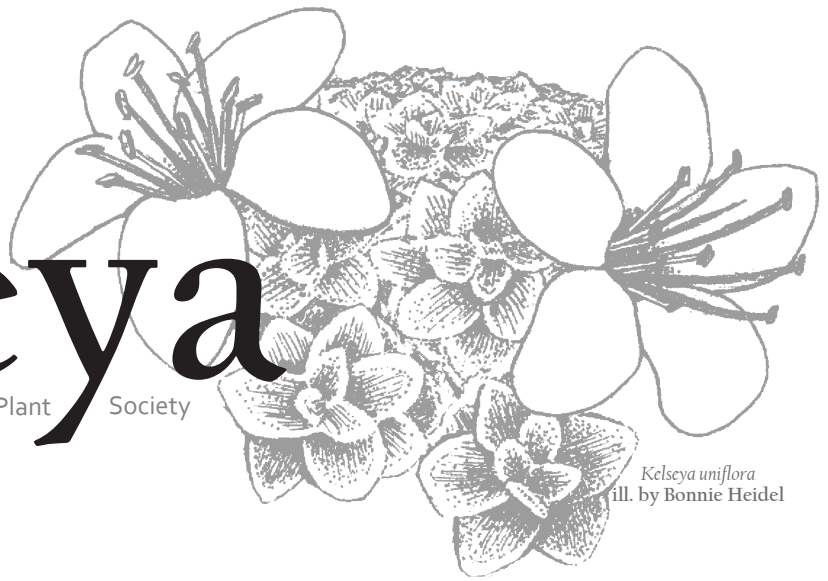


Kelseya

Newsletter of the Montana Native Plant Society



Kelseya uniflora
ill. by Bonnie Heidel

Montana's Threatened Plants Need Your Help

By Peter Lesica

We are fortunate to live in a place like Montana with a relatively pristine environment. Nonetheless, threats to rare plants do exist, even in our state. The Montana Native Plant Society has been working with the Montana Natural Heritage Program and state and federal land management agencies for the past several years to develop a centralized data repository and classification system for threats to rare plants. This effort grew out of discussions during the past two Montana plant conservation conferences, held in 2006 and 2008.

The purpose of the threats assessment is to help protect populations of rare plants most at risk from preventable human disturbance. Determining a species' rarity depends on knowing where plants occur and how many there are. This information is obtained through on-the-ground surveys. Some data on threats also can be obtained in this way; however, the best sources of threats information are the people who live and/or work in the area. For example, a Dillon range conservationist reported that the area around Bannack, supporting populations of several rare plants, is being considered for renewed mining activity. These threats are real; there are many examples of rare plant populations being lost to human activities in the past 100 years.

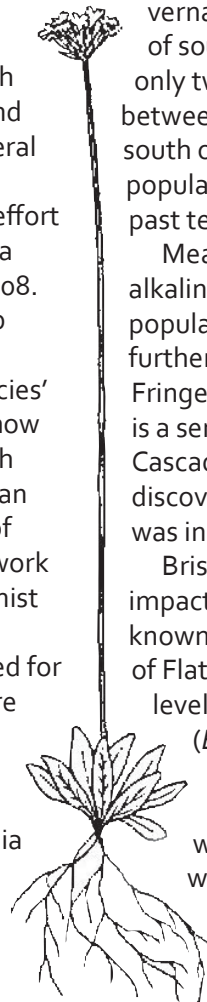
Wetland and riparian species seem to be particularly threatened by human activities. Columbia crazyweed (*Oxytropis campestris columbiana*) occurs on shorelines in only two regions: along the upper Columbia River in eastern Washington, where most populations have been inundated by dam construction, and along the shores of Flathead Lake. At least two Flathead Lake populations have been lost to residential development. Columbia wild onion

(*Allium columbianum*) is globally rare, being found in vernal moist soil mainly on the Columbia Plateau of southeast Washington and adjacent Idaho. One of only two known disjunct populations in Montana occurs between giant ripple marks left by Glacial Lake Missoula south of Flathead Lake. A significant portion of this population was destroyed by a gravel pit inundated the past ten years.

Mealy primrose (*Primula incana*) prefers moist, alkaline meadows from Alaska to Colorado. Montana populations are usually small, and one was reduced even further by a gravel pit dug for highway construction. Fringed water plantain (*Damasonium californicum*) is a semi-aquatic plant occurring mainly west of the Cascade Range. Montana's only known population was discovered along the Kootenai River the year before it was inundated under Lake Koocanusa.

