



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

Dr. Wilcox—Army Doctor, Botanist—and His Primrose: Part I

By Barbara Ertter and Carol Prentice, Pahove Chapter

Primula cusickiana, the sole native true primrose in Southwest Idaho, is currently known as Cusick's primrose, but throughout much of Boise's early history it was often called Wilcox's primrose, or even wilcoxiana. The reason why is intertwined with the early history of Boise, and in particular Captain Timothy Erastus Wilcox (1840-1932). While posted as assistant surgeon at Fort Boise, Wilcox evidently became the first Boise resident to make plant collections that ended up in permanent herbaria. Who exactly was Captain Wilcox, why was a doctor collecting plants, and what else did he accomplish? Answering these questions has required significant sleuthing, which has yielded surprising connections with earthworms and condors in Idaho, Confederacy president Jefferson Davis, and interactions with other early Idaho botanists. This will be a three part series telling a story that unfolds about a man, medicine, botany, and war times.

PART ONE: Wilcox the Army Doctor

According to his obituary (Eggleston 1933), Timothy E. Wilcox was born on April 26, 1840, in North Litchfield, New York, and began his medical career in the midst of the American Civil War (1861-1865). After obtaining A.B. and A. M. degrees from Union College in Schenectady, NY, he did a brief tour in the Union Army until contracting typhoid fever, serving under General McClellan. He then resumed his medical training, receiving his M.D. from Albany Medical College in 1864, consisting of two years of study, with the same lectures repeating the second year.

Medical training at this time included a significant botanical component, as the primary basis of the available pharmacopoeia. For example, salicylic acid—the forerunner of aspirin—was extracted from willow bark, and the opium poppy provided a wealth of pain relievers including opium, morphine, codeine, and heroin. Other important medicines originally (or still) derived from plants include quinine, digitalis, and cocaine. Because of this, a doctor needed to know plants and acquire knowledge about their uses, and many of the esteemed botanists of the day were referred to as Medical Botanists (Kelly 1911). A synopsis of lectures at the University of Pennsylvania Medical School in 1863 included "Lectures on Materia Medica and Pharmacy," accompanied by a long listing of plant species such as hops, hemp, and belladonna (Carson, 1863). As further evidence of the vital importance of botany to medicine at this time, the Confederate states published an in-depth book of resources for their lands including "A medical botany of the Confederate States" (Porchner 1863), when they were cut off from outside supplies during the Civil War.

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Letter from the President

I was in New York City for a week this past April to visit family. The tulips and forsythia were flowering, just like in Boise, where I now live. I also noticed dirt or grassy strips along the sidewalk had shepherd's-purse, chickweed, spring whitlow-grass, and common dandelion—weed species common in Idaho as well. Many of the ornamental tree species growing along the curb in residential parts of NYC are the same as found in Idaho's cities. The NYC flora includes approximately 2000 species, two-thirds of them native to the area. My point is that botany exists everywhere, whether on a remote peak in central Idaho, or on a stroll through Central Park in NYC. In either place, plants can amaze us with their tenacity, diversity, and beauty. No matter where you are, plants can help connect you to the natural world. The first blooms of spring are a special reminder of this connection.

Three plant species found in NYC are federally listed under the Endangered Species Act, with many more considered rare, threatened, or endangered at the state level. The INPS Idaho Rare Plant List has well over 400 species, including four on the ESA list, a reminder that plant conservation challenges are also everywhere. One way INPS supports plant conservation efforts is by sponsoring the Idaho Rare Plant Conference. You can learn more about the relevance and accomplishments of the conference by reading Beth Corbin's article in this issue of *Sage Notes*.

Education is an important component of conservation. The Education, Research, and Inventory Grant (ERIG) program is one of the most effective tools INPS has to spread the good word about native plants. Read the article by LaMar Orton for an example of how ERIG funds were used to produce educational brochures for public use at the Orton Botanical Garden.

In addition to sponsoring conservation and education efforts, INPS plays a role in raising awareness that native plants are essential to Idaho's biological and cultural heritage. Thanks to follow-up by INPS member Karie Pappani, Idaho Governor Brad Little proclaimed this past April as Native Plant Appreciation Month. The proclamation recognizes Idaho's rich native plant diversity, the necessity of native plant ecosystems for ecological, aesthetic, and economic reasons, and the numerous roles native plants play in making Idaho a special place to live.

Thank you for being an INPS member. Your membership amplifies the voice and effectiveness of the organization.

Michael Mancuso

INPS President

Announcement

Request for Items for ERIG Auction

Please remember to contribute some irresistible items to the ERIG silent auction. We'll hold this during the Annual Meeting on the evening of Saturday, June 25. You can bring the items with you or ask a friend to bring them or get them to us somehow for us to take to the silent auction. So far we've got some great items, but we could use more. All the money we raise goes toward ERIG grants. Last year the silent auction raised about \$1000, enough to help make a difference.

Announcements

15th Annual Idaho Botanical Foray, July 7-11, 2022, Yellow Pine

WHO: YOU. Botanists of all persuasions will gather in Yellow Pine, Idaho, for the 15th Annual Idaho Botanical Foray on July 7-11, 2022. Whether your interest is professional or casual, whether you are a serious plant collector or just out to learn some of Idaho's marvelous flora and help out in the process, you are welcome to join us in an effort to better document populations of Idaho's native plants.

WHERE: We will camp at the Yellow Pine Campground in Boise National Forest where there will be flagged campsites reserved for our group, or you can find your own vacant site. The campground is just south of the town site of Yellow Pine. To get to this location, find your way on Hwy 55 to Cascade. Just north of Cascade turn east on Warm Lake Road to Warm Lake and continue east on FR 579 to Landmark where Johnson Creek Rd (FR 413) goes north to Yellow Pine. Follow Johnson Creek to Yellow Pine.

WHAT: We will collect plants in both the Boise National Forest (in the vicinity of Johnson Creek and tributaries from the area between Landmark and Yellow Pine and east to the border with the Frank Church River of No Return Wilderness) and Payette National Forest (mostly north and east of Yellow Pine, Stibnite to Lookout Mountain, headwaters of South Fork Salmon River and Big Creek to Big Creek Airfield).

Bring all you need (food, camping gear, etc.) to camp self-sufficiently for the length of your stay. WATER is NOT available in the campground, so be sure to supply your own water! There is a campground (Ice Hole) a few miles south which, I am told, has water. Also you can filter from Johnson Creek if desired. INCLUDE an item to share at the

SPECIAL EVENT (Saturday night potluck dinner) when the entire group eats together. And don't forget an item to toss into the campfire to turn to ashes (perhaps something to say "goodbye" to 2 years of Covid)?

Bring personal collecting gear (plastic bags for plants, pens/pencils for notes, digging tool, hand lens and GPS (if you have one), camera (optional), etc. Jim Smith and I will supply the group with presses, paper, marking pens, field notebooks, etc.

Here are some tidbits from the Rec people at Cascade Ranger District:

- Two outhouses are in the campground.
- There can be no more than 8 people per site.
- The campground has a lot of shade... and ticks.
- Insect repellent with Deet and light-colored clothing help with ticks.
- The ground squirrels love human food.

HOW: Each morning we form teams. Each team will have at least one seasoned botanist leader. Each team chooses a different area to explore—including all grades of difficulty from easy saunters near the vehicles to easy hikes to more strenuous hikes up to ridges/summits—collecting plants along the way. By mid-afternoon, groups return to the campground in time to press the daily haul and still have time for evening socializing and relaxation.

QUESTIONS: Should you desire further information, please don't hesitate to contact Don Mansfield (dmansfield@collegeofidaho.edu) or Beth Corbin (botanybeth@gmail.com).
~ Don Mansfield

Idaho Native Plant Society Scholarship Program

Education is key to advancing the INPS mission. With this in mind, the INPS Board recently approved initiating a scholarship program. The scholarship will be available for a full or part-time student enrolled in any accredited 2 or 4-year college or university in Idaho. Student applicants will need to demonstrate an interest in botany, horticulture, forestry, agriculture, conservation, science education, or a closely related program; and they should be pursuing a major in one of these fields. Part of the application process will require a personal statement addressing the student's interest in native plants and how their interests and career goals link to the INPS mission—to increase public understanding, knowledge, appreciation, and/or conservation of native plant species and their habitat. One scholarship in the amount of \$2000 will be available annually.

INPS will administer the scholarship, but to do so, needs a small committee of volunteers to oversee the program. The

committee will be responsible for soliciting student applicants, reviewing applications, establishing selection criteria, selecting a recipient, coordinating with the selected student and college/university, coordinating with the INPS Treasurer to distribute the funds, and any necessary follow-up with the student.

