idaho's native flora or vegetation. Describe how project success will be evaluated.
4. Itemized budget—outline an overall project budget, including the amount you are requesting (up to \$1,000), as well as other funding sources.
5. Timeline—please provide a timeline for completion of all major tasks associated with the project, including presentation of the results.

Project proposals must pertain to native plants of Idaho. Please limit grant requests to a maximum of \$1,000, and be aware that less may be awarded due to INPS budget constraints and the number of applications submitted. Recipients of these awards will have a timeline of two years from the date of the written award to complete their projects. Successful applicants will be required to submit a final report to the INPS documenting project accomplishments and a summary of the project to be published in the INPS newsletter, Sage Notes. We encourage applicants to become an INPS member if they are not already, however, membership is not a prerequisite to apply for, or receive an ERIG.

Please submit proposals by email to Janet Bala at balajane@isu.edu or by post to:
ATTN: ERIG Committee Chair
Idaho Native Plant Society
P.O. Box 9451
Boise, ID 83707

Idaho Mystery Plant

This photo was taken by Michael Mancuso in the Salmon River Mountains north of Yellow Pine in central Idaho. What is your guess for this plant? The answer will be revealed in the next edition of Sage Notes. The Idaho Mystery Plant in the September 2016 issue was Evermann's pincushion (*Chaenactis evermannii*), a species in the aster family endemic to the mountains of central Idaho. It occurs on shifting talus and other rocky habitats at mid-to-high elevations.

Have an Idaho Mystery Plant to share? Send it in to the editor: sage-editor@idahonativeplants.org.
— Michael Mancuso



and pressed to make 3–4 duplicate herbarium specimens to be distributed to the participating herbaria. Location, habitat, soil type, and associated species information was



Mill Creek Lake and Star, the dog. Photo by Michael Mancuso.

recorded for each specimen found in the same location, increasing the value of the collections for future botanists. In the course of 3 days, we made approximately 840 plant collections consisting of over 2500 individual specimens, and filled our eight-foot trailer with plant presses.

The Foray attracted 32 enthusiastic participants, including botanists from six universities—Idaho State University, Boise State University, The College of Idaho,



Pressing. Photo by Alissa Salmore.

University of Idaho, Washington State University, and Lewis and Clark State College. We also had members of the Idaho Native Plant Society, U.S. Forest Service, and BLM join us. We collected for four days (Thursday–Sunday), with the largest groups going into the field on Friday and Saturday.

We all saw many very cool plants and habitats. Some exciting collections included: silver chickensage (*Sphaeromeria argentea*), Simpson’s hedgehog cactus (*Pediocactus simpsonii*), Parry’s townsendia (*Townsendia parryi*), Salmon River plains-mustard (*Schoenocrambe linifolia*), many shades of *Castilleja*, dwarf hesperochiron (*Hesperochiron pumilus*), dwarf penstemon (*Penstemon pumilis*), bitterroot (*Lewisia rediviva*),

lava aster (*Ionactis alpina*), limestone draba (*Draba oreibata*), and Great Basin desertparsley (*Lomatium simplex*)! Photos of many of these species can be found on the “Idaho Botanical Foray 2016” project on iNaturalist.org.

Thanks to all participants at this year’s Foray. With your help, we collected approximately 840 plants that will become permanent vouchers in Idaho’s herbaria.



Reed Montgomery and Sam West pressing plants with Jim Smith and Scott Montgomery in the background adding plants to the growing plant press. Photo by Steve Martin.

The Tenth Annual Idaho Botanical Foray will be hosted by Jim Smith, Boise State University, and is scheduled to take place in the Bear Valley area of the Boise National Forest, near the headwaters of the Middle Fork of the Salmon River. Watch for more information about the next foray in upcoming issues of Sage Notes. On behalf of all of the herbaria that participate each year in the foray, we hope to see the same faces and new faces next year as we share and enjoy the great botanical diversity we have in Idaho. •



One of the many colors of *Castilleja angustifolia* that was seen. Photo by Steve Martin.

Hesperochiron pumilus. Photo by Rick Williams.