Bristly sedge (*Carex comosa*) is another species impacted by water impoundment. Montana's only known population is in a wet meadow at the north end of Flathead Lake, that is being eroded by high water levels at the south end of the lake. Giant helleborine (*Epipactis gigantea*), one of Montana's 30 native orchids, is associated with seeps and springs in the southwest U.S., but is confined to thermal waters in Montana and British Columbia. One warm spring where it occurs west of Bozeman is being developed by its owners, and the small population will almost certainly be negatively impacted.

continued, page 5



Primula incana
www.plants.usda.gov

don't miss
**MNPS Annual Meeting
Information Inside!**

News & Notes



Botany Among the Beargrass

by Rachel Potter

Join us July 17-19 in Hungry Horse, MT for our annual meeting and to explore the "Crown of the Continent," where plants from the Pacific Northwest, Great Plains and boreal forests merge along the backbone of America. Field trips will take us to spectacular settings in and around Glacier National Park, many of which support rare and endemic species.

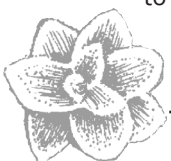
We'll explore alpine meadows, wet fens and deep cedar-hemlock forests. At night we will return to Glacier Bible Camp, nestled under the northern end of the Swan Mountains, just a short walk from the Flathead River. The log lodge provides ample space to share meals prepared by Flathead Chapter members. You can stay in private or shared rooms, pitch your tent or hook up an RV.

Friday's campfire will feature MNPS poetry and song. Saturday night we'll share photos from the day's field trips after dinner and the membership meeting. Go to www.mtnativeplants.org for details and vacation planning tips.

The 2010 MNPS Annual Meeting will be hosted by the Calypso chapter!

Chapter Dissolved

The Artemesia Chapter has been dissolved as of the winter MNPS board meeting on February 28, 2009. Chapter members may now consider themselves At-Large members and contact the closest chapter to them for information, or go to www.mtnativeplants.org.



High and Dry: Gardening with Cold-Hardy Dryland Plants

(Robert Nold, Timber Press, 2008)

By Kelly Chadwick, Sheila Morrison and Mike Young

As the title suggests, this book evolved from the author's 45 years of experience growing plants at his mile-high home along the Front Range of Colorado. Here plants must cope with expected annual precipitation of 10 inches or less, intense sun, infrequent snow cover, cold temperatures, and abundant wind. The focus is on native plants of western North America. More than three quarters of the 420 pages describe the native flora that he has grown or observed in nearby gardens.

Nold's style is brazen and unapologetic but his ideas are thought-provoking and delivered with humor. The first chapter is filled with gardening strategies, tips and his philosophy about gardening. In this, he rejects traditional gardening practices and challenges convention for growing western natives. Nold crusades for a more regional type of gardening with "a wholesale acceptance of the climates of the West." That said, he may be guilty of a bit of hypocrisy because he doesn't entrust survival of all of his plants to the whims of nature. He describes how to grow many plants in containers, and admits to sometimes-daily watering. He even goes so far as to spray marginally hardy forms of cacti with antidesiccants to help them survive Front Range winters. But gardening is about pleasure, as he notes, and his love for plants is evident throughout this book. Approximately every other page features an excellent photograph, and as well as intricate paintings of native plants and insects by the author's wife.

Those hoping to replicate his experiences should be cautioned that Denver's climate is not Montana's, and clay soils, over which he enthuses, are not all created equal. Plant performance here may require some adjustments. Nold also expresses opinions about some species that Montana growers might find amusing, including about *Heterotheca villosa* ("can safely be dismissed as a plant not to be brought into the garden") and *Prunus virginiana* ("I am unable to recommend this horrific weed to anyone but the masochistic gardener").

We recommend this book as a thorough and engaging work, covering a plethora of western native plants to grow throughout the western U.S.

Citizen Scientists Needed

by Kelly Chadwick

Project Budburst, a nationwide initiative by the University Corporation for Atmospheric Research, the University of Montana and others, allows citizen scientists to enter observations of the timing of flowers and foliage into an online database to help create a picture of changing climate. The project operates year-round, so early and late-blooming species around the country can be monitored throughout their life cycles. UM researchers Carol Brewer and Paul Alaback are collaborators on the project; MNPS member Alaback is the project's lead science advisor.

Project Budburst needs Native Plant Society members and others to help monitor local conditions. This involves selecting one or more plants near your house, then noting the day leaves and flowers appear and when leaves change color in the fall. Observations on Mt. Sentinel would be particularly valuable. Last year more than 4,000 volunteers participated nationwide! You can register to collect data at www.budburst.org, or contact Paul Alaback at palaback@gmail.com; 728-4696.