The INPS Board is looking for volunteers to serve on the scholarship committee. To help get the program up and going, it is probably best if committee member volunteers can serve at least two years. I believe it will be a rewarding experience and encourage your consideration. Committee members will be appointed by the INPS Board from the list of willing volunteers. Please contact me if you have interest in being part of the scholarship program team (president@idahonativeplants.com). I will be glad to answer any questions you may have.

~ Michael Mancuso

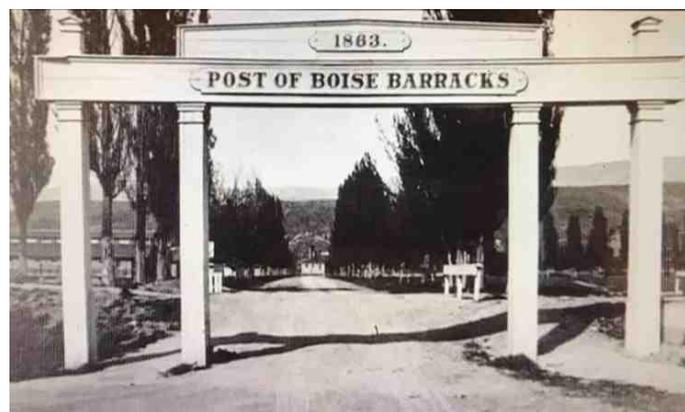
Immediately after receiving his M.D., Wilcox became Assistant Surgeon of the 6th New York Heavy Artillery. After the war ended, Wilcox was assigned to Fort Monroe, Virginia, where he attended to the health of Jefferson Davis, former President of the Confederacy, now a prisoner.

FORT MONROE, VA., *October 28, 1866.*
COMDG. OFFICER MIL. DIST. OF FORT MONROE,
Fort Monroe, Va.:
SIR: I respectfully report no observable change in the condition of state prisoner Jefferson Davis more than the gradual increase of general debility.
Respectfully, your obedient servant,
TIMOTHY E. WILCOX,
Acting Assistant Surgeon, U. S. Army.

FORT MONROE, VA., *December 19, 1866.*
COMDG. OFFICER MIL. DIST. OF FORT MONROE,
Fort Monroe, Va.:
SIR: I respectfully report the health of state prisoner Jeff. Davis to be gradually but surely improving.
Your obedient servant,
TIMOTHY E. WILCOX,
Acting Assistant Surgeon, U. S. Army.

Although a complete listing of Wilcox's military assignments has not been researched, based on collections in the databases of New York Botanical Garden and U.S. National Herbarium (accessed 21 May 2022), we do know that his subsequent postings included Camp Supply, Oklahoma Territory, in what is now western Oklahoma (1875-1878), Fort Boise in Idaho Territory (1879-1882), Fort Niobrara in what is now Nebraska in 1888, and Fort Huachuca in southwestern Arizona at least from 1892 to 1894 (Britton & Kearney 1894). In 1903, he also traveled widely in Alaska as deputy surgeon general of the army, inspecting hospital service and sanitary conditions of Alaska military posts (McLain 1905). All of these postings and assigned travels gave Wilcox ample opportunity to express his naturalistic bent, making collections and observations that he shared with eager recipients in the established natural history community back in New York and Washington, DC.

Wilcox's posting at Fort Boise was as Assistant Surgeon from June 1879 to August 1882 (Smith 2017). As part of his official duties, Wilcox was also delegated with



providing daily weather observations, a task required of U.S. Army Post Surgeons during Wilcox's tenure at Fort Boise (Smith 2017). Reports of local weather at stations throughout the country were telegraphed to a central location in Washington, D.C., where they were compiled and analyzed as the founda-



Dr. Wilcox. Photo from Smith, 2017.

tion to understanding broad-scale climatic patterns. As of 1877, the inclusion of weather reporting in the duties of medical personnel at Fort Boise overlapped those of U.S. Signal Service Observers (the first of whom, Sergeant Barnet Edward Light, happens to be the great-grandfather of one of the authors).

The 1880 census indicates that his family was with Wilcox at Fort Boise: wife Clara Brainard (Brown), 10-year-old daughter Florence Elizabeth, and 1-year-old son Glover Brown. The first-born child, Victor Irving, had died less than four years after birth. Although the census lists Glover as being born in Idaho, other sources state that "Due to the Army deployment of his birth family, he was born in Camp Supply, Indian Territory, now known as Fort Supply, in western Oklahoma." (i.e., Wikitree, <https://www.wikitree.com/wiki/Wilcox-5997>, and the 1900 census). Glover followed his father's footsteps in becoming a physician and surgeon himself, serving in the U.S. Army as Lieutenant Medical Corps (US Army 1878-1922, in France in WWI). The census also lists a 19-year-old son of a Captain who is documented under the work column as "studying medicine;" he must have surely studied with Dr. Wilcox, since apprenticeships were a common practice for becoming a doctor.

This Fort Boise was not the earlier fur-trading post by this name built in 1834 near the confluence of the Boise and Snake rivers. Rather, Wilcox was stationed at the military outpost built in 1863 at the foot of the Boise Mountains on the main road to the recently discovered Boise Basin mines. Like most such post-Civil War outposts, the primary purpose of the fort was the protection of Euro-American miners and settlers, which meant the subjugation of the indigenous inhabitants, mostly Shoshone, Bannock, and northern Paiute. In the Treaty of Fort Boise in 1864, the Shoshone-Bannock were forced to cede their territory in the Boise River drainage in exchange for treatment as a "most favored nation" and sup-

port from the United States. The treaty was never ratified by the U.S. Senate, and the provision of “most favored nation” was certainly never realized; vigilantes nevertheless began to persecute and evict Native Americans even before a reservation was established. In 1869, after suffering in spartan internments for five years, most of the Shoshone-Bannock survivors near Boise were marched to the newly established Fort Hall Reservation in eastern Idaho, while the Paiutes primarily ended up in the Duck Valley Reservation on the Nevada border.

The eviction of tribal members from the Boise Valley did not end armed conflict with indigenous inhabitants of Idaho Territory, which lasted until the so-called Sheep-eater Indian War of 1879. As part of this final battle in central Idaho, cavalry from Fort Boise and surrounding forts pursued the hold-out Tukudeka band of Shoshone (known as Sheepeaters, since Bighorn sheep were a key component of their diet), based on unsubstantiated rumors that members of the band were responsible for the murders of several whites and Chinese in the vicinity. After four months of flight through the rugged central Idaho mountains, the small band agreed to join the other Shoshone at Fort Hall.

Evidence of Dr. Wilcox’s involvement in these conflicts is provided by a couple of written sources. He is mentioned as the doctor who had initially examined an injured Indian scout, in the account of a difficult surgery (Banister 1880). Dr. Wilcox was called to the field during the Sheep-eater Campaign, as documented by Private Hoffner’s (1879) “Journal of the Sheep-eater Campaign,” which provides a vivid description of the trials of cavalry life. In his entry for August 9, 1879, Hoffner records his experiences on the way to the South Fork of the Salmon River:

“The trail that we followed was dangerous in places. If a horse missed his footing there was a chance of a tumble of two hundred feet for him and his rider, into the river. My horse (Sprightly) fell once, but by springing out of the saddle, I saved him and myself an immersion, if not a broken neck. Our pack train did

not get in tonight, so we have to sleep with saddle blankets and overcoats for covering and saddles for pillows on the blackened ground. Very few have anything to eat tonight. “

On August 10, Hoffner describes camping at an old ranch on the South Fork of the Salmon River where the troops raided a field of potatoes. Pvt. Hoffner records on August 12:

“Robbins returned from Boise City with mail, our post doctor Wilcox, two sergeants, and two privates of G Troop 1st Cav. They had a tough time for three days with nothing to eat but a salmon. A party of Umatilla Indians [hired scouts] who are camped a half mile below us went reconnoitering today. Lost four pack mules by falling over a precipice. Troup D 1st Cav joined us today with 24 men. We now present a fierce warlike appearance. Wash day.”

According to his obituary (Eggleston 1933), Wilcox was in Cuba during the Spanish-American War as Lieutenant-Colonel Chief Surgeon. He was honorably discharged in 1899 and retired as brigadier-general in 1904. Much of his retirement was spent in Washington, DC, where he indulged the botanical and general natural history inclination that will be the topic of Parts 2 and 3. From 1917 onward he was nearly blind, but his mind was clear until his death in 1932, age 92.

