# Volume 35 No. 1 | Fall 2021 Rewsletter of the Montana Native Plant Newsletter of the Montana Native Plant Society Kelseya uniflora ill. by Bonnie Heidel

## **MNPS FIELD TRIPS**

# Engaging Botany Buffs Throughout the State

### **Forest Mosses of the** South Hills

By Andrea Pipp, Kelseya Chapter

In Montana, it's always a good idea to have a back-up date for spring field trips. After our 16-inch snow dump in May, Botanists Justina Dumont (Helena-Lewis & Clark National Forest) and Andrea Pipp (Montana Natural Heritage Program) led a June 5th hike to learn some common forest mosses. Our destination was the Wakina Sky trail in Helena's 'backyard'. Stepping off trail and getting down on all fours, the group of about 10 learned how to see a moss. We examined their different growth forms, branching patterns, leaf shapes, shades of green to gold, and found their unique microsites. All in all, we learned 11 moss species such as Frizzled Crisp (Tortella tortuosa), Broken Top Dicranum (Dicranum tauricum), and Frightened Cattail (Rhytidiadelphus triquetrus). We also learned about their reproduction and many important ecological roles that often go without due credit. We marveled at

their ability to spring to life with a spray of water. It was a great ½-day trip with inquisitive members who also shared their knowledge. With handouts



Dicranum tauricum; Wakina Sky Trail, Helena, MT

that were provided, we hope each person will find these mosses again on their next walk in the South Hills of Helena.



## Field trip to the Long Lake Area of the **Beartooth Mountains**

By Jennifer Lyman Photos by Ray McMaster and Lee Hauge, Eastern-At-Large Chapter

Our July 10th field trip took us to an area of the Beartooth range that was relatively wildfire smoke-free. The weather was perfect for admiring the flora of the subalpine meadow area northwest of Long Lake. Our enthusiastic group of 14 were amazed by the beauty of the meadows and wetlands which were showing their best colors. The mountain meadow plants that we saw included Pedicularis groenlandica, Castilleja rhexifolia, Trollius albiflorus, Isoetes bolanderi, and two color morphs

of Lewisia pygmaea. I had seen Botrychium simplex in the meadows near Long Lake last year so we searched for it with no luck (likely a bit early). The photos of our trip tell the story of a wonderful field day for all of us.



Lewisia pygmaea



White-petaled Lewisia pygmaea



## **Chapter Events**

## Let's Stay Connected!

In addition to local chapter meetings, MNPS will continue to host statewide Zoom programs for our full membership this winter, starting in November. Members will receive email announcements for each monthly program. Ideas for speakers? Questions? Contact program coordinator Beth Madden bethmadden64@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.

Please stay tuned, as plans could rapidly change!

Thursday October 14, 7:00 p.m. Grow Native Plants from **Seed!** Join professional grower, **Kathy Settevendemie** to learn how to stratify, scarify and prep seeds for germination. Strategies for maximizing seedling survival and establishing healthy native plants will be covered. This workshop is intended for those growing plants for MNPS plant sales or anyone interested in growing native plants. UM Campus, Natural Sciences Building,

Room 202. Masks are required in all university buildings.

**Thursday November 4, 7:00 p.m.** Common Forest **Diseases and Insect Problems in Montana.** Were you ever out in Montana's forests and wondered why those trees were dead or why some needles were brown? Come and find out when Amy Gannon, the DNRC Entomologist and Forest Pest Specialist, tells us about Common Forest Diseases and Insect Problems in Montana. Room L09 Gallagher Business Building, UM Campus. Masks are required in all University buildings.

**Thursday December 9, 6:30 p.m.** Our annual Christmas **potluck** will again be held in the Del Brown Room in Turner Hall on the UM Campus on the northwest side of the Oval. Parking will hopefully be available west of the Gallagher Building in lots or on the streets off of Arthur and Connell. Bring plates, utensils and a dish to share. Alcoholic beverages are okay. Please don't forget to bring a few of your favorite digital wildflower photos from the summer. Call Peter (728-8740) or Kelly (258-5439) if you have any questions. Please be aware that this could easily be canceled, since it is hard to eat and wear a mask at the same time.

### **Eastern At-Large**

Contact Jennifer Lyman for all field trips or information at (406)860-0223 or jenclyman@gmail.com.