MNPS Member Mapping Flora in Madagascar

By Debbie Mueller

Calypso Chapter member Linda Lyon recently returned from the 350-acre Lokaro Nature Preserve in Madagascar, where she coordinates the research efforts of a scientific team that is documenting the reserve's ecology. As the team's ethnobotanist, Lyon works with the Malagasy people living outside the reserve to determine how best to balance their need for forest products with conservation of the reserve's natural resources.

Madagascar's forests are a diverse mixture of hardwoods, shrubs and ferns, but the island landscape also includes grasslands and savannas. As in many places, the island's plant species are disappearing faster than they can be identified. Though the Lokaro Preserve is only a tiny part of the island, it plays an important role in protecting plants in their native habitats so they don't become extinct. Fortunately, the new owner of the private preserve is a conservationist who supports the goals of the research team: protect the natural environment, provide a location for environmental education studies, and help build surrounding communities in sustainable ways.

An intensive mapping of the reserve's flora and fauna is the first step. Lyon has recorded hundreds of plant species with the help of two student research assistants. The three researchers also spent time with local residents to learn how plants are used for medicinal purposes, and worked to teach subsistence farmers and villagers the importance of using the forest in sustainable ways. Lyon says that this is a difficult message to get across to inhabitants who are just trying to make a living, but it's important to get everyone on board with the conservation mindset to create a better future.

Native Plant Landscaping Resource Now Online

A guide to "Missoula and West-Central Montana Landscaping with Native Plants" is now available on the MNPS website, thanks to the efforts of Clark Fork Chapter members. The guide includes lists of recommended species, brochures, books and field guides, websites, Missoula Municipal Codes regarding vegetation and much more. Check it out at www.mtnativeplants.org, and click on the link to "Native Plant Landscaping."

Welcome New Members

The Montana Native Plant Society warmly welcomes the following people as members:

Calypso Chapter: Ben Grady, Eve Wills, Delena and Roger Norris-Tull, Nancy Allen

Clark Fork Chapter: Helen Atthowe, Fred Allendorf and Michel Coville, George and Nancy Hirschenberger, Kay Izlar, Carolyn Pardini and Lily Coble, Anne Garde

Flathead Chapter: Matt and Lynn Bradley, Tris Hoffman

Kelsey Chapter: Tonda Moon, Jeff and Vicki Tiberi

Valley of Flowers Chapter: Diana Blank

At-Large Members: Terry Quinn, Beverly and Dan Foote

Backyard Conservation Awarded 2009 Small Grant

By Drake Barton

Congratulations to this year's recipients of the MNPS small grant award: Tracy Dougher, associate professor at Montana State University, and Casey Delphia, an entomologist in Bozeman, Montana. Their project, titled "Backyard conservation: evaluation of Montana native perennials for water savings and pollinator attraction," will look at the way native plants respond to three different watering regimens to help identify how to save water and still help your plants thrive. The second component will record pollinator visits (specifically, bees) to the native flowering plants. Researchers will track the number of individual pollinators and the number of pollinator species, as well as which plants attract the most pollinator visits.

This year the Small Grant Committee received four excellent proposals. As is often the case, committee members found each proposal worthy of funding, and we only regret that we can't fund them all. The following is a list of the other proposals submitted in 2009:

Research:

*Ecology and evolution of the wild buckwheats *Eriogonums**

Education:

Curriculum-based "Indian Education for All," to establish a native plant garden

Noxious weeds:

Weed surveys and public outreach/training

Thanks to everyone who participated in this year's competition. We hope to hear from you again!



MNPS Elections: Let Your Voice Be Heard!

The nominating committee is happy to announce that three incumbent officers have agreed to run for another term as President, Western Representative-at-Large and Treasurer.

Dave Hanna: If re-elected President, Dave promises to continue his tight “reign” on MNPS. Dave has worked in land management and conservation for many years, currently serving as the Rocky Mountain Front science and stewardship director for The Nature Conservancy. He lives in Choteau, where he and his wife, Becca, feed cats. Dave pledges to keep MNPS true to its mission and make sure we won’t need a bailout.

Judy Hutchins: If re-elected Western Representative-at-Large, Judy would continue serving non-chapter members in western Montana. A resident of Heron since 1973, Judy has worked for the Forest Service, in real estate, and has her own hay and timber farm. She has served as a conservation district supervisor, a founding board member of the Clark Fork Coalition, and as a vice-chair of the Montana Forest Stewardship program. She also is active in the Cabinet Resource Group and its Bull River Outdoor Education program, watershed councils in the lower Clark Fork, the Clark Fork/Pend Oreille Conservancy Board, the Tri-State Water Quality Council and the Montana Land Reliance.