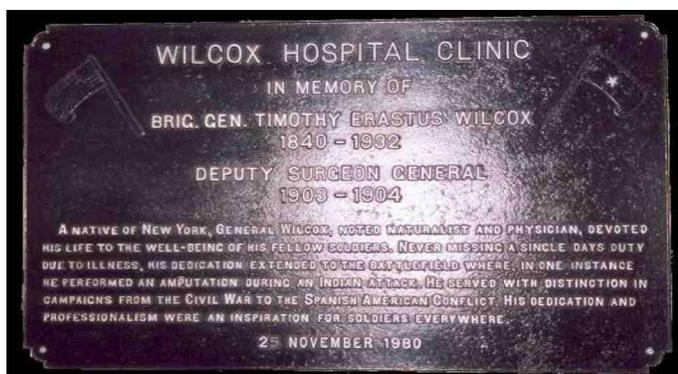


Dr. Wilcox’s grave marker in Arlington Cemetery. Photo by Carol Prentice.

Timothy E. Wilcox is buried in Arlington Cemetery, along with his wife Clara (reinterred from near Clayville, New York) and two of his three children, Florence (1870-1946) and Glover (1878-1922). His third son, Victor (1867- 1871?), is not listed at Arlington, but a headstone is found in Clayville, New York. In 1980, the Wilcox Health Clinic was dedicated in his memory; It served as the primary medical clinic on Fort Drum, New York, until January 1991 (<https://www.arlingtoncemetery.mil/>).

NEXT IN PART TWO: Wilcox the Botanist, and His Primrose

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2022 Idaho Rare Plant Conference Report

By Beth Corbin, Southern Idaho Rare Plant Working Group Lead, Pahove Chapter

The Idaho Rare Plant Conference, which is held every two years (generally), is an opportunity for the botanical community to come together and share information on rare plants, and update the Idaho Rare Plant List which is used to inform land management and regulatory agencies on conservation issues relating to rare plant species. For the Rare Plant List, we consider a combination of abundance, distribution, and threats for plants within Idaho. Many plants on the Idaho Rare Plant List have been tracked for years, but often new information brings to light additional rare plants, sometimes due to taxonomic work and sometimes by someone “stumbling” across them, either in the field or while doing herbarium research, perhaps for something only peripherally related to that particular plant. That may start by someone noticing that there are only a handful of records (specimens) for a particular plant and/or thinking “Hmm, I don’t see this one very often...”

The landmark 30th Idaho Rare Plant Conference was held February 28 and March 1, 2022, but it was unlike any other RPC. It was our first online only RPC and it was a pared-down conference, focused on priority ranking changes for selected plants on the Idaho Rare Plant List instead of including more general conservation presentations, etc. Although abbreviated, the RPC accomplished its goal of providing consensus decisions for updating the Rare Plant List, and hopefully, whetted our collective appetite for the next RPC.

This conference was coordinated by the dynamic team of Kristin Williams and Brittini Brown (both from the Payette National Forest), who did a fabulous job working out the logistics of our first online RPC. Advance registra-

tion was required but was free and easy. We had nearly 80 people register, and about 55 people at a time on the conference, with representation from a wide variety of agencies, universities/colleges, INPS chapters, tribes, consultants, and at-large individuals. The RPC was held on Zoom over two mornings (to reduce screen fatigue).

Monday, February 28, Michael Mancuso, INPS President, gave us welcoming remarks, including a long-term perspective on past RPCs that have led us up to this point. Brittini Brown provided us with Zoom logistics (including how to ask questions, participate in discussions, and vote on our RPC consensus rankings for plants to be presented) and kept us on track throughout the conference with flawless IT support. I gave a quick overview of the INPS Rare Plant List and the ranking process by the Rare Plant Working Groups, which involves researching abundance, distribution, and threat information about potential rare plants, running that information through the NatureServe Rank Calculator Excel program, and recommending a rank (1 most imperiled to 5 demonstrably secure) for each presented plant’s status in Idaho; this S (state) rank is finalized at the RPC. Then we jumped right into the ranking presentations for the Southern Idaho Rare Plant Working Group (SIRPWG).

The plants presented this year were all plants with new information and many are new additions to the Rare Plant List. The first plant was, in fact, a newly described variety, published in 2021 by SIRPWG members Barbara Ertter, Carol Prentice, and Don Mansfield (and others) with the common name batholith spring beauty. We decided this could be a good theme plant for this year’s RPC because it’s stripped down to the basics, just like this



Looking at galls. Photo by Sandy Smith.



Sagebrush galls. Photo by Sandy Smith.

particular conference. Another plant presented (by Steve Love) was Holmgren's owl's-clover, with an exciting story of being rediscovered in Southeast Idaho in 2021, after we had ranked it SH (state historic) based on very old records (thinking it was likely no longer present) at the 2020 RPC. Anne Halford presented tenpetal blazingstar as a new addition based on a collection by BLM botanist Matt Clarkson (along with a couple of very old historical collections). I won't provide details on all the plants, but there were great examples of fieldwork treasure hunts and herbarium sleuthing resulting in increased knowledge of Idaho's plants and up-to-the-minute, documented information to inform our Rare Plant List edits. See Tables 1-4 (Page 8) for all plants presented and the RPC ranking for each. Many thanks to SIRPWG presenters (and researchers!) Barbara Ertter, Don Mansfield, Steve Love, Anne Halford, Carol Prentice, Sandy Smith, Ben Legler, Jennifer Miller, and Beth Corbin.

Monday afternoon, Barbara Ertter led a field trip to the Cartwright Ridge Trail in the Boise Foothills, where the small group saw sagebrush buttercup, desert alyssum, jagged chickweed, stork's bill, and spring whitlowgrass blooming and Aase's onion in bud. They also observed several interesting plant galls.

Tuesday, March 1, we were back at it again. Kristin Williams gave us the daily welcome and logistics. Karen Colson provided an update on the status of Idaho plants listed (or otherwise tracked by U.S. Fish and Wildlife Service) under the federal Endangered Species Act, highlighting extensive work across agencies and other groups/individuals, including many present at this RPC. The Northern Idaho Rare Plant Working Group (NIRPWG), led by Derek Antonelli, then presented their plant rankings, starting with Spalding's catchfly, a listed Threatened plant, by Blair McClarin, tying in nicely with Karen's talk. Derek Antonelli presented several plants,

including western moonwort for new addition to the list based on Harpo Faust's recent discovery on an old roadbed slated to be upgraded for the U.S. Border Patrol, with immediate conservation concerns. Derek presented three mosses, continuing our Rare Plant List's scope into non-vascular plants. This RPC also had a relatively high proportion of *Carex* and related species ranked, reflecting research by Ben Legler, Don Mansfield, Derek, and others into this often difficult-to-identify group. NIRPWG presenters this year were Derek, Blair McClarin, and Ben Legler.

I closed out the RPC with announcements about the INPS Annual Meeting (Lochsa River, June 24-26, 2022) and the Idaho Botanical Foray (Johnson Creek south of Yellow Pine, July 7-10, 2022). And best of all, we are planning the next Rare Plant Conference for next year (not two years away) on February 28 through March 2, 2023, so save the dates! This will (hopefully) be an in-person, full, expanded RPC with all the parts we love and have missed, including conservation talks, a banquet, socials, face-to-face networking, snacks, etc. And here's more great news: Kristin Williams and Brittni Brown have agreed to coordinate that RPC as well! It will probably be at the Fish and Game building in Nampa, but details are to be determined, so stay tuned, and contact Kristin or Brittni if you would like to be involved in planning.



Petiole gall on hackberry. Photo by Barbara Ertter.



Excitement over first buttercup blooms of the season. Photo by Sandy Smith.



Sandy and Jennifer enjoying the sagebrush buttercups. Photo by Barbara Ertter.