On June 11th, Jennifer Lyman held a plant identification class for 12 participants, using samples of five different plant families to introduce students to the key characters for each group. The class was held at the Hero STEAM center in the Red Lodge Community Roosevelt Building. Adults and several young people from as far away as Billings attended. Interest is high for potential additional classes this winter, so stay tuned.

### Flathead Chapter

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

Given the current COVID-19 situation in Flathead County, the Flathead Chapter organizers have decided meeting in person this fall, or early winter is not in the best interest of the health and safety of our community or ourselves. We deeply regret this and are certainly hoping to be able to meet in person later this winter. We hope to see you in November on Zoom.

#### Wednesday, November 17th on Zoom. Let's Share

Some Wildflower Adventures! Submit your favorite native plant photos from this summer, or before, and we'll gather to view and talk about them via Zoom. The photos can be your favorites from a particular trip you want to share, those needing ID or whatever you think others might want to see. Please send a note to mnps.flathead@gmail.com, by October 15th, if you are interested. We will send you more details and a link to uploaded photos.

## **Kelsey Chapter**

*Info: Mark Majerus (president) or Jane Fournier (secretary) at* kelseychaptermnps@gmail.com.

The Kelsey Chapter is in the planning stages for fall and winter activities. Stay tuned!

## Maka Flora Chapter

Info: Bob Srygley at 406-488-6086, robert.srygley@usda.gov.

## Valley of Flowers Chapter

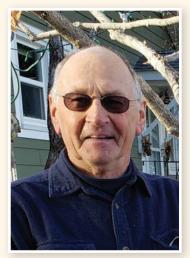
Info: Gretchen Rupp at 406-586-8363, beesgr@yahoo.com.

The Valley of Flowers Chapter meets the second Tuesday of each month at 7:00 p.m. In-person programs take place in Room 108 of the Plant Bioscience Building on the MSU campus. This fall, meetings may be in-person, online, or both. For information on upcoming meetings, consult the chapter's web page (under "Activities / Chapters" on the MNPS website), its Facebook page, or contact Gretchen Rupp at 406-586-8363 or beesgr@yahoo.com.

## Western At-Large

Info: Kris Boyd at 406-295-9414, boyd.kristina@yahoo.com

## President's Platform



MNPS President, Patrick Plantenberg

hen I resigned as Secretary of the MNPS many years ago after 20 years of service I thought I had completed my obligation to this great organization. You can imagine how surprised I was to when I received a call to step in again and run for President. I wondered how many other candidates were called before me that said "No!". I talked to my wife, and we finally decided this is the one last best thing

I could do to help this wonderful group of people and our wonderful native flora. I am looking forward to my term helping our native plants and serving our 800+ members.

Our Annual Membership Meeting is scheduled for October 10th. The Board wants to keep the annual business portion of the meeting short and sweet. The meeting will be followed by virtual 2021 field trip presentations presented by field trip leaders. Don't miss out. The presentations may give you some ideas for your own trips in 2022.

What are some of the most valuable things we do as a society that I will promote?

Field Trips - MNPS members love field trips. Field trips were limited in number and size this past spring and summer due to COVID-19 concerns. We must get members back in the field. What a great way to get out and enjoy Montana, network with fellow plant enthusiasts, and learn more about native plants and issues affecting them

(e.g., fire, invasive species, etc.). You can be assured I will advocate and support more field trips across Montana in the coming year. Hopefully, by next spring we can increase the number and size of our trips. Please consider leading a trip in your area. Contact your local Chapter and set one up. Start planning now. The networking is great!

Helping Native Plants - The Conservation Committee and other MNPS members continue to review plans proposed by state and federal agencies and laws proposed by the legislature hoping to influence decisions that would negatively affect native plant communities on public land. Private land development is surging like COVID-19 in Montana. Native plant communities are suffering. Please consider joining the Conservation Committee and fight for our native communities and sensitive plants on public as well as private

Educating our Members - Zoom, Web-ex, and other digital formats changed our society drastically from groups having relatively small meetings in person to large groups meeting digitally especially in the fall and winter. Beth Madden has volunteered to organize five more programs this fall and winter. These digital sessions especially help our rural members who have limited access to programs in university towns. Please let us know what type of programs and speakers you would like us to organize.

