

Kelseya

Newsletter of the Montana Native Plant Society



Kelseya uniflora
ill. by Bonnie Heidel

SMALL GRANTS REPORT: Restoring Intact Native Plant Communities Post-herbicide Treatment in the Centennial Valley

By Kara Maplethorpe and Clare Ols



Shannon, CVA's 2023 Field Technician, works to rake a site in the Long Creek area prior to reseeding in June 2023.

Located in southwest Montana, the Centennial Valley is one of the last remaining intact and relatively undeveloped landscapes in the state, and contains a variety of native habitats, including wetlands, grasslands and sagebrush-steppe. In addition to providing habitat for iconic wildlife species such as grizzly bears, elk and wolves, the Centennial also supports a variety of human activities including multi-generational ranching operations, outfitting and recreation. Founded in the early 2000s, the Centennial Valley Association ("CVA") works to preserve the Centennial's intact habitat and open space, maintain quality water resources, and protect traditional uses of the landscape for future generations.

IN THIS ISSUE:

- ☞ Chapter Events
- ☞ MNPS Presents! Season Four Begins
- ☞ Conservation Corner: Citizen Botany Update;
Save the Date for Conservation Conference
- ☞ Annual Meeting Recap
- ☞ Field Trip Reports
- ☞ Gardener's Notebook: *How Do Seeds Germinate in the Wild?*
- ☞ New Herbarium Curator at MONTU



Chapter Events

Artemisia Chapter

Info: Jessica Callahan at 507-696-5467; artemisiamnps@gmail.com.

Calypso Chapter

Info: Catherine Cain at 406-498-6198; nativeplants@montana.com or Karen Porter at 406-498-9728; karenwporter44@gmail.com.

Clark Fork Chapter

Info: Teagan Hayes at 920-979-9009; teagan.hayes@gmail.com or Paul Buck at 970-901-2418; paul7703@gmail.com.

Thursday, October 12, 7:00 p.m. Are you interested in helping raise plants for our native plant sale? **Elliott Conrad**, owner of Pipilo Native Plant Nursery, will conduct a workshop on **Growing Native Plants from Seed** and even how to grow ferns from spores! Join us. UM Campus, Natural Sciences Building, Room 207.

Thursday, November 9, 7:00 p.m. Diatoms are single-celled algae housed in intricate glass cell walls that live in water everywhere on earth and produce about 20% of our oxygen. Come and explore **Jewels of the Sea** with PhD candidate, **Heidi Abresch**. Room L09 Gallagher Business Building, UM Campus.

Thursday, December 7, 6:30 p.m. (1st Thursday) Our annual **Christmas Potluck** will again be held in the Del Brown Room in Turner Hall on the UM Campus northwest of the Oval. Parking will hopefully be available west of the Gallagher Building, in lots or on the streets off Arthur and Connell. Bring plates, utensils and a dish to share. Alcoholic beverages are okay! Don't forget to bring a few of your favorite digital wildflower photos from the summer. Call Peter at 406-728-8740 or Kelly at 406-258-5439 if you have questions.

Monday, January 8, 7:00 p.m. Join Montana Fish, Wildlife and Parks staff **Michael Kustudia** and **Jess Martin** as they introduce us to The **History and Diversity of Milltown State Park**. Their presentation will cover the role native vegetation played in restoration and opportunities for botanizing and birding. Joint meeting with Montana Audubon; Room 110 of the Interdisciplinary Science Building at the southwest end of campus. (Note the different day and place).

Thursday, February 8, 7:00 p.m. Come and hear **Glenda Scott**, a retired Forest Service silviculturist, share her experiences **Restoring Forests in the Boreal and Gobi Desert Regions of Mongolia**. The forest vegetation is much like in Montana, and the changes are affecting the people and their livelihoods. Room L09 Gallagher Business Building, UM Campus.

Eastern At-Large

Info: Kelsey Molloy at 406-654-4566; kelsey88@gmail.com.

Flathead Chapter

Info: Tara Carolin at 406-607-7670; mnps.flathead@gmail.com.

Chapter volunteers are still planning for programs and get-togethers. No details are set. Please watch your email. Feel free to send us questions or suggestions to: mnps.flathead@gmail.com.

Kelsey Chapter

Info: Devon Malizia (president) or Jane Fournier (secretary) at kelseychaptermnps@gmail.com.

Maka Flora Chapter

Info: Fraser Watson at 703-509-0152; Dfw9sb@gmail.com.

Valley of Flowers Chapter

Info: Contact Gretchen Rupp for program details or to be added to the Valley of Flowers Chapter "Friends" e-mail list, at 406-586-8363; beesgrmt@gmail.com.