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Table 1: New Additions: 20

Species	Common Name	Presenter	State Rank	Status
<i>Ammania robusta</i>	grand redstem	B. Corbin	S1S2	RARE
<i>Astragalus bodinii</i>	Bodin's milkvetch	C. Prentice	SH	RARE
<i>Astragalus mollissimus</i> var. <i>thompsoniae</i>	Thompson's woolly locoweed	D. Mansfield	S1	RARE
<i>Botrychium hesperium</i>	western moonwort	D. Antonelli	S1	RARE
<i>Calliergonella cuspidata</i>	calliergonella moss	D. Antonelli	S1S2	RARE
<i>Carex holmgreniorum</i>	Holmgren's sedge	B. Legler	S1	RARE
<i>Carex limosa</i>	mud sedge	D. Antonelli	S3	RARE
<i>Carex podocarpa</i>	shortstalk sedge	B. Legler	S1S2	RARE
<i>Carex tenera</i>	quill sedge	D. Antonelli	S1	RARE
<i>Carex vernacula</i>	native sedge	B. Corbin	S2S3	RARE
<i>Cryptogramma stelleri</i>	fragile rockbrake	D. Antonelli	S1	RARE
<i>Eleocharis mamillata</i> ssp. <i>mamillata</i>	soft-stem spikerush	B. Legler	S1	RARE
<i>Elymus hirsutus</i>	Northwest ryegrass	D. Antonelli	S1	RARE
<i>Mentzelia decapetala</i>	tenpetal blazingstar	A. Halford	S1	RARE
<i>Mitella trifida</i>	Pacific mitrewort	D. Antonelli	S2	RARE
<i>Monarda fistulosa</i> var. <i>mentifolia</i>	mintleaf bergamot	D. Antonelli	S1S2	RARE
<i>Montia parvifolia</i> var. <i>batholithica</i>	batholith springbeauty	B. Ertter	S2	RARE
<i>Phacelia scopulina</i> var. <i>scoplulina</i>	prostrate scorpionweed	C. Prentice	S1	RARE
<i>Porotrichum bigelovii</i>	Bigelow's porotrichum moss	D. Antonelli	S2	RARE
<i>Solidago nana</i>	baby goldenrod	S. Love	S3	RARE

Table 2: Update to Previously Ranked (by us) Plant: 2

Species	Common Name	Presenter	State Rank	Status
<i>Muhlenbergia racemosa</i>	marsh muhly	D. Antonelli	SH	RARE (from REVIEW)
<i>Orthocarpus holmgreniorum</i>	Holmgren's owl's-clover	S. Love	S1	RARE

Table 3: Plants on List but not previously ranked by us

Species	Common Name	Presenter	State Rank	Status
<i>Carex lacustris</i>	lake-bank sedge	D. Antonelli	S1	RARE
<i>Carex synchnocephala</i>	many-headed sedge	D. Antonelli	S1	RARE
<i>Phacelia lutea</i> var. <i>calva</i>	yellow scorpionweed	C. Prentice	S2	RARE
<i>Pogogyne serpylloides</i> (replacing <i>Pogogyne floribunda</i>)	thymeleaf mesamint	J. Miller	S1	RARE
<i>Pyrrocoma racemosa</i> var. <i>paniculata</i>	clustered goldenweed	S. Smith	S1	RARE (from REVIEW)
<i>Silene spaldingii</i>	Spalding's campion or catchfly	B. McClarin	S1S2	RARE
<i>Sphagnum platyphyllum</i>	flatleaf peatmoss	D. Antonelli/ A. Hanson	S1	RARE

Table 4: Plant Removed from List due to lack of verified Idaho records: 1

Species	Common Name	Presenter	State Rank	Status
<i>Townsendia scapigera</i>	tufted Townsend-daisy	S. Smith	Not in Idaho	none

Total = 30 plants



Looking at *Allium aaseae* in bud. Photo by Barbara Ertter.

Our 30th Idaho Rare Plant Conference could not have been such a success without the participation of a dedicated group of people, particularly the Rare Plant Working Groups, which meet several times throughout the year(s) between RPCs. We welcome anyone interested in joining one or both RPWG(s)! (Contact Derek Antonelli at ds.ca.antonelli@gmail.com for the Northern Idaho RPWG and Beth Corbin at botanybeth@gmail.com for the Southern Idaho RPWG.) We also wish to thank all the participants of the RPC, many of whom provided specific, relevant information for our collective ranking of these rare plants. At this RPC, we ranked 30 plants using the best available current data, which is great progress. This



Draba verna. Photo by Barbara Ertter.

includes 20 new additions to the list, two rank updates, seven newly ranked (by us) plants, and one plant removed from the list. (30 plants at the 30th RPC—cosmic!) As a result, approximately 58% of the plants on our Idaho Rare Plant list have been ranked at Rare Plant Conferences between 2011 and 2022 using the NatureServe Rank Calculator process and collaborative decision making. There are now 514 taxa on the Idaho Rare Plant List, out of an estimated just under 3,800 plant taxa in Idaho.

This RPC was recorded and will be available to view for those that missed it or want to revisit all or part of it. Check out the INPS website for details, when available. •

Dr. Wilcox and His Primrose ...Continued from Page 5

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Native Plant Restoration at the World Center for Birds of Prey

Article by Roger Rosentreter and Ann DeBolt, Pahove Chapter, Photos by Roger Rosentreter

It appears native plants are as threatened as the Peregrine Falcon these days. Every little disturbance seems to produce a plant that is invasive in our region. Cheatgrass, bur buttercup, kochia, rush skeletonweed, Russian thistle, and so many more. To help combat the invasive plant advance at the World Center for Birds of Prey—The Peregrine Fund (hereinafter referred to as the PFund), located southwest of Boise at the south end of Cole Road, a small group of concerned citizens have banded together to restore some of the more publicly visible segments of their land. With the PFund's stellar Peregrine Falcon, California Condor, and other endangered raptor conservation successes under their belt, why not try? So, we started slowly (in 2018), and after a few changes, we were given the go ahead, zero money, and jumped right in. Primary goals for this undeveloped portion of the site are 1) fire prevention, 2) education, 3) and wildlife habitat restoration.

History of the Site

Originally administered by the Bureau of Land Management (BLM) as a spring/fall sheep grazing allotment, the PFund site encompasses 581 acres. During its time as a grazing allotment, because water was limited to where it could be hauled, sheep use was heavy in some areas and lighter in others. Where the sheep bedded down, where they came to drink, and on south and westerly aspects, the vegetation became nearly continuous cheatgrass. Lighter use areas retained their bunchgrass community, dominated by species such as Thurber's needlegrass, bluebunch wheatgrass, squirrel-tail grass, and Sandberg bluegrass. A bluebunch wheatgrass-squirreltail grass hybrid is also common at the site. Because sheep favor eating forbs over grasses, few forbs are present on the site today.

In 1984, sagebrush was abundant on the property until two days after it was transferred from the Department of Interior's BLM to the PFund (for a Peregrine Falcon recovery center), when a range fire burned through the area. Most all the sagebrush was lost. At the time, no fire rehabilitation funds were available for this now privately owned land.

Present Day Conditions

If you haven't visited the PFund, it is located on the top of a ridge southwest of Boise. There is often a breeze, if not a strong wind, and it usually receives less precipita-



Golden currant and site overview, looking west. These golden currant were planted before we began volunteering at the site.

tion than in town. South-facing slopes and historic water haul sites along the ridgetop are dominated by cheatgrass, kochia, bur buttercup, and Russian thistle; north-facing slopes are a mix of perennial grasses, cheatgrass, and a few small clumps of unburned basin big sagebrush. Bitterbrush are few and far between. Russian thistle and rush skeletonweed are present where the ground has been recently disturbed.

Restoration Planting Efforts

In October of 2016 (prior to our joining the effort), an area dominated by cheatgrass was treated with Plateau, a pre-emergent grass herbicide. This herbicide causes irregular growth of the leaves on the few remnant bitterbrush, still visible today, where it serves as a marker of



Pin flags mark desirable plants, such as this naturally recruited big sagebrush. Behind it a plant is caged for protection from herbivores.



Site as viewed from along the visitor pathway.

this treatment. The herbicide did successfully control the cheatgrass and other invasive annual grasses.

On Earth Day 2018, we began helping PFund staff plant container forbs and shrubs in the area between the outdoor amphitheater and the parking lot. A small amount of sheep fescue had previously been seeded in this zone. Unfortunately, the “adorable” and abundant Piute ground squirrels ate whatever we planted, so we began using plant cages when we had them. Since that time, we have worked to increase forb diversity at the site by transplanting species from various pollinator and friend’s gardens, from purchases made at the annual Pahove and Orton Botanical Garden plant sales, and by seeding, using locally collected germplasm whenever possible. All plants, especially those hard to come by “special” forbs and some shrubs, are caged, and every plant is hand watered after it is placed in the ground. Weekly hand watering helps keep plants alive when we don’t receive any rain, which seems to be the norm. Forbs we have incorporated into the site include arrowleaf balsamroot, hoary aster, shaggy fleabane, cutleaf daisy, death camas, sulfur buckwheat, western yarrow, and Munro’s globemallow. Excellent pollinator plants that are not naturally occurring in this part of Idaho have also been incorporated such as blanket-flower and Rocky Mountain beeplant. Fernbush, golden currant, additional bitterbrush, and Lewis’ mock-orange have also been planted. Plant selection for the PFund has been based to a great extent on their availability.