Landscaping with Natives - There is a continuing increase in the use of native plants in landscaping but there are limited species available. Audubon is helping MNPS by asking that native species be planted to help save native birds. MNPS must reactivate our Landscaping Committee to forward this effort. I hope to continue to develop partnerships with groups such as Audubon who share our love for native plant species.

I'm looking forward to meeting and working with all of you over the next two years. Please call me anytime with questions or concerns (406-431-4615).



Castilleja mineata from Clark Fork Chapter Hoodoo Pass Field Trip, Photo ©Kristi DuBois. More on page 10.

## Don't Miss the Annual **Membership Meeting!**

The 2021 Member Meeting of the Montana Native Plant Society will be Sunday, October 10, from 7:00 - 9:00 **p.m.** via Zoom. After a short business meeting, there will be prize drawings and myriad virtual field trips with gorgeous photos. The Zoom link will be sent via e-mail.





# **Conservation Corner**

## Mapping a Rare *Phlox* Species in the Hellgate

By Peter Lesica, Conservation Committee Co-chair, Clark Fork Chapter

¶ he valley of the Clark Fork River, just east of Missoula, is called Hellgate Canyon because of the fierce winds that come from the east whenever there is an arctic high pressure system east of the Continental Divide. Some of the ridge crests just west of the Hellgate support cushion plant communities, dominated by low-growing species such as oval-leaf buckwheat, douglasia, hairy goldenaster and wooly groundsel. Cushion plant communities are usually found in windswept areas of high-elevation landscapes, so the Hellgate cushion communities are unusual. In 1939, M. J. Reed collected a species of phlox in the Hellgate cushion communities. Edgar Wherry, the phlox expert at the time, described this plant as a new species, Phlox missoulensis



Phlox mapping volunteers Joe Elliott, Peter Lesica and Paul Buck; Clare Beelman and Ed Monnig left prior to the photo opp.

(Missoula phlox) in 1941. Twelve years later Arthur Cronquist decided it should be considered a variety of Phlox kelseyi, a similar appearing species of wet habitats in southwest Montana. A recent, as yet unpublished, Flora of North America monograph considers Missoula phlox a distinct species that occurs only in the hills near the mouth of Hellgate Canyon.

The cushion plant communities that harbor the rare Missoula phlox occur in a very arid environment of the wind-blown ridge tops. They are very sensitive to physical disturbance. Unfortunately, the largest population, which is on Missoula City lands, has been reduced by a road which is now a popular hiking trail that becomes wider every winter. Early this spring, five volunteers from the MNPS Clark Fork Chapter joined three managers with Missoula Parks and Recreation Department to map the population to better plan conservation measures for this globally rare plant. We spent the day walking transects parallel to the ridge crest to determine where trails should be closed and where they could safely be constructed. Inventories are also being conducted on other ridges west of the Hellgate.

## **Developing a Citizen Botany Program for Plant Species of Concern**

By Elizabeth Bergstrom, Conservation Committee Co-chair, Valley of Flowers Chapter

he Montana Native Plant Society and Montana Heritage Program are working together to develop a Citizen Botany Program. This state is home to more than 4,590 vascular plant, bryophyte, and lichen species, varieties, and subspecies. Of these, 564 taxa are considered rare and have been designated as a Species of Concern or Potential Species of Concern. For the 389 vascular plants with a rare designation, many of the documented sites (also known as occurrences) have not been visited for the last 20 to 60 years. The occurrences for

the rare vascular plants are scattered over 6,200 documented sites. These sites need to be revisited and updated with current information regarding the status of rare species.

To approach updating historic plant occurrence information (a seemingly insurmountable task), State Heritage Programs, Native Plant Societies and Master Naturalist Programs and other organizations throughout the United States have initiated citizen science programs. Examples include Washington State's "Rare Care Program," the American Gardening Society's, "Partners for Plants" and California's "Rare Plant Treasure Hunt Program". Throughout various aspects of natural science programs and conservation, citizen volunteers have provided a critical contribution.

A Citizen Botany working group was formed in 2019. The group included State Heritage Botanist, Andrea Pipp, and four MNPS members, Ryan Quire, Caroline Kurtz, Denise Montgomery, and Elizabeth Bergstrom. The group reviewed various volunteer-based science programs both from within and outside of Montana. A proposed framework for a Montana Citizen Botany Program was written by Andrea in March of this year. The next step will be further discussions between MNPS board members and Heritage Program Staff. Funding for aspects of the program, potentially through grants, will be needed.