Friday, October 13, 3:00 p.m. Pollinator Garden Fall

Cleanup. Bring work gloves, a leaf rake and hand clippers for our annual putting-to-bed of the popular native-plant garden by the Gallagher Trail north of Mason Street (Langohr Community gardens in Bozeman). Contact: Bill Klenn at wgklenn@gmail.com or 406-587-5748.

Saturday, November 11, 10:00 a.m to noon. Workshop: How to Preserve Plants for Fun and Decoration. (Note the change of date). Join herbalist/educator **Robyn Klein** to make a simple plant press and use preserved plants to create distinctive greeting cards, placemats, and more. The workshop will take place on campus at MSU. Each participant will go home with a small plant press of their own and unique greeting cards. If you would like to take part in the workshop, be sure to gather late-blooming flowers and colorful fall leaves before we're covered by snow. Press them between newspaper sheets or in the pages of a large, disposable book, beneath a pile of books. So that we can provide enough materials, pre-registration for the workshop is required; do that by emailing: herbrobin@gmail.com.

Tuesday, December 12, 7:00 p.m. Biocontrol of Invasive Plants. Join **Jeff Copeland** to explore the history of this practice, including intriguing recent developments. Room 108 of the Plant Bioscience Building, on the campus of MSU-Bozeman. Contact: Jeff Copeland at ceeland777@protonmail.com; 406-539-6029.

Winter 2024. Workshop on Propagating Native Seed. If enough chapter members are interested and have collected seed this fall, we'll offer a hands-on workshop on propagating seed to create native plant landscapes. If this interests you, now is the time to collect seeds! MNPS does not have its own specific guidance on collecting wild seed, but many sources of information are available online. Basic guidance from the North American Native Plant Society can be found at: <https://nanps.org/seed-collecting/>.

Western At-Large

Info: Jon Reny at 406-334-0459; jreny@kvis.net.

(Small Grant, continued from page 1)

CVA's Invasive Species Management Program accomplishes the foregoing objectives by bringing together community members, agencies and nonprofit organizations to treat noxious weed infestations and improve native vegetation. In addition to herbicide and mechanical treatments, CVA began a reseeded project in 2019, with support from Montana Fish Wildlife and Parks' Wildlife Habitat Improvement Program and the Montana Native Plant Society's Small Grants Program.

From 2019 to 2021, we reseeded ten acres identified as high-priority wildlife habitat in the Monida Hill area of the Centennial, using a mixture of native fescue and forb species that included Idaho and Rocky Mountain fescue, arrowleaf balsamroot, Rocky Mountain bee plant and western yarrow. These species were selected based on their relative forage value to both wildlife and livestock, site conditions, seedling vigor and weed interference. In 2022, we again received support from the Montana Native Plant Society and were able to purchase seed for an additional ten acres of high-priority wildlife habitat in the Long Creek area. While an unexpected cold snap in October prevented us from a fall reseed, we seeded all the additional acreage this spring.

To monitor the success of our efforts, we established 100-foot monitoring transects in each project area prior to reseeded. Monitoring is conducted using quantitative vegetation surveys and qualitative photo points to assess plant species diversity and ground cover changes. Monitoring is conducted once per year for five years post-seeding and allows us to evaluate the establishment of the reseeded species while watching for potential weed invasions. We estimate that approximately 70 percent of ground cover at the project site will be native grasses and forbs five years post-reseeding and are already seeing positive results in the Monida Hill area!

Finally, this project would not have been possible without our partners, The Nature Conservancy and Red Rock Lakes National Wildlife Refuge, who provided support, equipment and materials for this project. We would also like to extend a huge thank you to the Montana Native Plant Society who helped make this project possible!

If you have any questions about CVA's reseeded project or other invasive plant management efforts in the Centennial Valley, please do not hesitate to contact Clare Ols, Invasive Species Coordinator, at: invasiveweeds@centennialvalleyassociation.org.



MONTANA NATIVE PLANT SOCIETY

MNPS Presents!

A Celebration of Montana Native Plants

...curated from MNPS summer 2023 field trips

Thursday, October 5, 7 pm on Zoom

2023-2024 MNPS Presents! Season Kickoff

We will begin our fourth MNPS Presents! season on October 5 with **A Photo Celebration of Montana Native Plants**. This first of six planned Zoom evenings will feature pictures from MNPS field trips that took place in all parts of Montana this summer, compiled by Gretchen Rupp. Door prizes will be awarded during the show. Join us online at 7:00 p.m. on October 5. Watch for Zoom registration details in your inbox - or find them on our MNPS Facebook page. Monthly programs will generally be on the first Thursday of the month, October through March. For more details, contact: bethmadden64@gmail.com.