Beginning in November 2019, local seed from basin big sagebrush, rubber rabbitbrush, hoary aster, and small amounts of ‘Eagle’ yarrow was annually broadcast. Seed of several other forb species was also broadcast, however we believe the soils could have retained enough Plateau to inhibit some forb germination even 5 years later, because these more delicate species rarely grew. Unfortu-

nately, kochia (now *Bassia scoparia*) appears to be herbicide tolerant and it has flourished. We don’t have photos to prove it, but in 2021, our little band of volunteers hand crawled through the most heavily dominated area to remove this pesky invasive species.

By spring 2020, we began seeing additional results in the form of big sagebrush, rubber rabbitbrush, hoary aster, and yarrow seedlings popping up. Hoary aster was not present before we seeded it on site, and it continues to increase. Western yarrow was the second most common forb to establish from seed. We promptly mark these seedlings with pin flags to prevent them from being pulled, sprayed, and trampled by volunteers. As of spring 2022, natural recruitment from some of the larger plants is also occurring. We believe this has been possible because cheatgrass is sparse in most of the area, largely due to the original Plateau treatment, as well as subsequent, repeated hand control efforts. We also believe that these naturally recruited seedlings are more vigorous than those we have planted.

Several years ago, silver sagebrush (a rhizomatous species) was planted near the PFund’s Archives building, where a drip irrigation system is in place. Vegetative suckers from the silver sagebrush have been successfully transplanted to other areas. Great Basin wildrye, also planted long ago near the Archive Building, have been divided and transplanted to other areas, with excellent success.



Mowed silver sagebrush after one year.

In spring 2021, the PFund maintenance crew mowed the Archive Building silver sagebrush patch to ground level as a fire prevention method. While it would have been preferable to mow to a height of 2-4 inches to limit soil disturbance in one or two passes, instead the mower made 8 passes to shred up the woody material, which facilitated some cheatgrass germination in this area. However, because the silver sagebrush resprouted vigorously and became quite dense, the site is now more fire-wise than before. Silver sagebrush will be mowed again in a few years to help maintain these lower stature, less woody plants. While not locally found in this type of habitat, silver sagebrush is preferred forage by wildlife com-

...Continued on Page 12



Bur buttercup surrounds sheep fescue plant.

pared to basin big sagebrush. The combination of its wildlife value, ability to resprout after disturbance, and lower stature make it a most suitable firewise shrub around this important building.

Unfortunately, bur buttercup continues to flourish and dominate patchy areas throughout much of our restoration site, areas where cheatgrass was successfully controlled by the 2016 Plateau treatment. While this is an improvement in terms of fire protection, it is difficult to proclaim success. Bur buttercup is a fall annual that germinates around Thanksgiving and grows through the winter. It typically flowers in late February-early March, producing seed by mid-late April. In February and March 2022, we were authorized to use a burn torch for bur buttercup control, which, compared to hand removal, reduces soil disturbance. We found that the flame kills the bur buttercup, but it is a slow process and cannot be used if there is more than a slight breeze and temperatures are warm and dry. Consequently, most bur buttercup control continues to be accomplished by hand pulling and removal from the site.

In 2022, a one credit field restoration class was offered in coordination with Boise State University's Department of Biology and the PFund. In January, students were given pertinent reading assignments; by mid-February, we were able to work at the site. Students assisted by planting additional shrubs and forbs, including more golden currant and bitterbrush, and they also added Woods' rose, oakleaf sumac, and transplanted additional silver sagebrush. They seeded Sandberg bluegrass, penstemon, nineleaf biscuitroot, and blanket-flower. Some of these seeds have germinated and will hopefully establish if we receive additional rain this spring.



Students and volunteers weed around desirable plants.

The students have greatly enjoyed the hands-on experience and opportunity to get outside and do something active and positive. They are shocked by how well they have learned to identify plants at different stages of growth and how plant phenology changes in a single week. They have a deeper understanding of the problems we face on our rangelands in terms of invasive plants and native plant losses, and the extent of restoration challenges ahead. •

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Whole Month Dedicated to Appreciating Idaho Native Plants

By Karie Pappani, Pahove Chapter

For the past several years, we have requested and received an official proclamation signed by the Governor of Idaho designating Native Plant Appreciation Week. We hold special events and presentations to further appreciate our native flora during this time of year. In 2022, we decided to shoot for the moon and ask for the whole month of April rather than just a week. Other states have done so and we figured why not ours? Our request was granted, giving members of the INPS even more reason to celebrate the wonder, beauty, and benefit that native plants bring to our great state. •



Executive Department
State of Idaho



The Office of the Governor
Proclamation

State Capital
Boise

WHEREAS, native plant species are an important part of Idaho's natural heritage, providing valuable aesthetic, economic, and ecological contributions that make our state a special place to live; and
WHEREAS, Idaho enjoys amazing biodiversity, with a flora of more than 3,000 native plant species; and
WHEREAS, native plant ecosystems are critical for protecting water quality, soils, and Idaho's natural beauty; and
WHEREAS, invasive species are a severe threat to our native plant ecosystems and biodiversity;
NOW, THEREFORE, I, BRAD LITTLE, Governor of the State of Idaho, do hereby proclaim April 2022 to be

Native Plant Appreciation Month

in Idaho.



BRAD LITTLE

BRAD LITTLE
GOVERNOR

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Idaho at the Capitol in Boise on this 11th day of April, in the year of our Lord two thousand and twenty-two.

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Idaho National Forest Region 4 Updates

By Tova Spector, Botanist and Pollinator Coordinator, Forest Service Intermountain Region 4

The Southern Idaho Forests have been extremely busy over the past year dealing with wildfires, post-fire rehabilitation, rare plant surveys, pollinator surveys and conservation, invasive species control and working with our awesome partners! Some of our many activities and accomplishments are described below.

Wildfire

The Idaho National Forests of the Intermountain Region, (Boise National Forest, Caribou-Targhee National Forest, Sawtooth National Forest, Salmon-Challis National Forest and Payette National Forest), were focused on the large and numerous wildfires and fire-related activities this year. Forest botanists and biologists helped to minimize the effects of fire suppression activities on natural resources through resource advising, developing revegetation plans, fire line rehabilitation and contributing to Burned Area Emergency Restoration (BAER) planning and implementation.

Whitebark Pine Conservation Efforts

These National Forests continued conservation efforts for whitebark pine (*Pinus albicaulis*; Endangered Species Act proposed Threatened) through ongoing seedling grow out, cone collection, and outplanting of whitebark pine seedlings at Brundage Mountain on the Payette National Forest, and on 37 acres in the 2016 Pioneer Fire perimeter on the Boise National Forest. Silvicultural teams coordinated to plant whitebark pine seedlings at Pilot Peak on the Boise National Forest while mitigating impacts to occupied Sacajawea's bitterroot (*Lewisia sacajaweanana*) habitat. The Boise National Forest has applied mountain pine beetle repellent to protect high value Plus trees (see definition below).

In 2022, the Payette National Forest is planning on collecting cones at Carey Dome and Lava Ridge and planting of seedlings on Cuddy Mountain and Smith Mountain. This includes pre- and post-planting monitoring to assess planting success. Forests are planning surveys for potential new Plus trees, which are cone bearing



Whitebark Pine was replanted without impacting existing Sacajawea's bitterroot habitat on Pilot's Peak at the Boise National Forest. USDA Forest Service photo by Crista O'Conner.

trees that may be resistant to white pine blister rust (*Cronartium ribicola*), as part of genetic susceptibility testing to the disease in isolated populations.

Pollinator Surveys and Conservation

The Forests are promoting pollinator habitat through inclusion of pollinator-friendly forbs in restoration seed mixes and the planning and establishment of pollinator gardens. The Payette National Forest has two pollinator gardens; one at the Supervisor's Office in McCall and another one on the Council Ranger District. The Boise National Forest has four pollinator gardens; three on the Idaho City Ranger District and one on the Lowman Ranger District.

The Salmon-Challis National Forest surveyed for bumble bees, looked for monarch butterflies and milkweed and improved pollinator gardens with help from the Doris Duke Foundation and Salmon Valley Stewardship (SVS). The Forest spent a day surveying for milkweed and

monarchs with SVS interns along 38 miles of the Salmon River road in July. The Forest found an abundance of milkweed and very cool insects but did not find monarchs or caterpillars.



Doris Duke Foundation interns find pink agoseris (*Agoseris lackschewitzii*) on the Salmon-Challis National Forest. USDA Forest Service photos by Diane Schuldt.

As part of a US Fish and Wildlife Service grant, the Salmon-Challis National Forest also completed work looking for declining Western and Suckley's bumble bees (*Bombus occidentalis* and *B. suckleyi*). After four years, the Forest has been unable to locate a single Suckley's bumble bee. However, the Forest has documented a total of 16 bumble bee species including many Western bumble bees.