At the 2022 Annual Meeting we are planning a session for interested participants to test field collection protocols and provide feedback on the use of electronic data collection. This is an exciting opportunity to become involved with a critical aspect of rare plant conservation.

# It's That Time Again: **2022 MNPS** Grant **Applications**

By Betty Kuropat, Small Grants Committee Chair

t's time to starting planning projects you or someone you know wants to accomplish next year. The annual Montana Native Plant Society (MNPS) Small Grants competition is for projects or studies that: 1) stimulate research, conservation and educational activities that help foster an appreciation of Montana's native plants and plant communities; and 2) promote native plant conservation through better understanding of Montana's native flora and vegetation and factors affecting their survival. Projects must pertain to Montana native plants and applicants must address specific criteria and formatting requirements. Proposals that meet the criteria will be considered for a grant up to \$1500. We prefer proposals that demonstrate initiative and cooperation with others. Grant recipients will be required to submit a final report by January 2023.

Eligibility criteria, application instructions, and grant dollar limits will be posted by November 1, 2021 on the MNPS website, https://www.mtnativeplants.org/ small-grants-program/ or contact Betty Kuropat, Small Grants Committee Chair at blueirismt@gmailcom.

> **2022 Small Grants Proposals** must be emailed by January 31, 2022.



Grass of Parnassus (Parnassia fimbriata), from Clark Fork Chapter Hoodoo Pass Field Trip. Photo © Kristi DuBois. More on page 10.

## FERNS and FORESTS 2022 Annual Meeting

¶ he Flathead Chapter and Western Members-at-Large are hosting the long postponed 33rd Annual Meeting June 24-26, 2022 at Timberlane Campground, 8 miles north of Libby, just off the Pipe Creek Road on the Kootenai National Forest.

The rustic campground has vault toilets, water, 11 pull in campsites, plenty of room for tent camping and a small pavilion. If you need other accommodations, consider making reservations early in or around Libby since summers are busy.

We have the campground reserved on Thursday night, June 23rd, as workshops will start on Friday. Make time for a long weekend adventure! Writer, storyteller and educator extraordinaire, Jack Nisbet (http://www.jacknisbet.com), is joining us as our guest speaker. Field trips will explore the ferns, forests and flowers of this damp part of Montana, including the nearby Cabinet Mountains.

We don't know what the COVID-19 situation will be in June 2022, but please be assured we will plan accordingly for the health and safety of attendees.

Mark your calendar and watch for more details in the Winter and Spring Kelseyas or the MNPS Annual Meeting web page: <a href="https://www.mtnativeplants.">https://www.mtnativeplants.</a> org/annual-meetings/. We look forward to seeing you and all our plant enthusiast friends at the upcoming Annual Meeting!





# WELCOME NEW MEMBERS!

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

#### **Clark Fork Chapter**

Christine Carson, Olga Helmy, Carrie Jamrogowicz, Rita Jankowska-Bradley and Cliff Bradley, Thomas Merrick, Raelynn Roadhouse, Pamela Small, Anne Swentik, Renee Taaffe

#### **Flathead Chapter**

Charles Bickenheuser, Heather Blazejewski, Lynne Metcalfe, Michele Page, Lisa Ranalli, **Timothy Richter** 

#### **Kelsey Chapter**

Nan Breuninger, Judy Fjell, Sandy Hugus, Nate Kluz, Katie Knight, Leslie Soule

#### **Valley of Flowers Chapter**

Nancy Bryant, Kathryn Eszeki, Reagan Hooton, Megan Randall, Vicki Regula

#### **Eastern Montana at Large**

Genoveva Salazar, Dave & Sue Tarbell

**Western Montana at Large** 

**Amber Bowes** 



## MNPS FIELD TRIPS

(continued from page 1)





The beautiful flora of the Long Lake meadows

### **Botanical Sketchbook**

by Karen Nelson, Kelsey Chapter

On a beautiful cool sunny June Saturday, several MNPS members met in the Elkhorn Mountains to learn the basics of botanical drawing and nature journaling. Botanical artist Jane Fournier introduced our group (ranging from complete beginners to the very artistic) to the joys of spending quality time with plants. I was a complete beginner and hadn't drawn anything since sketching diatoms while working towards an M.S. degree over 20 years ago. Jane and her accomplished friend, Connie Geiger gave us some instructions, art supplies, and an assignment. Soon everyone was engrossed in a plant they had picked to sketch. I was amazed at how quickly the morning slipped away from us as we sketched. I was appreciative of the helpful hints that