WHITEBARK PINE ECOSYSTEM FOUNDATION OF CANADA

Pines & People - Human Impacts on 5-Needle Pines

2023 Science & Management Conference

October 11 - 14th, 2023
Revelstoke, BC

Register Today!
www.whitebarkpine.ca



Kenda Herman on Badger Ridge at Bannack State Park at the 2023 Annual Meeting.



Conservation Corner

By Andrea Pipp and Kenda Herman, Kelsey Chapter
and Elizabeth Bergstrom, Conservation Chair



Citizen Botany Pilot Study Nears Completion

The second year (2023) of the Citizen Botany Pilot Study is looking like another successful year. In 2023, at least 48 people completed the trainings to become a Citizen Botanist and 24 of them selected a rare plant location to revisit. Citizen Botanists are given two years to complete their assignment, and at least 35 folks did just that. We are pleased to announce that information is still trickling in. If you are a Citizen Botanist working to complete your site visit then please remember to submit your data by November 1, 2023!

What comes next? Andrea Pipp (Montana Natural Heritage Program) will be analyzing the two-year dataset and writing a report with the assistance of Elizabeth Bergstrom (MNPS Conservation Chair) and Kenda Herman (Pilot Study Coordinator). Plus, we'll put out another survey to track participants' satisfaction and experience in being a Citizen Botanist. The report, due February 2024, will be provided to the MTNHP Program Lead and MNPS board and will summarize all elements of the pilot study:

- Purpose and need for this information;
- Methods used, including what worked, didn't work and could be improved upon;
- Types of agency partners and participants and level of involvement;
- Rare plant revisits: which plants and locations got revisited;
- Participant survey results;
- Recommendations for next steps;
- & More.

A huge thank you to everyone who participated in some aspect of the Citizen Botany Pilot Study!

Upcoming Conservation Conference

Our Conservation Conference will be held **April 11 and 12th, 2024** at Montana State University, Bozeman. The focus of the conference is **restoration practices**. Look for the complete program and sign-up in the *Winter Kelsey*.



WELCOME NEW AND RETURNING MEMBERS!

*The Montana Native Plant Society
would like to welcome and thank
new and returning members from
the following chapters:*

Artemisia Chapter

Sally Geraci, Raymond & Mary Delle
Gunn, Shaun Martinez, Tina Miller

Calypso Chapter

Pamela Osnaya, Shyla Wesely

Clark Fork Chapter

Giovanna Bishop, Radd Icenoggle,
Kathleen & Jeffrey Janosko, David
Ketchum, Judy Molland, William
Nanavati, Sarah Ogden & Matt
Trentman, Mardia Parker, Miranda
Pittler, Evan Stark-Dykema, Carolyn
Vinci

Flathead Chapter

Angie Knoll, Jennifer Rutheford &
Kiota Ortega, Jessie Walthers

Kelsey Chapter

Stephanie Brecht - Brecht Consulting
Services LLC, Meagan Kiser, Jazzmyn
Mullen

Valley of Flowers Chapter

Leslie Hayes, Robin & Carl Hellyer,
Rachel Lassa - Bee Grounded
Landscaping LLC, Nicole McChesney,
Denise Riebe, Olivia Simonson

Western Montana at Large

Kimberly Bowcutt, Charles Elliott



SMALL GRANT REPORT - A Tale of Two Trees: Drought Response Strategies of Whitebark and Limber Pine Seedlings

By Sean Hoy-Skubikr

In the high elevations of Montana's quintessential mountain ranges, the landscape is often defined by two tree species: whitebark pine and limber pine. These iconic trees can range from towering, majestic giants to ancient, twisted trees that have endured millennia of harsh mountain-top winds and represent the ideals of wilderness to those that visit these pine's lofty domain. These trees are critical to their ecosystems, creating stability and promoting biodiversity. Their large, nutritious seeds provide forage for birds, squirrels and bears, and their ability to grow in harsh conditions creates refuges for a wide range of plant and animal species. However, due to a suite of threats, these trees are on the decline.

It is estimated that 54% of all whitebark pines and 42% of all limber pines are dead as of 2019. Those staggering numbers are predicted to rise in the coming decades due to attacks from an invasive fungal pathogen (white pine blister rust), and a native pest (mountain pine beetle). Additionally, warming and drying conditions are expected to increase mortality and result in shifts in the species' geographic ranges. To understand and predict the future of these species, we need to understand the mechanisms underlying their establishment and mortality.