Group from left to right, front: Chris McCoy, Alissa Salmore & Lily, Liz Martin, Hannah Sanger & Puck, Obie, Barbara Ertter, Allison Billmeyer & Sofie, black lab. Next row, Scott Montgomery, Jim Torrel, Blake Phelan, Sarah Herzog, Pam Reshcke, Wes Bascom, Jim Smith & Prospero, Janet Bala, Rosemary Smith, Rick Williams, Sam West, Bob McCoy, Cole Morrison, Geoff Phelan, Jordan Mitchell, Steve Herzog, Don Mansfield, Evan Hilpman, John Hunt, Rose Lehman, Reed Beckendorf, Mike Mancuso & Star, Beth Corbin. Photo by Steve Martin.

Collecting log by day:

Thursday (16 June)

Pass Creek Road on the drive in from Mackay to Mill Creek Campground. This group visited a variety of habitats along Pass Creek, from the lower canyon to summit and the sage flats in the Little Lost River Valley.

Rick Williams, Janet Bala, Allison Billmeyer, Pam Reschke, Rosemary Smith, Sam West, Reed Benkendorf, Scott Montgomery

North of Mill Creek Lake out of Mill Creek Campground; high elevation, wet, graminoid-dominated meadows up to 8580 ft.

Michael Mancuso

Friday (17 June)

Northwest ridge of Hawley Mountain; from sagebrush to subalpine meadow habitats at 7600 ft.

Rick Williams, Beth Corbin, Rosemary Smith
Grouse Creek and shoulder of Grouse Creek Mountain on the west side of Pashimeroi Valley in the northern Lost River Range (6770-7300 ft. elevation).

Don Mansfield

Dry Creek Valley flat below slope with juniper (*Juniperus* sp.), limber pine (*Pinus flexilis*), and mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*). Also, sagebrush flats, rock outcrop slopes, summit areas, and a wet meadow habitat in the Donkey Hills.

Jim Smith, Sarah Herzog, Jeff Phelan, Blake Phelan
Wetlands and nearby uplands associated with Summit Creek, including the Barney Hot Springs area.

Michael Mancuso, Reed Benkendorf, Scott

Montgomery, Sam West

Doublesprings Pass to Horseheaven Pass – *Pinus flexilis*, mountain mahogany (*Cercocarpus ledifolius*), and frigid sagebrush (*Artemisia frigida*) habitats, and other calcareous rock slopes.

Janet Bala, Allison Billmeyer, Jordan Mitchell, Cole Morrison

Head of the Little Lost River Valley; hummocked alkaline seepage/wetland areas.

Barbara Ertter, Pam Reschke, John Hunt

Meadow, ridgetop and steep slope habitats in the Timber Creek and Bear Creek areas. Also, the Little Lost River riparian zone.

Bob McCoy, Chris McCoy, Evan Hilpman, Liz Martin, Wes Bascom

Saturday (18 June)

Williams Creek Road; steep east-facing slopes and along Dry Creek.

Jim Smith, Allison Billmeyer, Reed Bendendorf, Sam West, Scott Montgomery

Mill Creek Lake and trail; riparian and boggy areas.

Rick Williams, Rosemary Smith, and Pam Reschke
Quartzite outcrop at the mouth of Sawmill Canyon just west of Sawmill Creek on the west base of the Lemhi Range and a riparian area along Sawmill Creek.

Don Mansfield, Bob McCoy, Evan Hilpman, Liz Martin, Wes Bascom

Timber Creek Pass; including high elevation ridgeline, whitebark pine (*Pinus albicaulis*) woodland, and moist to dry meadow habitats.

Michael Mancuso, Alissa Salmore, Hannah Sanger
Rocky ridges and slopes in North Bird Canyon, (Bird Creek Canyon).

Stephen Love, Monaquita Love, John Hunt, Geoff Phelan, Blake Phelan, Cole Morrison, Jordan Mitchell

Lower North Creek canyon on the southwest flank of the Lemhi Range; a shrub and tree-lined stream in the sagebrush zone with historic & active mining.

Barbara Ertter, Beth Corbin, Sarah Herzog, Jim Torell

Sunday (19 June)

Dry Creek Road a few miles from the intersection with Pass Creek Road. Also, steep slopes above Dry Creek and along the creek.