Jane and Connie provided. I was also surprised at how drawing my chosen plants enhanced observation skills; I'll never walk by an Arnica plant without

thinking again of sketching its leaf. Jane says that Botanical sketchbooks and nature journals can serve a multitude of purposes from recording scientific information

and observations to a journal of personal discoveries and adventures. I will take advantage of another outing like this in the

### An Evening of Wildflowers & Insects on Priest Pass

by Andrea Pipp, Kelsey Chapter

Montana's State Entomologist, Alyssa Piccolomini and Botanist, Layla Dunlap, led an evening outing at Priest Pass on June 17th. Using insect traps and nets was a perfect way to find and identify various forbs and see a diversity of beetle, bee, and fly species and more. The event was well attended with about 20 folks who spanned from the teenage to retirement years. The rough fescue (Festuca campestris) grassland hosted at least 30 species of plants such as Camas (Camassia quamash), Moss Phlox (Phlox muscoides), Idaho fescue (Festuca idahoensis), pasqueflower (Anemone patens), several species of groundsel (Senecio).

## **Spring Meadow Plant** Surveys

by Andrea Pipp, Kelsey Chapter

At the request of Amanda Coyle, AmeriCorps intern for Spring Meadow Lake State Park, Kelsey Chapter members conducted three surveys from May to July to document locations of native plants. The surveys were successful, and we are grateful



Members from the Kelsey Chapter recording information for a sign on Artemisia cana. Photo by Andrea Pipp

for the leadership from botanists Klara Varga, Scott Mincemoyer, and Drake Barton along with many members who searched, identified, and photographed the plants. This effort has helped Amanda determine the best placement for educational signs that will identify some of the native species in the park and their cultural uses. The Kelsey Chapter is assisting with the costs to create the signs. More news to come as the project progresses.

## **Invasive Species of Owen Sowerwine Natural Area**

by Pat Jaquith, Flathead Chapter

On April 17th we toured part of the Owen Sowerwine Natural Area with Flathead Audubon to observe the massive invasion of Rhamnus cathartica (Common

buckthorn) and the beginning of an invasion of Daphne mezereum, an introduced Eurasian shrub that has escaped from gardens. We walked the trails listening to

bird calls





while observing the resurgence of native Populus balsamifera (cottonwood) in areas where the invasive plants have been cleared.

#### **Bowser Lake**

by Pat Jaquith, Flathead Chapter

On July 6th, we enjoyed a late afternoon walk to Bowser Lake in the northwestern part of Kuhn's Wildlife Management Area. Unexpectedly, many of the wildflowers that we hoped to see had already gone dormant due to the heat and drought. However, there were still a few plants to see. There are both Fragaria vesca (Woodland strawberry) and Fragaria virginiana var platypetala (Wild strawberry) on the shore of Bowser Lake. We practiced seeing details to distinguish





between the two strawberries. Bowser Lake is a shallow saline lake rich in minerals beneficial to deer and elk and is preserved as part of their winter habitat. Brine Shrimp live in the lake and provide food for some bird species as do the brine flies that hatch out along the edges. With only snow and rain to fill the bentonite depression, it often dries out completely in summer.

## Swan River National Wildlife Refuge

Joint field trip with Flathead Audubon by Maria Mantas, Flathead Chapter

Ten members of MNPS and Flathead Audubon met early one morning in late June at the Swan River National Wildlife Refuge. Our purpose was threefold. First, we learned of the upcoming restoration project planned by the USFWS from Luke Lamar of Swan Valley Connections. The project will focus on restoring hydrology to parts of the refuge that were ditched and drained decades ago. The hope is that by increasing the elevation of water to pre-settlement levels the invasive reed canary grass can be reduced in some areas. The other two objectives were to see and identify as many



Swan Marsh Lily pads, photo by Maria Mantas

birds and plants as possible, with the aid of trip leaders Cory Davis and Maria Mantas. We added some interesting avian species to our growing list (this is our third trip to the refuge), including horned lark and Bullock's Oriole. The lush refuge is habitat for many willows, sedges, and wetland forbs which we observed and admired!