To this end, we employed a greenhouse-based drought experiment, using six-year-old seedlings of whitebark and limber pine. Tree seedlings are more vulnerable than adult trees, which can restrict regeneration in the wake of mortality events. Seedlings of both species underwent eight weeks of severe drought, followed by four weeks of well-watered conditions. Throughout this time, we monitored individual-level stress responses to determine

differences in drought resistance strategies and recovery ability.

This study revealed two key findings. First, the drought response strategy varied between the two species, with limber pine employing strategies aligned with drought "avoidance" and whitebark pine more closely aligned with drought "tolerance". Limber pine was found to close its stomata earlier in the drought, essentially shutting down operations to avoid drought-induced

damage, whereas whitebark pine continued operating through higher levels of stress. These strategies may reflect adaptive responses to the two species distributions. Limber pine occurs in lower elevation and more southern locations than whitebark pine, and as such, may have evolved to capitalize on early season moisture before slowing down for the summer when severe drought may be prevalent. In contrast, whitebark pine may have evolved to maintain photosynthesis throughout a shorter growing season with more moderate drought.

Second, across species, ability to recover following the drought period was highly correlated with starch content. Starch is an important form of assimilated carbon in plants that can be mobilized during droughts and used to maintain water balance. Starch can also be mobilized following droughts to be used for repair and regrowth following damage to critical plant processes. These findings lay the foundation for understanding and predicting how future climate change may affect these two iconic trees. Our future work will look to further investigate these mechanisms to predict drought responses more reliably across Montana's forests.





Botany at Bannack – Annual Meeting Recap

After a wonderful and needed rainy June in southwest Montana, suddenly, by the 22nd, rains were decreasing – just in time for MNPS's Annual Meeting at Bannack State Park, June 23-25, 2023. Timing could not have been better for peak wildflower bloom amid a lush green countryside uncommon to this semi-arid region. Happily, nearly all field activities could proceed as planned, the mosquitoes were not as fierce as advertised, and all the meals arrived on time. About 100 attendees drifted into Bannack during Friday (nearly all MNPS members),

many for workshops, and by Friday evening the meeting was in full swing. As the field trips rolled out, old and new acquaintances were made, specimens were examined and debated, and we once again were reminded of the wealth of knowledge and breadth of experience that comprises the MNPS. Catherine Cain and Karen Porter, who co-chaired the meeting, express enormous gratitude to our small but mighty planning committee and to the field trip and workshop conveners who carried the weekend. Thank you!



Photos of the Annual Meeting and the Flora of Bannack:

Page 4: Top right: Bloomer's needlegrass (*Stipa x. bloomeri*), **bottom left:** textile onion (*Allium textile*); photos by Matt Lavin.

Page 5: Bottom: Sagebrush false dandelion (*Nothocalais troximoides*), Railroad Canyon wild buckwheat (*Eriogonum soliceps*) - a Montana Species of Concern and local endemic to southwest Montana, silver chickensage (*Sphaeromeria argentea*) - a Montana Species of Concern and regional endemic to southwest Beaverhead County; photos by Matt Lavin. **Above (clockwise):** Tour of Bannack, meeting inside the school, Bird's Eye Trail Hike led by Pam Barbour, big sagebrush (*Artemisia tridentata*) in Bannack (photo by Matt Lavin), Kenda Herman giving a workshop on Citizen Botany.

Field Trips are at the Heart of MNPS!

Peterson Ranch – Five Valleys Land Trust

By Paul Buck, Clark Fork Chapter

Four miles up the Old Mullan Trail, from Highway 1 in the Flint Creek valley, lies the stunning mixed grasslands of the Peterson Ranch. A northeast facing slope affords a more verdant summer landscape than surrounding acreage. Put in conservancy through the Five Valleys Land Trust (FVLT) the land is still part of a working ranch.

Field trip leader Mary Ellyn Dupree, MPG Ranch botanist, and Joe Elliott, Missoula botanist, led us in the most interesting discussions of plant habitat and range management. Most of the vegetation is comprised of native species which remain vibrant through the combined efforts of FVLT and the Peterson family. Overgrazing was not evident as shown by the large presence of rough fescue, *Festuca campestris*.



Photo top: Mary Ellyn Dupree – showing the finer points of plant identification. Photo by Paul Buck.

Photo left: Nettle Leaf Giant Hyssop (*Agastache urticifolia*). Photo by Paul Buck.