Jim Smith, Beth Corbin, Bob and Chris McCoy, Liz Martin, Wes Bascom

The Discovery of *Monardella angustifolia* at Leslie Gulch

By Don Mansfield, The College of Idaho

Leslie Gulch in southeastern Oregon has been a source of botanical curiosity for decades—ever since the new road was punched down Runaway Gulch from the vicinity of Succor Creek in the early 1970s, replacing the old wagon road from Rockville to Watson. Leslie Gulch is a caldera (an old collapsed volcanic eruptive center) containing outcrops of volcanic ash-tuff of assorted colors and is home to several endemic plant species. And just in the past few years, Mark Elvin, Barbara Ertter and I described another new species endemic to Leslie Gulch—*Monardella angustifolia*, narrow-leaved monardella (Elvin et al. 2014). It is reasonable to ask: how can new species still be found? I shall attempt to answer that question in this article by describing the process by which this new species came to our attention and how it came to be described.

The first botanical collection of this plant was made in 1973 by Pat Packard, former College of Idaho biology professor and long-time Idaho/Oregon botanist. It had been collected in nearly every decade since then, too. The plant, in the mint family (Lamiaceae), looks and smells like mountain monardella (*Monardella odoratissima*). Mountain monardella is a common subshrub throughout our region with oval leaves, pink-purple to whitish flowers, and a wonderful fragrance. The Leslie Gulch plants have been included under that species by the authors of the Intermountain Flora, an authoritative treatment whose coverage includes the Leslie Gulch area (Cronquist et al. 1984). That is, the Leslie Gulch plants were considered just an extreme form of that well-known, highly variable species. In variable species like mountain monardella, it is often hard to determine whether certain combinations of characteristics are discrete, that is, with several characteristics all being similar together in only certain locations or habitats, or whether the characteristics vary in the manner of a “smear” (continuous), with no obvious corresponding association with geography or ecology. In the case of the Leslie Gulch plants, do monardellas with narrow, reflexed, and

bundled leaves all occur together in a certain area or in particular habitats, or are they just spread throughout the range of the species, gradually changing from one form to another? If the former, then this may be a new species, isolated from other species and likely breeding only among themselves in a particular place or habitat. If the latter, then these variations are among the many that are just remixing as plants interbreed and make new forms through sexual recombination. Barbara and I had both thought, from the time of our earliest conversations about this Leslie Gulch plant in the mid 1990s, that this

was probably a new species. But without a study of the variation throughout the whole range of mountain monardella from Utah and California up into southern British Columbia, there would be no way to test that hypothesis. And neither of us had the time or inclination to undertake such a study.

Like so many “new” species that are described, there is a long lag between when botanists become aware of some unusual forms and the time that such forms may be described and named as new to science. In fact, the average lag time between first collection of a new plant species and when that species is first described is 24 years (Bebber et al. 2010). In the case of narrow-leaved monardella, the lag time was a bit over 40 years. Specimens of this lovely Leslie Gulch endemic were in-

cluded under the name *M. odoratissima* between 1973 and 2013 when Mark Elvin, living in southern California, contacted Barbara and me asking about these plants while he was working on the treatment of species in the genus *Monardella* for the new Flora of Oregon. In his study of the variation in this genus, he had come to suspect that the Leslie Gulch plants might be distinctive. So Barbara and I, with others, sought new specimens, researched various aspects of the distribution, and corresponded about everything from habitat, location of collections, and associated plant species, to minute glandular hairs on the calyx.

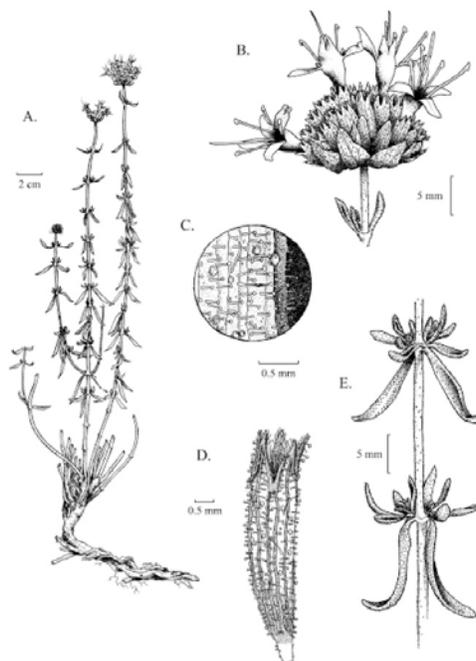


Figure 1. *Monardella angustifolia*—narrow-leaved monardella. A. Habit sketch. B. Inflorescence. C. Glandular hairs on the stem. D. Calyx of the flower showing glandular hairs. E. The opposite leaves, characteristic of the mint family, are narrow, folded, and bundled. Artwork by Alexa DiNicola.