## Wildflowers of **Huntsberger Lake**

by Kevin O'Bryan, Flathead Chapter

Those not deterred by wildfire smoke from afar or the nearby Hay Creek Fire were rewarded with some clearing and a fine day to venture to Huntsberger Lake, nestled in a subalpine basin under the Whitefish Range Divide. One goal was to see white-flowered rhododendron (Rhododendron albiflorum). usually found in upper montane to lower subalpine environments in moist openings, clearings, and forests. Although hike leaders Jack and Rachel Potter found white rhododendron in bloom at this time last year, we arrived a week past peak bloom, no surprise in this hot, dry year, but we saw



lots of plants and faded flowers.

Interestingly enough, white-flowered rhododendron, a shrub associated with Pacific Northwest flora, is found

in the Whitefish Range, in British Columbia, in the

Bob Marshall Wilderness and elsewhere in West Central Montana, but has not vet been found in Glacier National Park. It is recognized by notably shiny, oblong leaves with fine rusty hairs on the upper surface; the leaves sometimes arrange about the stem in a whirl. Young twigs are often covered with coarse red hairs. The flowers are large showy clusters of cup-shaped creamy flowers borne on the stem of the previous year's growth.

Other members of the Heath Family (Ericaceae) were well represented on the hike including fool's huckleberry (Rhododendron menziesii) and Labrador Tea (Rhododendron groenlandicum). Rachel pointed out that both fools' huckleberry and Labrador Tea were both formally in separate genera (Menziesia ferruginea and Ledum groenlandicum, respectively) but have recently been re-assigned to the Rhododendron genus in the 2017 edition of Flora of the Pacific Northwest, and is "well supported by molecular evidence" according to Heath Family author, MNPS's Peter Lesica.

Huntsberger Lake was loaded with rising trout but unfortunately, no one thought to bring a fishing rod. The lack of trout for lunch was more than made up for by a stunning assemblage of wildflowers around the lake. A good time was had by

### Pattee Canyon Walk; Blue Camas and Balsamroot

by Annie Garde, Clark Fork Chapter

Fun Fact: In Missoula, it's not necessary to drive a long way to see the beautiful

> blooming blue camas (Camassia quamash). It's 15 minutes from downtown! On a pleasant evening in late May, a group of 10 MNPS members joined me on a walk in Missoula's Pattee Canyon to observe a display of this iconic flower of the Salish people. It blooms up there in the moist meadows and woods at the base of the backside of Mount Sentinel. Perhaps not in the quantities that made Lewis exclaim in 1806 "at a short distance, it resembles lakes of fine blue water", but impressive anyway. This herb grows from a bulb with a leafless stout stem topped with the large showy blue star shaped

flowers with bright vellow stamens.

Rhododendron albiflorum

©Bruce Selvem

Lots of other spring flowers were in bloom, including the bright vellow and very fragrant flowers of Oregon Grape (Mahonia repens), along



Camassia quamash

with the white flowered serviceberry (Amelanchier alnifolia), and two or three species of pussytoes (Antennaria sp). Larkspur (Delphinium bicolor), biscuitroot (Lomatium sp), and even calypso orchids were decorating the trail as we went up to see a hillside full of Balsamroot (Balsamorrhiza sagittata). Along the way, we bowed before the great Grandmother tree, a huge Ponderosa pine (Pinus ponderosa). It took five of us holding hands to circle the massive trunk of that ponderous pine. All in all, a lovely evening in the woods with friends both human and plant.

Continued on page 9





## Gardener's Notebook

**Using Native Plants in Backyard Landscaping** 

## Echinacea angustifolia

By Kelly Chadwick

ecember 16, 1804, the root of a plant was given to William Clark at Fort Mandan to be used as a "cure of a mad dog, also handy as a remedy for

toothache, snake bite, other bites and stings and several poisonous conditions". This plant was narrow-leaved purple coneflower, also known as snakeroot, scurvy root, comb flower and hedgehog.

*Echinacea* is derived from the Greek "echinos" meaning hedgehog, referring to the spiny center cone; "angust" means narrow, and "folium" refers to a leaf. This species is native from the plains of Montana to eastern Minnesota and from Saskatchewan to Texas. In Montana, it typically grows in rocky or sandy soils of the plains, but it may be found in

drainages, depressions, and open ponderosa pine stands. Echinacea's showy, pink to lavender flowers may be seen growing among little blue stem, western wheatgrass, blue grama, prairie junegrass, buffalo grass, needleand-thread grass, sagebrush, blazing star, purple prairie clover, blue flax, and numerous other wildflowers and grasses.