The plant list was long and varied on this most enjoyable, informative, and rewarding trip. If an MNPS member would like to visit the Peterson Ranch, please contact FVLT Stewardship Director Jenny Tollefson at: 406-549-0755. For more information about the Peterson easement go to:

<https://www.fvlt.org/projects/peterson-angus-ranch-easement>

Bitterroot River Riparian Walk

By Paul Buck, Clark Fork Chapter

Over the past few decades, the main channel of the Bitterroot has moved east, away from the access. The gravel and sand bars that were created left pools of warmed water and slough that provided a habitat for a wide variety of riparian and aquatic plants.

The plant list for this warm mid-August day contained 31 species, a good portion of which (as you may guess) were non-natives. A discussion about the difficulties of riparian restoration ensued when a large patch of reed canary grass, *Phalaris arundinacea*, was encountered. Riparian restoration biologist, Gunner Davies, described the many years' process needed to attempt eradication.

Many thanks to Peter Lesica for familiarizing us with the many aquatic plant flowers we observed. The most interesting plant we found was the tiny, delicate *Elodea nuttallii*. The long flower stalks reaching above the water surface made it even more impressive.



Gravel bar. Photo by Deb Goslin.



Gardener's Notebook

Using Native Plants in Backyard Landscaping

“How Does Mother Nature Do It?”

By Kathy Settevendemie, Clark Fork Chapter

How do seeds germinate in the wild? Observing how seeds are dispersed and the process between the time they fall to the ground and germinate can be instructive when determining strategies for propagation.

Observe what happens: many seeds fall on dry ground as they leave the mother plant. Those seeds are either blown or carried into a ‘safe’ site, perhaps under a rock or beneath a shrub, until sufficient moisture allows germination. Other seeds persist through the winter, either on the ground or tucked into a crevice, and then germinate when warm temperatures and adequate moisture are present. Some will even germinate while still attached to the mother plant if conditions are right.

Several of our native species produce non-dormant seeds that germinate as soon as conditions are optimal and require no pre-treatment. Other species require a period (or two) of cold, or warm/cold stratification in order to germinate.

Stratification can be provided in a few ways:

1) Simply plant seeds in the ground with soil, let them overwinter. In the spring provide adequate moisture for roots to establish.

2) Place seeds in a moist media in a dark, cool place for a specific period of time, monitoring periodically for radicle emergence (if that happens, plant seeds immediately) or until the specified period of time for stratification is complete (see Native Plant Protocols website: <https://npn.rngr.net/propagation/protocols>).

3) In the fall, plant seeds in well-drained soil media in a seed flat or pot and leave them out-of-doors over the winter. I cover seed flats with a hardware cloth screen to prevent predation.

Selecting which stratification method to use depends on several factors, including your willingness to monitor stratifying seeds during the winter, space availability, knowing stratification protocols (there may be multiple alternatives) and protecting seeds during winter warm spells that may cause premature germination, and, once seeds have germinated, from sudden freezes that may kill fragile seedlings.

Growing your own native plants from seed is rewarding. If you have extra plants - share them with friends!



Ipomopsis aggregata (Scarlet gilia)



Ipomopsis aggregata seedlings



Anemone patens seedlings



Anemone patens (pasqueflower)

FIELD TRIPS, THE HEART OF MNPS, CONTINUED

Lubec Ridge Hike – June 18, 2023

By Rosemary McKinnon and Pat Jaquith,
Flathead Chapter

The weather was inauspicious for this combined hike for members of Great Old Broads for Wilderness and the Montana Native Plant Society. The forecast was for windy, cold and wet weather and the dozen preregistered hikers dwindled to six. We were amply rewarded, not only by weather which was sometimes blustery and intermittently sunny, but also by the profusion of late June flowers.

Lubec Ridge is located a few miles past Marias Pass before the Blackfoot Reservation. This location provides a mixture of habitats ranging from open, rocky slopes to small lakes along with forests and moist areas. One finds plants that normally grow on the wooded west slopes of the continental divide as well as plants which favor the open plains of the east. We found 82 species in four hours of gentle hiking.

This area is prime grizzly bear habitat and there had been several sightings by hikers in the area over the previous month, so we proceeded with caution. There certainly was plenty of fresh evidence of bear activity, in particular on some drier open slopes



TeePee Mountain Hike

By Jon Reny, Western-At_Large

If I was a believer in the supernatural, I would think a curse has been placed upon this chapter's annual hike with Pete Lesica. One year it was an exploding car battery, another time the map just somehow disappeared. Well, this year didn't fail us... On the morning of the hike, Pete woke to a runny nose and an overall yucky feeling. In these times, it's best to not ignore any symptoms. Well, he and Rosella met us in the morning, explained the situation and then, sadly, they departed.