After observing the morphologies of more than 30 *Monardella* species throughout western North America, Mark realized that not only did the narrow, bundled and folded leaves of the Leslie Gulch plants (see Figure 1) distinguish them from mountain monardella, so too did the size of the aromatic glands on the calyx of the flowers and the presence of some additional layers of bracts in the inflorescence. In fact, the plants most similar to our Leslie Gulch populations (a species called *M. eplingii*) occur in the Mojave Desert over 900 km to the south. And that Mojave species, like the new Leslie Gulch species, is restricted to volcanic ash-tuff outcrops! Is that because they both evolved similar morphologies in parallel on similar substrates in distant locations? Resolving one question seems to just lead to more and more interesting questions.



Figure 2. *Monardella angustifolia*, narrow-leaved monardella on Leslie Gulch ash-tuff. Photo by Alexa DiNicola.

So, like the discovery of so many new plant species, the “new” species was under our noses for decades. It just took a keen eye and careful examination of all related specimens to finally realize that a certain, odd-looking form was instead a new Leslie Gulch endemic, joining the group of other Leslie Gulch endemic species including Ertter’s butterweed (*Senecio ertterae*), Packard’s blazingstar (*Mentzelia packardiae*), Owyhee clover (*Trifolium owyheense*), yellow phacelia (*Phacelia lutea* var. *mackenzieorum*), and Grime’s ivesia (*Ivesia rhypara* var. *rhypara*).

While looking for populations of this plant over a larger geographic area, up into the Succor Creek drainage, the College of Idaho Field Botany class of 2013, Alexa DiNicola, Beth Corbin, and I found some additional populations. In the Succor Creek drainage of both Oregon and Idaho there are a few scattered outcrops of the same tan, volcanic ash-tuff that is found in Leslie Gulch. Some

of those outcrops support populations of narrow-leaved monardella, just as one might expect of a substrate-limited endemic species. A third metapopulation of narrow-leaved monardella is known from Chalk Basin, along the west side of the Owyhee River north of Rome, Oregon, with plants found on the same tan, volcanic ash-tuff outcrops. There are other more widespread species that occur on these same relatively barren outcrops in all of these locations, including woolly sunflower (*Eriophyllum lanatum*), snakeweed (*Gutierrezia sarothrae*), narrowleaf wirelettuce (*Stephanomeria minor*), silverleaf phacelia (*Phacelia hastata*), Chambers’ twinpod (*Physaria chambersii*), desert princesplume (*Stanleya pinnata*), Nuttall’s sandwort (*Minuartia nuttallii* var. *nuttallii*), few-flower pea (*Lathyrus pauciflorus* var. *pauciflorus*) which also appears to have a slightly atypical morphology than other populations of this taxon, blue flax (*Linum lewisii*), whitestem blazingstar (*Mentzelia albicaulis*), northern Indian paintbrush (*Castilleja angustifolia*), bitterbrush (*Purshia tridentata*), and Indian ricegrass (*Achnatherum hymenoides*).

Although it is easy to find narrow-leaved monardella on a trip to Leslie Gulch, the limited distribution of this new species puts it in the Critically Endangered category according to criteria of the International Union for the Conservation of Nature (IUCN). Only two locations are known for Idaho. The easiest place to see and smell this plant is along the roadcut 7.3 miles southwest of the Oregon/Idaho border on Hwy 95 between Marsing and Jordan Valley, in the tan-colored outcrop on the east side of the highway. For further reading on the unique botanical curiosities of Leslie Gulch, I recommend Findley (2004). •

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Pollinator Garden at Camas National Wildlife Refuge

By Tim Reynolds, Ph.D., President, Friends of Camas National Wildlife Refuge

Friends of the Camas National Wildlife Refuge received money from the INPS's Education, Research, Inventory Grant (ERIG) program earlier in 2016. One requirement is to submit an article to Sage Notes—this ensures the INPS membership is made aware of projects funded by ERIG and the on-the-ground benefits of the program.