The coarse, hairy, narrow, basal leaves are wind resistant. These, along with a branched, woody taproot that can grow to a depth of 6.5 feet, help *E. angustifolia* survive harsh environments with cold winters, hot summers, drought, and strong winds.

Echinacea provides nectar to many species of bees, butterflies, beetles, and flies and is a source of seeds for songbirds. *E. angustifolia* is a primary nectar source for the Ottoe Skipper (Hesperia ottoe, a Montana native butterfly species of concern), which at times lays its eggs on the head of the coneflower.

For hundreds of years this important plant has been a remedy for numerous health concerns of the Bee pollinator with "pollen pants" on E. angustifolia; Photo by Matt Lavin





Indigenous peoples of the Great Plains and Canadian Prairies. It has been used to treat toothaches, sore throats, headaches, sore eyes, wounds, burns, enlarged glands, snakebite, stings, poisonous conditions, rheumatism, stomachaches and many more conditions.

Native Americans introduced *Echinacea* to European colonists, who used it to treat scarlet fever, syphilis, malaria, blood poisoning, and diphtheria during the 1700 and 1800s.

In modern herbal medicine, Echinacea is used to reduce symptoms and duration of colds, sore throats, flu, upper respiratory tract disorders, infections, skin problems and heal wounds. It is used to stimulate the immune system and studies show it increases white blood cell counts.

The best time to use *Echinacea* is when you feel the symptoms of a cold coming on. There are cautions with long-term use, however, and some people may have an allergic reaction.

Increased demand for *Echinacea* and subsequent over-harvesting in the wild, along with habitat destruction, has placed this plant at risk. The 1999 Montana Legislature set a three-year moratorium on the harvest of wild medicinal plants on state lands and assigned a task force to determine sustainable collecting protocols for wild medicinal plants. This moratorium,

along with findings from German researchers, likely saved this plant from extinction.

Research found that the leaves and flowers have the same medicinal properties as the roots. It was also determined that commercially cultivating and harvesting the whole plant every four or five years is sustainable.

Narrow-leaved purple coneflower is an ideal plant for xeriscape and well-drained garden beds. It is hardy, disease and deer resistant. The large, showy flowers bloom for a long period of time late into the season and are butterfly and pollinator magnets.

Sources available upon request

**USDA Hardiness Zone:** 3-8

Height: 1 - 2 feet Width: 1 - 2 feet **Space:** 18" – 2 feet Light: full sun

Water: moderately low to low, may require extra irrigation during extended hot, dry spells. Some additional water is needed to establish seedlings; annual precipitation of 10 -25" in its natural habitat.

**Soil:** well-drained, light textured, moderately rich gravely or sandy soil, or gravelly, clay-type

**pH:** neutral to alkaline **Blooms:** late June – August Attracts: butterflies, bees, birds

**Deer Resistant:** yes

**Propagation:** 

Seed: 8 to 12 weeks of cold, moist stratification. Sow seed in January or February to ensure well-rooted transplants by May or June. Cover seeds lightly, if at all, during germination. Germinate at 65°F. to 79°F. Plant seeds in deep plug trays (6 - 8 "); this allows the taproot to develop straight down prior to transplanting out. If not planted in deep pots, do not let seedlings develop beyond the first true leaf stage; their deep taproot establishes early and is difficult to transplant.

Division: Harvest roots when plants are dormant when leaves begin to turn brown. Wash roots and remove most for use. Carefully divide the crown by hand to make one to five small plants. Replant the divisions as soon as possible. Do not allow to dry out.



The great Grandmother Ponderosa pine

## Fen at Mary's Frog Pond

by Paul Buck, Clark Fork Chapter Photos by Kristi DuBois

Mary's Frog Pond has a long history of research and observation and has been designated as a Forest Service National Botanical Area Wetlands. Retired Forest Service botanist Steve Shelley led an early July trip to this magical place in the Lolo Creek drainage. Even though the 2017 Lolo

Peak Fire burned very hot around the pond it did not seem to be greatly impacted. The floating peat moss mats and wet shorelines provided a base for many flowering plants including the most beautiful round leaf

sundew (Drosera roundifolia), cotton grass (Eriophorum angustifolium) and marsh cinquefoil (Potentilla palustris). The yellow flowered water lily (*Nuphar variegata*) had a striking presence on the pond surface.