That left nine mostly healthy and hale hikers, all from Libby, Troy or the Yaak, to press on. We carpooled to the trailhead, re-arranged our packs, grabbed plenty of water and at once began finding plants that demanded we stop and discuss their merits. It was interesting in that there always seemed to be ripe huckleberries at these discussion stops. The two-mile walk to the

ridge went through a few rocky openings that we all said would have been great to visit a bit earlier in the year. We had lunch on the ridge and then turned south towards Teepee and the 2015 burn. It was quite hot up on the open ridge, but the group agreed we wanted to reach the burn before turning around...and that is what we did. There was a dramatic change in the vegetation when we entered the burned area. Much lusher and more verdant. Very cool.

where it appeared that bears had been digging up the roots of *Lomatium sandbergii*. Perhaps the most exciting finds of the day were in the orchid family. We found *Platanthera* almost immediately as we started our hike; *Coeloglossum viride* (long-bracted green orchid) and *Cypripedium montanum* were near the path. In nearby woods we located a patch of brown-ish stemmed *Corallorhiza maculata* with spotted lips and a few remaining robust bright yellow *C. maculata* with unspotted white lips. Other special discoveries were a profusion of *Orobanche uniflora* (naked broomrape) growing in conjunction with *Sedum* and masses of *Lewisia pygmaea* (pygmy bitterroot) with its long, flat leaves and delicate flowers.

All in all, it was a highly successful trip! We did not cover a great deal of terrain, but we enjoyed colorful fields of flowers and a great day of "bottomising".



Left: Rosemary and Karin on the Lubec Ridge field trip.
Above left: Long-bracted green orchid (*Coeloglossum viride*).

Above right: Pygmy bitterroot (*Lewisia pygmaea*).

Overall, we recorded 50 species in bloom with two purple asters not identified to the species level. We saw four orchids, both pinedrops and pinesap, three native hawkweeds, a couple of penstemons, some lovely, white-veined wintergreen, and did I mention ripe huckleberries?

After the hike, Pat shared some homemade kombucha and Betty gave away lettuce to all.



Lindy Peak Hike

By Jon Reny, *Western-At-Large*

We recorded 60 species on a great day for a hike! There were a few plants not yet in flower and though we knew most of them, there were one or two immature Asters we weren't able to positively identify to the species level. But that was okay.

It was a small group of hikers - six folks. Two came over from the Olney area and the rest were Libby or Yaak folks. On the drive to the trailhead, we had to make a quick stop as we spotted a ladyslipper (*Cypripedium montanum*) growing right on the side of the road. The three-mile hike to the top was a leisurely stroll, as we stopped often to discuss plants, forest management, soils, the weather, life and living in NW Montana. No one seemed to be in a big hurry; well, maybe I wanted a bit more of a push. About half way up, we took a break at the "Sniffing Tree." This large ponderosa has a strong butterscotch aroma. This is also where a known population of Geyer's biscuitroot can be found (*Lomatium geyeri*). We saw leaves of the plant and a few of its fruiting structures.

Near the top, the trail goes on the edge of a recent cutting unit. One of the trees left as a seed source was struck by lightning earlier

this year. We saw the spiral scar on the trunk and marveled at how far debris was thrown. The power is impressive. We had lunch at the top beneath the old tree-stand lookout.

On the way back to the cars, we still came across new plants - my favorite was the broomrape (*Orobanche uniflora*, or as it now known: *Aphyllon purpureum*). This naming update brought on a discussion of how many plants are being regrouped and renamed. On the drive home, we stopped at the ladyslipper to look for more plants, but this was the only one we saw. Interesting indeed.



Introducing the University of Montana Herbarium's New Curator: Giovanna Bishop

Quote reprinted from Friends of the University of Montana Herbarium Spring 2023 Newsletter

"My passion for herbaria and natural history collections started at Wheaton College (MA) where I was an undergraduate. The first collection I databased was a historic mollusk collection that had been sitting in boxes for decades. However, I quickly learned my passion was botany, specifically taxonomy, floristics and identifying plants. Ultimately, the challenge, patience and meticulousness of lichens and



bryophytes caught my attention. After I graduated with a B.S. in Environmental Science, I started working at The Farlow Cryptogamic Herbarium at Harvard University Herbaria (HUH). During my time at HUH, my love for herbaria blossomed. I was formally trained on

herbarium practices such as mounting vascular specimens, filing, curating lichens and bryophytes, as well as databasing, imaging and much more. After a few years working I knew graduate school would allow me to pursue a job as a curator, and I applied to work with Dr. Jessica Allen, a lichenologist at Eastern Washington