The 50+ year old lawn around the Camas National Wildlife Refuge Headquarters is gone! Friends of Camas National Wildlife Refuge, Inc. (Friends) are replacing it



Bluegrass lawn before project started.

is an all-volunteer, private, not-for-profit organization which fosters environmental education, conservation, and scientific study on the refuge for the benefit of the resources that enrich the enjoyment by the public.

Pollinator species populations, especially bees, are in a precipitous decline world-wide. Monarch butterflies, probably the best known butterfly in North America, have declined over 80% from the 1990s population of 700 million. Some hummingbirds are at alarming low numbers. While many factors influence population numbers of insects or other pollinators, one common element of depressed populations is habitat loss.

Camas NWR is located near Hamer, Idaho, about 40 miles north of Idaho Falls. Established in 1937 mostly for the benefit of waterfowl, Camas NWR covers nearly 11,000 acres of seasonal ponds and shrub-steppe upland at an elevation over 4,800 feet. The refuge is an oasis for many species, including native pollinator species.



ADA compliant pathway installed.

The former Kentucky bluegrass lawn was totally inappropriate for a high desert environment: water inefficient, labor intensive, ecologically meaningless, and

having no conservation or educational value. In its place, Friends has designed a pollinator garden showcasing four plots with different water requirements, raised beds specifically for a milkweed/monarch butterfly study, and a shelterbelt of native trees and shrubs bankrolled mostly by the Idaho Native Plant Society's ERIG program. Other funding was from the CHC Foundation (Idaho Falls), the Scotts Miracle-Gro GRO1000 Grassroots Grant Program, Portneuf Valley Audubon Society, Friends of Camas, U.S. Fish and Wildlife Foundation, and private donors. The Upper Snake Chapter of Idaho Master Naturalists, and Mountain West Products, provided hours of volunteer labor and two dump truck loads of bark mulch, respectively. Pheasants Forever hosted a planting day in which the Hamer Grade School kids broadcast seeded 1.2 acres of buffer area with a native rangeland seed mix. The U.S. Fish and Wildlife Service staff has assisted in every phase of this project.



Tim Reynolds checks the native shrub and tree inventory before planting.

This has been a multi-year effort which should be completed in 2017. Here is the timeline:

- 2014 – Planning and design
- 2015 – Remove part of existing lawn; landscape arid plot
- 2016 – Remove remainder of lawn; install ADA compliant pathway; install underground sprinkler system; construct raised beds for monarch/milkweed study; plant shelterbelt of native shrubs and trees; construct a deer proof fence to protect trees and shrubs; seed the 1.2 acre buffer area; landscape the semi-arid plot; selective fall seeding on arid and semi-arid plots
- 2017 – (Anticipated) Landscape semi-moist and moist plots; complete planting and seeding in all plots and raised beds; install water feature; construct gazebo; develop and display interpretive signs

A formal dedication of the Pollinator Garden is expected in September 2017, during the Friends annual Discover Camas Day. The pollinator garden will not only offer habitat to native pollinators but will allow Refuge staff to use the garden as an educational tool for school groups, boy scouts, refuge visitors etc., to emphasize the importance of native habitats and pollinator species. •

Duck Valley Indian Reservation Greenhouse Project

By Rebecca Hoover, Assistant Greenhouse Manager

The Duck Valley Indian Reservation (DVIR) greenhouse project has multiple purposes and is a partnership



Sagebrush seedlings

between the Tribes, BLM, Elko County School District, and the Native people, especially the youth and young adults. The objective of the project is the development and collection of native plant materials on the DVIR for use in the rehabilitation of public lands and critical habitat destroyed or otherwise adversely affected by wildfires, invasive species, and regional drought. The greenhouse project is an effort to provide tribal youth the opportunity to gain increased appreciation and understanding of our public lands, the value of public service, and to become life-long advocates for these values. The project provides opportunities to promote and stimulate public purposes such



Antelope bitterbrush

as education, job training, development of responsible citizenship, productive community involvement, and furthering the understanding and appreciation of natural and cultural resources. The project also allows us to continue longstanding efforts by the BLM to provide opportunities for public service, youth employment, under-served youth development and training, participation of young adults in accomplishing conservation-related work, and exposure to conservation professionals and careers.