Marlene Renwick: If elected Treasurer, Marlene would continue the job she began last year as board-appointee after long-standing (and outstanding) Treasurer Madeline Mazurski resigned. Marlene lives in Livingston and is a self-employed botanist. She enjoys educating people about the values of native plants and our region’s native flora. Marlene earned her degree in Bellingham, WA, and worked for a number of years in the North Cascades before moving to Montana in 1997. When not outside hiking for work, you can usually find her hiking for fun with her husband and dog. She enjoys birding, volunteering, working part-time at the co-op in Bozeman, and exploring Yellowstone National Park on skis. Come spring, she migrates to the southwest in search of flowers as the snow melts in Montana. For an example of her Treasurer skills, see the 2008 and 2009 budgets in this issue.

A \$100 prize is being offered again to the MNPS chapter that turns out the largest number of votes. Members may submit their ballots to the MNPS Electoral College via email or snail mail. Please log on to the MNPS website at www.mtnativeplants.org and click on the link to 2009 Elections, where there will be a link to the ballot. Save the ballot on your computer, fill it out and email it to the Electoral College at m2andp2@mt.net.

If you prefer the postal service, fill out and mail the ballot insert today and help your local chapter win \$100. Election results will be announced and the prize awarded at the Annual Meeting, July 17-19, in Hungry Horse. Thank you for your election support over the years!

Annual Meeting Updates

Silent Auction Items Needed for Annual Meeting

Member donations are some of the most sought-after items in each year’s silent auction, highlighting our unique, generous and talented community of plant people. Please think about what you can contribute—arts or crafts, photos, plants, seeds, baked or preserved goodies, services or that loved item you are ready to pass on.

While last minute donations at the meeting are always welcome, it helps if you let us know in advance what you are contributing. Please contact Rachel Potter at jrepotter@centurytel.net or (406) 892-2446 with the following information: item description, donor name, address, email and phone number, contact person and their info if other than donor, minimum bid (optional), item value (optional), and how you expect to get the item to the meeting.



Growers Invited to Sell Plants

If you would like to sell plants at the annual meeting and donate at least 10% of your proceeds to the MNPS, please contact Terry Divoky, tddivoky@centurytel.net, 406-387-5527. We suggest donating rare or unusual plants to the silent auction.

T-Shirt Fashion Show

By popular demand, we are having another MNPS annual meeting T-shirt fashion show during the camp fire Friday night. Please either bring all your old T-shirts, or go to www.mtnativeplants.org in early summer for a list of the T-shirts we need.

Threatened plants, cont'd

Wetland and riparian plants are not the only ones that have been impacted by human activities. Upland low elevation habitats may also harbor threatened species. Pryor Mountains bladder pod (*Lesquerella lesicii*) is known only from a handful of populations at mid-elevations in the Pryor Mountains. The largest of these occurs on a steep slope that is heavily trampled by introduced wild horses. Cusicks horsemint (*Agastache urticifolia*) only occurs on a few low-elevation limestone talus slopes in extreme southwest Montana through Idaho and Nevada. The largest population occurs adjacent to a county road and has been severely impacted by mining for road gravel. Although most threats to rare plants occur in the valleys, high-elevation species are not always immune. Claspig groundsel (*Senecio amplexans*) occurs on alpine rock slides from Montana to California and Colorado. The famous Beartooth Highway was constructed through Montana's only known population, and certainly had a negative impact.

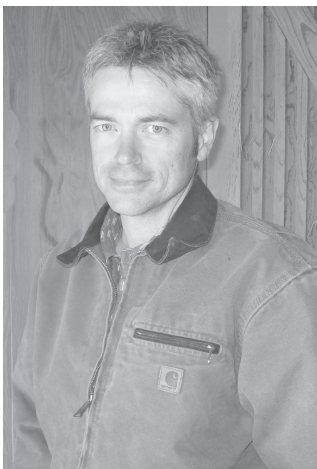
Even Glacier National Park has its share of rare plants that have been negatively impacted. Autumn willow (*Salix serissima*) is common across boreal North America, but is found in just a handful of north-central Montana fens. One of these was found along Swiftcurrent Creek in what is now Glacier National Park, but now lies under the water of a reservoir. Velvetleaf blueberry (*Vaccinium myrtilloides*) is another common boreal species that is rare in the western U.S., known only from three populations along the western edge of Glacier Park. The largest of these occurs throughout the lodgepole forest between Glacier's west entrance and Lake McDonald. This population has been reduced by the development of roads and visitor services that continue today. Hermann's sedge (*Carex lenticularis dolia*) occurs sparingly in the Rocky Mountains from Alaska south to Montana. The largest population in the contiguous U.S. at Logan Pass in Glacier Park has been negatively impacted by authorized and unauthorized trails and development of a water system for the visitor's center. Straightbeak buttercup (*Ranunculus orthorhynchus*) is peripherally rare in Montana, known from only four populations. The one in Glacier Park has been partly destroyed by placement of the railroad and negatively impacted by a hiking trail along one side.