University (EWU). My M.S. project was on the impacts of rock climbing on lichen and bryophyte cliff communities at local rock climbing areas near Spokane, WA. I collected many state and county records including the crustose lichen *Henrica americana*, which had only been previously known to Montana and is widespread throughout Europe. I hope to continue collecting, identifying and studying both lichens and bryophytes and to follow my passion for preserving the environment and natural history collections as the curator of MONTU. My past outreach activities include forays, bio-blitzes, leading hikes on lichens and bryophytes and educating youth about the importance of the environment and different ecosystems. One of my goals as curator is to recreate the community the herbarium had before the pandemic, and to advocate for the continued growth of the collections as a high-standard research source for the state of Montana and beyond."

Any Native Plant Society community members should feel free to reach out to Giovanna via email at: Giovanna.Bishop@mso.umt.edu with any questions, or inquiries. Giovanna enjoys giving tours and setting up educational opportunities for groups, classes and for events. Be on the lookout soon for updates on Herbarium Nights that will be coming back this late fall and winter. You can become a member of the University of Montana Herbarium or donate through our website (<https://www.umt.edu/herbarium/friends-of-the-herbarium/>). As always, we appreciate your support of the collections as we continue to preserve and catalogue the flora of Montana and beyond. Thank you!

MONTANA NATIVE PLANT SOCIETY MEMBERSHIP

Name (please print) _____

Address _____

City, State, Zip _____

E-Mail _____

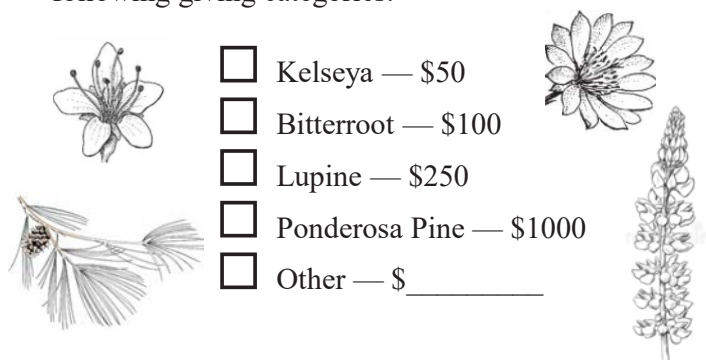
Phone _____

**JOIN, RENEW, OR DONATE
ONLINE AT
www.mtnativeplants.org**

Please notify us promptly of address changes (physical or email) at mtnativeplantmembership@gmail.com

<input checked="" type="checkbox"/>	Membership Type	Dues
<input type="checkbox"/>	Individual	\$30
<input type="checkbox"/>	Family	\$50
<input type="checkbox"/>	Business/Organization	\$75
<input type="checkbox"/>	Living Lightly/Student	\$20
<input type="checkbox"/>	Lifetime-Individual Only (one-time payment)	\$1,000
<input type="checkbox"/>	Paper Kelseya Fee Add \$10 if you wish to receive a paper copy of our quarterly newsletter Kelseya, otherwise an e-version of Kelseya will be delivered via email	\$10

An **additional donation** to MNPS helps support conservation action, educational programs, and botanical research. Donors will receive acknowledgement of their contribution in the spring issue of *Kelseya**. You can select from the following giving categories:



- ☐ Kelseya — \$50
- ☐ Bitterroot — \$100
- ☐ Lupine — \$250
- ☐ Ponderosa Pine — \$1000
- ☐ Other — \$ _____

- ☐ *Check if you wish your donation to be anonymous
- ☐ Check if you wish to be contacted for volunteer opportunities

Membership in MNPS is on an annual basis, March 1st to February 28th. Memberships processed before November 1st will expire the following February 28th. Memberships processed after October 31st will expire February 28th of the year after.

MNPS Chapters and the Areas They Serve

Members are welcome to affiliate with any chapter.

Please select ☒ your chapter affiliation.