The greenhouse staff works with the Future Farmers of America, Agriculture Science students at the Owyhee Combined School, and the Agriculture teacher (Ryan Carpenter) almost daily during school months to provide hands-on learning experiences. Last year the staff helped kindergarten and first grade students grow flowers for Mother's Day. One goal this year has been to have all grades visit the greenhouse. This will hopefully spark student's interest and persuade them to further their education in the botanical and horticultural fields.

Currently we have three, 30 x 60-foot greenhouses in various stages of operation and production. Two of the

greenhouses are full of sagebrush seedlings for restoration purposes. The third greenhouse is used to grow vegetables and where the staff performs all of their experiments. It is also the greenhouse everyone finds exciting. Students have grown many varieties of tomatoes and peppers, and other fun vegetables such as lettuce, watermelon, onion, and even kale in this greenhouse. Produce from this greenhouse is sold locally, with much of it also donated regularly to the Senior Center. The staff also grows native plant species such as antelope bitterbrush, blue penstemon, blanket flower, silverleaf phacelia, and common yarrow in this greenhouse. Last year a few students used the greenhouse to grow plants used in science experiments. They all did very well at the science fair, each student winning or placing in their categories! We hope to expand the number of greenhouses in the future.

The greenhouse staff routinely has people bring in seeds for the students to plant just for fun. We have received sequoia, cactus, and Joshua tree seeds that are growing quite nicely. We have also received and are growing taro plants from Hawaii and cotton plants from Georgia. This year, staff assisted in the community hoop house project, growing starter plants that will be for sale. The staff hopes to 'branch out' (pun intended) and grow trees and shrubs such as chokecherry, apple, cottonwood, and perhaps willows—to sell for erosion control projects.



Cotton plants

After attending the Idaho Rare Plant Conference in Boise this past spring, the staff was inspired to start a native plant garden. Together with students, they made it happen, and the plants now look amazing. These native plants have attracted many pollinators. If we are able to leave the vegetable greenhouse doors open, maybe they will pollinate the tomatoes for us. A win win for all! •



Blanketflower in the native plant garden

INPS Chapter News

CALYPSO CHAPTER

When: Meetings are held the first Wednesdays of March, April, May and October at 7:00 pm. Field trips take place during the spring, summer, and early fall months.

Where: Meetings are held in the conference room of Idaho Department of Fish and Game, 2885 W. Kathleen Ave., Coeur d'Alene

Contact: Derek Antonelli, ds.ca.antonelli@gmail.com

LOASA CHAPTER

When: Meetings are held the third Thursday of each month at 7:00 pm.

Where: Taylor Building, Room 248, College of Southern Idaho, Twin Falls.

Contact: Bill Bridges, bridgesbill34@yahoo.com

Upcoming events:

December 15: A Christmas Pot Luck Dinner at Lois Rohay's home in Twin Falls.

January 19: Native Landscapes by Kelley Weston from Hailey, Idaho.

February 16: Use of Native Plants by Tony McCammon, INPS State Vice President.

March 16: TBA

April 20: TBA

June 9–10: The Master Gardeners in Twin Falls are proposing to have a Native Plant conference in Twin Falls on June 9–10, 2017. This conference will be for gardeners in the Magic Valley. Learn how to use Native Plants in your garden. *Friday night:* drive to several gardens in Twin Falls and see what others are doing. *Saturday:* meet 9 am–4 pm at CSI for presentations by several speakers. More news about this event in the spring.

PAHOVE CHAPTER

When: Meetings are held on the second Tuesday of each month from September–April at 7:00 pm. Dates and times are occasionally subject to change. Upcoming meeting information is sent to members via postcard and/or email. Events are also posted on the Pahove Chapter page of the INPS website:

<http://idahonativeplants.org/local-chapters/pahove/>

Where: The MK Nature Center Auditorium, 600 S. Walnut Street, Boise

Contact: For more information about Pahove Chapter activities please visit the Pahove Chapter page of the INPS website, or email Karie Pappani at pahove.chapter.president@gmail.com.