The Caribou-Targhee National Forest will continue to document monarch butterflies at breeding sites on the Curlew National Grassland and work with partners to improve riparian habitat that benefits pollinators.

The Boise National Forest completed bumblebee inventory studies in under-surveyed areas as part of its

continued participation in the Pacific Northwest Bumblebee Atlas. Last year, Boise National Forest technicians observed several possible Western bumble bees and await identification validation. Also, the Boise National Forest continued survey efforts for milkweed patches on the Forest that may serve as monarch butterfly breeding sites.

Sensitive Species Surveys and Monitoring

The Payette National Forest conducted pre-implementation survey and monitoring of Sensitive and Forest Watch plant species in project areas. In 2021, the Forest requested puzzling halimolobos (*Halimolobos perplexa* var. *perplexa*) be removed from the R4 Regional Foresters Sensitive list for the Payette National Forest due to taxonomic updates in the *Revised Flora of the Pacific Northwest* that combined the variety with a more widespread variety (*H.p.* var. *lemhiensis*), thus making the species more ubiquitous and widespread than was previously considered.

On the Boise National Forest the South Zone Botanist determined that the extent of the population of bugleg goldenweed (*Pyrrocoma insecticuriis*; G3S2) in the Mountain Home Ranger District occurs across a greater area than formerly documented.

The Salmon-Challis National Forest targeted a large meadow complex with ideal habitat to survey for pink agoseris (*Agoseris lackschewitzii*) on the Salmon-Cobalt Ranger District. With the help of Salmon Valley Stewardship interns, the Forest was successful in finding pink agoseris in the meadow. The core of the pink agoseris population on Salmon-Challis National Forest was long thought to be farther south on the Leadore Ranger District, but more recent finds like this one over the last few years have helped to expand knowledge of the range of the species. The Salmon-Challis is also planning on assessing the conservation needs of alkali primrose (*Primula alcalina*) in the Birch Creek fen near the end of May 2022.

The Caribou-Targhee National Forest hopes to visit many of the Idaho and Wyoming rare plant element occurrences to document conditions and share information. The Forest will especially focus on whether there are in-

vasive plants threatening the rare plant occurrences and if so, deciding what type of treatment is best.

Invasive Species Inventory and Control

The Forests continued to inventory and control invasive species including cheatgrass, spotted knapweed and medusa head to restore ecosystems and protect rare plants. The Salmon-Challis National Forest has aerially applied treatments and is monitoring the effects of these aerial treatments on native plants. The Caribou-Targhee National Forest will be monitoring vegetation plots in areas of biocontrol for noxious weeds, conducting plant identification training for employees, and helping with riparian restoration projects.

The Salmon-Challis National Forest received Burned Area Emergency Restoration (BAER) funding this year for weed detection, rapid response and control after the 2021 Mudlick Fire to protect one of the largest Lemhi penstemon (*Penstemon lemhiensis*) populations on the forest. The Forest also plans on working with other partners to explore the use of seedballs to enhance restoration success.

Partnering

- The Payette National Forest is working with Brundage Mountain Ski Resort to recognize their conservation and restoration efforts through official certification with the Whitebark Pine Ecosystem Foundation as a Whitebark Pine Friendly ski resort. Brundage Mountain Ski Resort plans to enhance year-round education on whitebark pine and to collaborate with the Payette National Forest on conservation and restoration treatments within the special use permit area.
- The Boise National Forest is working with Bogus Basin Recreation Area to enhance year-round protection for sensitive Sacajawea's bitterroot (*Lewisia sacajaweanana*; G2S2) habitat and the newly documented whitebark pine within the special use permit area.
- The Payette National Forest hosted the 2022 Idaho Rare Plant Conference as part of its continuing engagement with the Idaho Rare Plant Working Group. The Forest is currently updating its Forest Watch Plant List for 2022. •

Katherine Baumann, (Botany, Invasive Species, & Pollinators Technician, Salmon-Challis National Forest), Jennifer Brickey (Ecologist and Botany Program Manager, Boise National Forest), Kristin Williams (Botanist, Payette National Forest), Crista O'Conner (South Zone Botanist, Boise National Forest), Rose Lehman (Botanist, Caribou-Targhee National Forest), Diane Schuldt (Wildlife Biologist, Salmon-Challis) and Tova Spector (Botanist, Intermountain Region 4) contributed to this article.



Bugleg goldenweed (Pyrrocoma insecticuriis) blooming on the Boise National Forest. USDA Forest Service photo by Crista O'Conner.

Idaho Native Plant Brochures for the Orton Botanical Garden

By LaMar Orton, Loasa Chapter

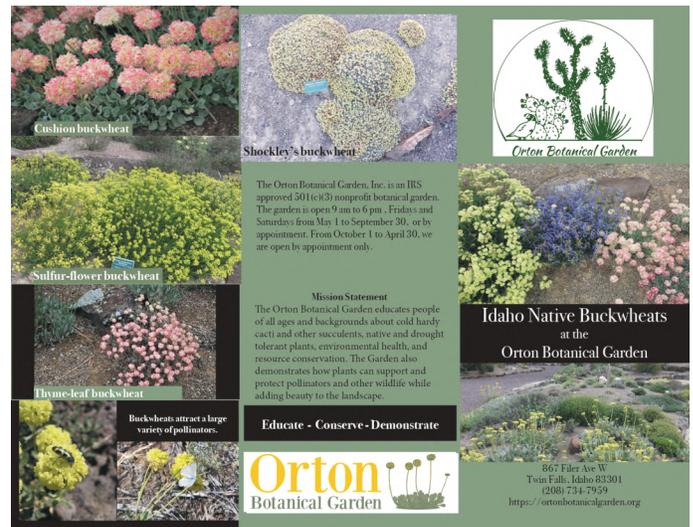
The Orton Botanical Garden (OBG) thanks the Idaho Native Plant Society and ERIG for financial support. This funding has enabled production of two new, attractive brochures about Idaho native plants. Native plant, buckwheat, and OBG fans will benefit greatly.

The OBG in Twin Falls became a vision of LaMar and Rosalie Orton about 36 years ago, when the Ortons began transplanting desert plants from Southwestern states to experiment with their cold hardiness in Idaho. Their gradually-expanding collection of desert plants eventually overcrowded their residential growing space, so they purchased 5 acres of adjacent pastureland to create this garden of desert plants totally new to this region. The Ortons developed this landscape themselves, contributing both labor and funding. For the Garden's future preservation, in 2015 they applied for, and OBG received, IRS nonprofit 501(c)(3) status approval. A board of directors was formed to oversee OBG.

OBG members, visitors and volunteers ask for and use attractive explanatory materials to learn more about the Garden. OBG's plants are even more unique to the many visitors from other states and other countries. Providing printed materials, such as these new brochures, will help explain Idaho native plants and the numerous buckwheat (*Eriogonum*) species growing in the Garden. OBG currently offers written materials and guided tours or other instructive presentations. We have upgraded our plant and topical labeling and provide summer Saturday guided tours, or others by appointment. Several 2021 classes (*Cactus and Succulents*, *Plant Photography*, and *Lewis and Clark in Idaho*) were held virtually or in-person, and "A Visitor's Guide to the Orton Botanical Garden" [prepared by Tom Schwartz, a director] was published. This beautiful 62-page booklet provides detailed self-guided tour information for better understanding of the Garden's complexity. It is sold for \$15 on OBG's website: <https://ortonbotanicalgarden.com/shop>

OBG's primary brochure, "The Orton Botanical Garden," contains general information about location, hours, plantings, mission statement and contacts. Because the OBG Board saw the need to distribute more plant-focused written materials, we applied for an ERIG grant involving this subsequently-approved project on Idaho native plants. The two new ERIG-enabled brochures now truly enrich our array of available written materials about Idaho native plants, and highlight our extensive native buckwheat collection.

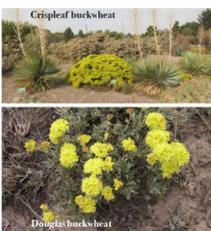
The grant's first brochure, "Idaho Native Plants at the OBG," features characteristics of native plants and pictures some species rarely seen in other Idaho public gardens. OBG's robust representation of native plant genera includes 10 *Penstemon*, 20 *Eriogonum*, and 5 *Artemisia* species, in addition to many other special native flowering plants, shrubs and trees. Pollinator lures also are indicated. Watch for a link to the brochure on the OBG website soon!