- ☐ **Artemisia** (Yellowstone, Golden Valley, Musselshell, Rosebud, Treasure, Big Horn, Carbon, & Stillwater Counties)
- ☐ **Calypso** (Beaverhead, Deer Lodge, Silver Bow & parts of Madison Counties)
- ☐ **Clark Fork** (Mineral, Missoula, Powell, Granite, Ravalli & parts of Lake Counties)
- ☐ **Flathead** (Flathead & parts of Lake and Lincoln Counties)
- ☐ **Kelsey** (Lewis & Clark, Cascade, Pondera, Teton, Chouteau, Judith Basin, Meagher, Broadwater & parts of Jefferson Counties)
- ☐ **Maka Flora** (Richland, Roosevelt, McCone, Sheridan, Daniels, Dawson, Prairie, Wibaux, Custer, Fallon, Powder River & Carter Counties)
- ☐ **Valley of Flowers** (Gallatin, Park, Sweet Grass and parts of Madison Counties)
- ☐ **Eastern-at-Large** (Glacier, Toole, Liberty, Hill, Blaine, Phillips, Valley, Garfield, Petroleum, Fergus, & Wheatland Counties)
- ☐ **Western-at-Large** (Sanders & parts of Lincoln Counties)

Total Enclosed \$ _____

Make checks payable to: **Montana Native Plant Society**
Please mail this form with your check to:

**MNPS
PO Box 8783
Missoula, MT 59807-8783**

**Welcome to the
Montana Native Plant Society!**

Memberships are processed on a quarterly basis so you may experience a slight delay in membership recognition and benefits. We appreciate your patience with our all-volunteer organization.



MONTANA NATIVE PLANT SOCIETY

P.O. Box 8783

Missoula, MT 59807-8783

PRSRT STD
US POSTAGE
PAID
Plains, MT
59859
PERMIT NO. 3

© Copyright 2023
Montana Native Plant Society
Printed on recycled paper

About Montana Native Plant Society

The Montana Native Plant Society (MNPS) is a 501(c)(3) not-for-profit corporation chartered for the purpose of preserving, conserving, and studying the native plants and plant communities of Montana, and educating the public about the value of our native flora. Contributions to MNPS are tax deductible, and may be designated for a specific project or chapter, for the Small Grants Fund, or the general operating fund.

Your yearly membership fee includes an electronic subscription to *Kelsey*, the quarterly newsletter of MNPS. We welcome your articles, field trip reports, book reviews, or anything that relates to native plants or the Society. Please include a line or two of "bio" information with each article. Drawings should be in black ink or a good quality photocopy. All items should be emailed to scottguse@yahoo.com and jenhintzguse@gmail.com, or mailed to: Scott and Jennifer Guse, *Kelsey* Editors, 725 Twin Lakes Road, Whitefish, MT 59937.

Winter issue deadline is December 10

Please send web items to our webmasters:

Bob Person and Carol Goffe at mnpwebmaster@gmail.com

Advertising space is available in each issue at \$5/column inch. Ads must be camera-ready and must meet the guidelines set by the Board of Directors for suitable subject matter; that is, be related in some way to native plants or the interests of MNPS members.

If you would like extra copies of *Kelsey* for friends or family, contact the Newsletter co-editors at: scottguse@yahoo.com or jenhintzguse@gmail.com. No part of this publication may be reprinted without the consent of MNPS. Reprint requests should be directed to the newsletter co-editors.

Changes of address and inquiries about membership should be sent to **MNPS Membership, P.O. Box 8783, Missoula, MT 59807-8783.**

Please visit our website at www.mtnativeplants.org

MNPS BOARD OF DIRECTORS

Co-Presidents	Robert Pal	Butte	496-4725
	Dave Hanna	Choteau	788-4938
Past-President	Patrick Plantenberg	Townsend	431-4615
Vice President	Kenda Herman	Clancy	683-2737
Secretary	Camie Westfall	Helena	363-8295
Treasurer	Laurie Kurth	Frenchtown	626-4462
Newsletter Co-editors	Scott Guse	Whitefish	998-7638
	Jen Hintz Guse	Whitefish	270-7028

Directors At-Large

Eastern Montana	Kelsey Molloy	Malta	654-4566
Western Montana	Jon Reny	Libby	334-0459

Chapter Representatives

Artemisia Chapter	Jessica Callahan	Billings	507-696-5467
Calypso Chapter	Catherine Cain	Glen	498-6198
	Karen Porter	Butte	498-9728
Clark Fork Chapter	Teagan Hayes	Missoula	920-979-9009
Flathead Chapter	Tara Carolin	Kalispell	607-7670
Kelsey Chapter	Devon Malizia	Helena	727-492-7810
Maka Flora Chapter	Fraser Watson	Sydney	703-509-0152
Valley of Flowers Chapter	Gretchen Rupp	Bozeman	586-8363

Standing Committees

Conservation	Elizabeth Bergstrom	Ennis	581-6571
Landscaping/Reveg	Patrick Plantenberg	Townsend	431-4615
Membership	Maria Mantas	Bigfork	407-2045
	Sasha Victor	Missoula	407-2045
Small Grants	Betty Kuropat	Troy	295-7143

Moving? Please let us know at mtnativeplantmembership@gmail.com