Upcoming events:

January 10: Joanne Michael will give a talk about her trip to Isle Royale National Park and the botany workshops she attended during her visit there—made possible through Pahove Chapter's Education and Enrichment Award. The next Education and Enrichment Awardee will be selected in January for attendance at the 2017 National Native Seed Conference in Washington, DC.

February 14: Presentation by Diane Jones of Draggin' Wing Farm in Boise.

March 14: Movie Night: "A Ghost in the Making" followed by a pollinator presentation by Judy Snow (Chinden Gardeners Club and Bee City USA).

April (TBD): Trish Roller (BLM Seed Coordinator) will give a special member's only tour of the Boise Regional Seed Warehouse.

April 28–29: "Go Native!" Annual Plant Sale—Members only sale on Friday from 5–7 pm and public sale on Saturday from 10 am–1 pm. We have lots to celebrate with the coming of spring in April. Earth Day is April 22 and Arbor Day is April 28. In addition, Native Plant Appreciation Week is officially recognized during this time. Please consider volunteering and/or attending during our annual native plant sale event.

Welcome to a new Pahove Board member

Ray Corbin comes to the Pahove Chapter board via the real plant person in the family, Beth. A retired 34-year employee of the U.S. Forest Service, his career was both in forestry and law enforcement. Ray's career included forests throughout northern California, Utah, Idaho, Nevada, and a bit of Wyoming. Retired for 8 years now, Ray keeps busy with building projects, volunteer work, and supporting the local craft beer industry. Although not a botany nerd, he enjoys plant trips and the chapter's monthly meetings. Ray's position on Pahove's board is member-at-large. Pahove board members and the chapter membership are very grateful to have Ray's service.

Board position opening

Pahove chapter is seeking a new board president. The current president, Karie Pappani, has served the chapter exceptionally for 5+ years, and the time has come to select her successor. Interested individuals are encouraged to contact the board at pahove.chapter.president@gmail.com.

SAWABI CHAPER

When: Meetings are held the first Monday of the month.

Where: The Wood River Room in the Earl Pond Student Union Building on the Idaho State University campus during the winter months. The meetings start at 7:00 pm with a short presentation of the plant family of the month by Dr. Karl Holte followed by a program presented by a member or guest speaker. Refreshments are available after the meeting.

Contact: Karl Holte at plantprof@live.com, (208) 241-8358.

Upcoming events:

January 9: The monthly program is titled "Exploring the Mojave Desert." Presenter Bob McCoy has been haunting the deserts of the Southwest for years and always has great photos of the plants he finds.

February 6: Stephanie Zorio, a graduate student of Dr. Rick Williams, is tentatively scheduled to speak on her graduate research in Colorado.

March 6: The last winter program is of Craters of the Moon, presented by Dr. Roger Boe. Dr. Boe is an excellent photographer who has been photographing flowers and scenery at Craters for many years.

UPPER SNAKE CHAPTER

The Upper Snake Chapter is currently inactive.

Contact: Rose Lehman, jojorose@cablone.net

If anyone is interested in reviving the chapter, they are welcome to contact Rose.

WHITE PINE CHAPTER

When: Meetings are held once a month except during the summer. Field trips occur most any month. Please check the chapter website at www.whitepineinps.org for events which may be scheduled or finalized after *Sage Notes* is printed; or email the chapter officers at whitepine.chapter@gmail.com.

Where: Great Room of the 1912 Building, 412 East Third St. in Moscow (between Adams and Van Buren)

Contact: INPS, White Pine Chapter, PO Box 8481, Moscow, ID 83843 or whitepine.chapter@gmail.com

WOOD RIVER CHAPTER

When: Meetings are held various weekday evenings beginning at 7:00 pm.

Where: Meetings are held at the Sawtooth Botanical Garden, located three miles south of Ketchum, on Highway 75 and Gimlet Road.

Contact: Cynthia Langlois at cplangloisACRP@msn.com for information about fieldtrips and presentations. Also, check the Sawtooth Botanical Garden website: sbgarden.org for updates on presentations.



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Submissions: Members and non-members may submit material for publication. Relevant articles, essays, poetry, news, announcements, photographs and artwork are welcome. Authors, artists and photographers retain copyright to their work and are credited in *Sage Notes*. Send all submissions electronically to the editor at the link below. Please provide a phone number and/or email address with your submission. Submission deadlines are January 8, April 1, August 1 and November 1.

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