Gardening with Buckwheats (*Eriogonum*)

There are more than 175 species of Buckwheat (genus *Eriogonum*) known from the western U.S. Within this diverse and fascinating genus, one finds a large number of excellent garden species. These buckwheat species are especially suitable for gardeners who seek native, drought-tolerant, pollinator-attracting, and relatively low-maintenance plant materials. Most buckwheats require full sun and well-drained soils. They thrive in rocky gardens.

At the Orton Botanical Garden, we grow more than 45 Buckwheat taxa (species & varieties within those species), the largest collection of *Eriogonum* in Idaho. They are displayed throughout the Garden, and also within the Idaho Native Buckwheat Bed.



Buckwheat (*Eriogonum*) species on display at the Orton Botanical Garden in Twin Falls, Idaho

Botanical Name	Common Name
<i>Eriogonum brevicaulis</i>	Shortstem buckwheat
<i>E. caespitosum</i>	Matted buckwheat
<i>E. calcaratum</i>	White wooly buckwheat
<i>E. coloradense</i>	Colorado buckwheat
<i>E. compositum</i>	Arrowleaf buckwheat
<i>E. corymbosum</i>	Crispleaf buckwheat
<i>E. diatomicum</i>	Churchill Narrows buckwheat
<i>E. douglasii</i>	Douglas' buckwheat
<i>E. fasciculatum</i>	Eastern Mojave buckwheat
<i>E. flavum</i>	Alpine golden buckwheat
<i>E. gracilipes</i>	White Mountain buckwheat
<i>E. heracleoides</i>	Parsnip-flower buckwheat
<i>E. heermanni</i>	Heermanni's buckwheat
<i>E. jamesii</i>	James' buckwheat
<i>E. kennedyi</i>	Kennedy's buckwheat
<i>E. manicum</i>	Imperfect buckwheat
<i>E. microthecum</i>	Slender buckwheat
<i>E. nudum</i>	Naked buckwheat
<i>E. ovalifolium</i>	Cushion buckwheat
<i>E. pauciflorum</i>	Fewflower buckwheat
<i>E. racemosum</i>	Redroot buckwheat
<i>E. shockeyi</i>	Shockey's buckwheat
<i>E. stinkyosense</i>	Siskiyou buckwheat
<i>E. soliceps</i>	Railroad Canyon buckwheat
<i>E. sphaerocephalum</i>	Rock buckwheat
<i>E. strictum</i>	Strict buckwheat
<i>E. thymoides</i>	Thyme-leaf buckwheat
<i>E. umbellatum</i>	Sulfur-flower buckwheat

The grant's second brochure, "Idaho Native Buckwheats at the OBG," illustrates and describes the Garden's premier *Eriogonum* collection, many of them native to Idaho. Buckwheat plants are found throughout OBG, but a large number are concentrated within the Idaho Native Buckwheat Bed, established in 2010. The USDA Sawtooth National Forest, headquartered in Twin Falls, sponsored OBG's native buckwheat bed, paying for

its soil and signs. The Forest Service provided several rare species for display, now thriving in the Buckwheat Bed. Watch for the brochure link on the OBG website in the near future.

Idaho Native Plants at the Orton Botanical Garden

MISSION STATEMENT
The Orton Botanical Garden educates all people of all ages and backgrounds about old hairy cacti and other succulents, native and drought tolerant plants, environmental health, and resource conservation. The Garden also demonstrates how plants can support and protect pollinators and other wildlife while adding beauty to the landscape.
Educate - Conserve - Demonstrate

Because Orton Botanical Garden belongs to the Reciprocal Admission Program of the American Horticultural Society (AHS), OBG members have the added benefit of access to free or reduced cost admission at more than 300 US public gardens.

The garden is open Friday and Saturday from May 1 to September 30, and by appointment Monday - Thursday. From October 1 to April 30, we are open by appointment only. We have an annual plant sale in May with many native plants available for sale to the general public.

Orton Botanical Garden, Inc.
867 Filer Ave W
Twin Falls, ID 83301
(208) 734-7959
ortonbotanicalgarden.com

Who Grows Native Plants?

- sustainable
- drought tolerant
- resistant to disease and pests
- adapted to the local climate
- adapted to local fauna (pollinators)
- sense of place
- attract native pollinators

Idaho Native Plants at OBG

Some plant genera are especially well represented at the Orton Botanical Garden. These include:

- 10 species of *Penstemon*
- 20 *Eriogonum* (*Buckhorn*) species
- 5 *Sagebrush* (*Artemisia*) taxa

plus many specimens of Idaho native juniper, mahogany, currant, Oregon grape, sumac, cacti, and ferns.

Visit our website to see more native plant photos, learn about xeric gardening, find a list of drought tolerant and pollinator plants, and so much more.
www.ortonbotanicalgarden.com

All these learning tools, planted, written and spoken, support the OBG Mission Statement's goals to: "educate people of all ages and backgrounds about...native and drought tolerant plants, environmental health, and resource conservation. The Garden also demonstrates how plants can support and protect pollinators and other wildlife, while adding beauty to the landscape."

Our brochure development plan was to user-test them on Garden volunteers after they were written. A few changes were made and then 2,500 copies of each brochure were recently printed. (We found a thriftier printing company that produced 2,500 copies at lower cost than the 1,000 budgeted in the application.) Both brochures are available at OBG and on its website.

We will continue evaluating the brochures' use and reception. They may cause visitors to seek details about

specific OBG plants, so answers will be forthcoming. We will conduct periodic voluntary written or oral surveys, noting the visitors' attention to, and remarks about, any particular aspects of the brochures, also noting any changes in inquiry quality/quantity. We will note especially comments about Idaho native plants, and of course, the buckwheats.

Durability of the brochures will be scrutinized regularly too, as part of OBG's regular maintenance plan to inspect and replace deficient materials.

Volunteer Efforts and Resource Donations

Ann DeBolt developed the brochures, with input and supplemental photos provided by Tom Schwartz, Vicki Henderson, and LaMar Orton. Vicki Henderson transferred the brochures into an Adobe format for printing. OBG provided in-kind donations of labor to write, create photographs for, copy, field test, and revise brochures before printing, using its existing materials and volunteer labor.

Timeline: 2021-22 (Limit is 2 years from ERIG's April 2021 funding date).

However, this brochure work will continue as long as the Garden does, because periodic revisions will reflect Garden and plant changes, including added or re-named plants and tired brochures.

We encourage you to peruse the brochures and exploring the many benefits of native plants, including buckwheat!

Visit Orton Botanical Garden in 2022. Check its website for open hours, special events, Saturday tours, volunteer opportunities, and membership information. Contact information: LaMar Orton, (208) 734-7959; lorton1@msn.com/ •

Orton Botanical Garden, Inc.
aka Plantasia Cactus Gardens

Large selection of Idaho and Great Basin native plants. Cold hardy cacti, yuccas and other succulents.

Our 5-acre drought tolerant botanical garden is open by appointment April 1 to Nov 1.
Open house and plant sale held the last two weekends in May.

867 Filer Ave W, Twin Falls, Idaho 83301
Phone: 208-734-7959, cell: 208-308-6840
Website: www.ortonbotanicalgarden.com
Email: lorton1@msn.com

Chapter News

CALYPSO CHAPTER

When: Chapter meetings will be held May 4 and October 5 at 7:00 p.m.

Where: Meetings are held in the Wildlife Building, North Idaho Fairgrounds, Coeur d'Alene.

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

Past Events

April 7: Q'emlin Trails, Post Falls. A group of ten people participated in Calypso Chapter's plant walk at Q'emlin Trails in Post Falls. The early spring flowers were on full display.

May 21: Antione Peak Plant Survey #2. Surveys were conducted for a plant list for the conservation area near the Spokane Valley.

Upcoming Events

Watch for details via chapter email.

June 11: Plant Walk. Location still to be determined. Forward ideas to Derek.

June 23 to 27: INPS Annual Meeting. Event will be held along the Lochsa River. Registration is required. See INPS website for details.

July 7 to 11: Idaho Botanical Foray. This is the annual plant collecting expedition. This year's foray is sponsored by College of Idaho and will be held in the Yellow Pine area. Contact Derek for details.

July 16: Antione Peak Plant Survey #3. We will be conducting surveys to generate plant list for the conservation area near the Spokane Valley. Survey will start at 9:30 am. Everyone welcome.

July 23: Moose Lake Plant Walk. We had to cancel last year's trip to Moose Lake because of forest fires. Watch for details via chapter email.

August 13: Mountain Plant Hike. Location still to be determined. Forward ideas to Derek. Watch for details.

LOASA CHAPTER

When: Meetings are held third Thursday of each month at 7:00 p.m.

Where: Taylor Building, Room 247, College of Southern Idaho, Twin Falls.