A 1995 paper from the U of M covers some of the research at the pond and a good history of the area. It can be found at: this link. Mary's Frog Pond is a must visit if you want to spend an afternoon surrounded by a plethora of flora and fauna and yes - there are frogs (probably Columbia spotted frog, Rana lutieventris).





Potentilla palustris, photo by Kristi DuBois



Continued on page 10



### **Mosses of Rock Creek**

by Paul Buck, Clark Fork Chapter

After a relatively dry spring, a late May snowstorm left some much appreciated moisture and helped us observe the non-vascular plants of the Grizzly Creek confluence with Rock Creek.

> Joe Elliott, Rachel Feigley, Peter Feigley, Peter Lesica and Julie Duggan



Joe Elliott led five members on a walk with an emphasis on learning common forest mosses and being introduced to a diversity of mosses typical of western Montana.

Stairstep moss -Hylocomiun splendens

Roughly eight genera

were identified from the forest floor and soil to ones growing on rocks and trees and in water. The incredible ability of mosses to survive great changes in moisture and temperature is amazing. This is a great place to take a lunch break on an I-90 trip.

Below: Field Trip to Hoodoo Pass, Photo by Kristi DuBois

### Waterworks Trail and Milltown State Park

by Clare Beelman, Clark Fork Chapter

Both trips saw fewer blooming species than in years past. Because the temperatures were around historical averages, I guessed that the reason for not seeing as many different blooming species was because the late winter and early spring were significantly drier than historical averages. Because we do these two walks at about the same time every year, it is very easy to compare overall numbers and the condition of each blooming species. In Milltown, I am familiar with the location of specific plants.

#### Waterworks Trail

Far fewer shooting stars (*Dodecatheon* sp.) were seen to be blooming and those plants that did bloom were much shorter than usual. I'd say the average stem length this year was ~3". Most years, the average stem length seems to be more like 6". We also saw fewer larkspur (Delphinium bicolor) and yellow bells (Fritillaria pudica).

Only the various biscuitroots (Lomatium macrocarpum, L. triternatum, L. cous) seemed to be having a normal year.



The weather for the hike was perfect and we saw our usual precocious arrowleaf balsamroot plants blooming in Cherry Gulch. Waterworks Trail is known for the abundance of Phlox missoulensis, which in late April was just beginning to bloom. We had seven people on the walk.

#### Milltown State Park

It was another great year for blooming pasqueflowers (Anemone patens). Cammasia quamash was nearly nonexistent - and I mean even the vegetative plants. I'm guessing many plants stayed dormant due to the extremely low precipitation in the Milltown area. Sugarbowls (Clematis hirsutissima) were much later in growth, with most plants looking like they had emerged only a few weeks before our walk. We typically see several blooming plants.

Shooting stars (*Dodecatheon* sp.) seemed to fair much better than on Waterworks. We even saw a pure, white-flowered plant.

We had about 12 people on the walk Note: These areas are very different but excellent for mid-spring flower walks.

## Hoodoo Pass -Montana/ Idaho divide

by Paul Buck, Clark Fork Chapter

Our annual early August field trip turned out to be a bit of respite and rejuvenation from the heat and smoke. Peter Lesica led a walk down the Montana Idaho Divide Trail which was very dry, and many plants were past blooming or had even gone dormant. A lush meadow at the headwaters of Trout Creek (about 6400' elevation) did provide a chance to see many plants in bloom and key out a few.

We identified 18 plant families with 37 different genera of which 20 were flowering. The divide trail is always a beautiful walk and the flora never fails to delight.



Peter Lesica keying out a plant with Annie Garde and Marirose Kuhlman, photo ©Kristi DuBois



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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 a subscription to *Kelseya*, 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, or mailed to: Scott and Jennifer Guse, *Kelseya* Editors, 725 Twin Lakes Road, Whitefish, MT 59937.

#### Winter issue deadline is December 10

Please send web items to our webmaster concurrent with these dates, at: **Bob Person at: thepersons@mcn.net** 

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