Contact: Bill Bridges, bridgesbill34@yahoo.com

PAHOVE CHAPTER

When: Meetings are held on the second Tuesday of each month from September–April at 7:00 p.m. Times, dates, and topics are tentative. Current members receive email notice of each meeting and other activities. Events are also posted on the Pahove Chapter page of the INPS website: <https://idahonativeplants.org/pahove/>

Where: Chapter presentations for the 2021/2022 season have come to an end. Please be sure to join us again next season starting in October 2022. Meetings were held this past season via Zoom. We hope to start offering in person meetings, as allowed. We are planning other monthly activities, stay tuned for our fall line-up.

Contact: Karie Pappani, pahove.chapter.president@gmail.com

News

We'd like to thank Caroline Morris for her many years of dedicated service as our Pahove treasurer and so much more. We welcome Don Essig as our new treasurer.

Past Events

We had a successful native plant sale at the MK Nature Center to celebrate Earth Day and Native Plant Appreciate Month in April. We followed that up another popular event, our 4th annual Mother's Day Wildflower Plus Show at the Idaho Botanical Garden. Both events are much anticipated productions that draw in members and public for the benefit of our mission. Thank you to our board members who orchestrated the events:

- Pahove Chapter Native Plant Sale: Susan Ziebarth (manager), Vicki Henderson, Caroline Morris, Kirsten Severud, Ray Corbin
- Wildflower Plus Show: Barbara Ertter (manager), Susan Ziebarth

AND a big thanks to all of the volunteers who make these events possible! There are many of you and we acknowledge each and every one of you for your contribution.

Upcoming Events

We will continue to keep you updated on botanical news and activities happening in our area. However, we do take a break from presentations from June-August.

SAWABI CHAPTER

When: First Monday of each month, October through March, 7:00 p.m.

Where: Pond Student Union Building, North Fork Room, ISU Campus, Pocatello.

Contact: Paul Allen at pokyalen@hotmail.com

Past Events

March 7: Dr. Bruce Finney of the Biological and Geosciences Department of Idaho State University spoke on Climate Change.

Upcoming Events (Hikes)

June 4: Hell's Half Acre (I-15 rest stop), 10:00 a.m.

June 6: Stelzer's property (top of Buckskin Hill), 6:00 p.m.

June 11: Allen Cabin, 10:00 a.m.

June 13: South Fork Mink Creek, 6:00 p.m.

June 18: Pebble Creek Ski Area/Boundary Trail, 4:00 p.m.
June 20: Elk Meadows road tour, 6:00 p.m.
June 25: Cress Creek (near IF), 8:30 a.m.
June 27: Scout Mountain Nature Trail, 6:00 p.m.
July 2: Mt Harrison, 10:00 a.m.
July 4: Kinney Creek, 6:00 p.m.
July 9: Orton Botanical Garden, 10:00 a.m.
July 11: Inman Canyon, 6:00 p.m.
July 16: Aberdeen Exp. Station, 10:00 a.m.

UPPER SNAKE CHAPTER (INACTIVE)

Contact: Kristin Kaser, kaser.kristin@gmail.com

WHITE PINE CHAPTER

When: Meetings are typically held the third Thursday of the month, September through April. Current information is posted on our chapter webpage:

<https://www.whitepineinps.org/WPschedule.html>

Where: We are currently holding meetings via Zoom. We will resume talks in the fall.

Contact: INPS, White Pine Chapter, PO Box 8481, Moscow, ID 83843 or whitepine.chapter@gmail.com. Visit the chapter website for upcoming event information: <https://www.whitepineinps.org/>.

Past Events

Recordings of all talks from this past fall and spring are posted on the White Pine Chapter YouTube Channel.

May 7: Native plant yard tours.

May 13-15: Annual Native Plant Sale. Sale was held online this year with pick-up at PCEI in Moscow.

Current Events

June 23-27: State annual meeting based at Wilderness Gateway Campground on the Lochsa River. Presentations and field trips will focus on the natural history of the Clearwater River Drainage. More information can be found at <https://idahonativeplants.org/statewide-annual-meeting/>

WOOD RIVER CHAPTER

Contact: Subscribe to the newsletter by emailing Lisa Horton at 1gypsy2016@gmail.com. Address questions about programs to Kristin Fletcher at naturewalker7@gmail.com. Visit our chapter website: www.woodriverinps.wixsite.com/wrinps

Past Events

March 9: Kathy Richmond, Challis resident and nationally recognized mushroom expert, spoke about mushrooms, both toxic and edible.

May 14: "Deadly, Poisonous and Edible Mushrooms." This hike was led by internationally known mushroom

expert Kathy Richmond as a follow-up to the Zoom talk she did for us in March. (Find the link and listen to the talk on the Talks page of our website www.woodriverinps.wixsite.com/wrinps). May is a mushroom's heyday.

Upcoming Events

More details can be found on our chapter website, www.woodriverinps.wixsite.com/wrinps.

June 11: West Side of Dollar Mountain Hike. June is the crossover time when you can see both late spring and early summer wildflowers so join us to learn about them in a place that we love for botanizing. Medium Difficulty (rated for steep path and altitude) hike of around 2 miles. The walk includes intermittent streams and sagebrush ecosystems. Sometimes we see blue camas in a really wet spring year! We will meet at HP&R for leaving at 9am, please arrive by 8:45 a.m. Alternately meet at the Forest Service Block by 9:15 a.m. (right behind the Limelight Hotel) if you are coming from Ketchum. (We'll leave there by 9:25). Parking at the trail head is scarcer than a rare orchid, so plan to carpool. We'll probably be back at the cars around 2:30pm.

June 23-27: INPS Annual Meeting on the Lochsa River in north Idaho. The theme is Plants and Natural History of Clearwater Forests. Wide ranging hikes in a diversity of habitats are planned plus other activities. Register at: <https://idahonativeplants.org/statewide-annual-meeting/>. Our chapter has booked a group camping site. If interested, call Lisa at 208-721-1798 for details. Anyone may attend the annual meeting and hikes.

July 15-17: Members Only Campout at Trap Creek, west of Stanley. We will be exploring the Bear Valley area on Saturday, camping 2 nights at Trap Creek group site. The highlight will be a visit to a wet hillside guided by State INPS President Mike Mancuso. Cost per RV or tent will be \$25 inclusive of the two nights. To sign up, contact Lisa at 208-721-1798.

August 6: Top of Baldy Hike. Wildflowers abound up there and it is the perfect venue to begin to learn wildflowers or deepen your knowledge. We will ride Sun Valley's Gondola and chair lift up to the top. This walk is rated Moderate because of uneven terrain, altitude and no shade. Meet at HP&R to leave by 9:30am (please arrive by 9:15am) or meet at the River Run parking lot at 10am so that we can start for the Gondola by 10:15am. Fee for gondola ride.

September TBA: Lichens! No details on this one yet. Are you fascinated by the crusty bright orange stuff on rocks or the yellow hairy things hanging out of trees? You'll love this walk which will be led by some real experts. More details coming soon. •



IDAHO NATIVE PLANT SOCIETY

PO Box 9451, Boise, ID 83707

www.idahonativeplants.org

ADDRESS SERVICE REQUESTED



Idaho Native Plant Society Membership Form

Name _____

Address _____

City/State _____ Zip _____

Phone _____ E-Mail _____

Chapter Affiliation:

- Calypso (Coeur d'Alene)
- Loasa (Twin Falls)
- Pahove (Boise)
- Sawabi (Pocatello)
- Upper Snake (Idaho Falls) - *Inactive*
- White Pine (Moscow)
- Wood River (Ketchum/Sun Valley)
- No Chapter

Membership Level:

- New Renewal
- Student \$10
- Senior \$15
- Individual \$20
- Household \$25
- Household-Senior \$25
- Sustaining \$40
- Patron \$100+

I would prefer to receive *Sage Notes*: Print Electronic Both

Send completed form and full remittance to:

Idaho Native Plant Society
P.O. Box 9451
Boise, ID 83707

Memberships run calendar year. New memberships enrolled after June 1 include the following year. **Renew or join online:** <https://idahonativeplants.org/membership/>

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Editor: Karie Pappani

Layout Editor: Jody Hull

sage-editor@idahonativeplants.org

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Advertising: Advertisements help reach environmentally-minded, native plant-loving customers and help support IN-PS. Prices: 1/8 page = \$5, 1/4 page = \$8, 1/2 page = \$15. Submit ads electronically to the editor (JPG, TIFF, PSD or PDF files). Send payment to: Sage Notes Ads, P.O. Box 9451, Boise ID 83707.

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<https://idahonativeplants.org/sage-notes/>