Not all—but some—of these losses could have been prevented. It should be obvious from this list that some habitats and types of species are more prone to extirpation than others. Having a compilation of expert opinion on threats will allow land managers, conservationists, developers and the general public to better identify the most at-risk plant species in their area. Our threats assessment will also make it more apparent which activities are most likely to pose a threat to rare plants. MNPS needs everyone's help to succeed in this project. You can go to the MNPS website, www.mtnativeplants.org, to see the threats database and download a form to submit information, or come to the plant conservation conference to be held next winter in Missoula and tell us what you know.



Giant hellebore (Epipactis gigantea)

President's Platform



It's that time of year in Montana when it's winter, then spring, then winter, then spring; back and forth until summer arrives. As I write this, we're in the midst of a few days of winter, with some below zero temperatures following last week's 50s and 60s. But the unmistakable signs of the winter to spring transition are here—longer days, tundra swans in the sky, greening grass, and soon, spring wildflowers. I love this time of renewal, that grows stronger each day. I'm looking forward to all the new things to discover and learn this season.

As usual, there's lots happening with MNPS this time of year. The 2009 Field Trip Guide will be in your mailbox soon, and I'm also looking forward to this year's annual meeting in July. It will be hosted by the Flathead Chapter up in Hungry Horse. Check out the notice and registration form in this newsletter, and join us for a great weekend. Also, just when you thought all the elections were over, it's time for the annual MNPS elections. Don't forget to send in your ballot, which forms the basis for the insightful analysis and commentary Patrick Plantenberg will deliver at the annual meeting. Finally, thanks to everyone who responded to the newsletter survey on your renewal cards—as a result, we're

experimenting with making the newsletter available electronically on our website. Check it out!

~ Dave Hanna



EVENTS CALENDAR

Please leave pets at home during MNPS field trips.

Calypso Chapter

Native Wildflowers/Landscapes Photo Contest: 4/1—9/1

Twelve winners will have their photos featured in a 2010 calendar fundraiser for the Calypso Chapter. Save photos full-size and as jpegs. To upload your photo(s) or see those others have entered, go to www.public.fotki.com/nativelandscape/wildflower~/. Select "login" in the upper right corner. Username is "nativelandscape"; password is "southwest." Then click on "photo album" in the left column, and select "add photo" on the options page. Follow the directions using the "one photo at a time" option. Be sure to include your name, photo location, subject, type of camera used and your email address. Photographers give permission for the Calypso Chapter to publish the photos. Info: Catherine Cain, (406) 498-6198.

Landscaping with Native Plants and Heirloom Vegetable

Gardening: Saturday, 4/4, 9:00 am—1:30 pm. This is the second Annual Calypso Spring Workshop. Lunch provided. Divide Grange Hall. RSVP by 4/1 to Catherine Cain, (406) 498-6198, email nativelandscape@montana.com.

Dillon Garden Tour: Saturday, 6/20, 9:00 am. Tour gardens, both completed and in-progress. Focus is on native landscaping using existing gardens as a planning tool and giving participants a chance to share ideas. Meet at the parking lot across from the fishing pond and carpool to homes. Info: Linda Lyon, 683-2878 (home) or 683-7075 (work).

Recount of Lemhi Penstemon and Sapphire Rockcress:

Saturday, 6/27, 9:00 am. Lee Harry and Bob Wooley will lead a wildflower recount of these two species; blooms should be superb at this time! Pack a lunch and we will carpool. Meet at the Salmon Fly Parking area in Melrose (across the bridge). Info: Bob Wooley, (406) 683-6365.

Butte Garden Tour: Sunday, 7/12, 1:00 pm. Tour gardens, both completed and in-progress. Focus is on native landscaping using existing gardens as a planning tool and giving participants a chance to share ideas. Meet at the Lexington Gardens in Butte, at Granite and Wyoming. Info: Kriss Douglass, (406) 782-9060.

Hike with Wayne Phillips:

Monday 7/13—Tuesday, 7/14, time TBA. View the blue Colorado columbine and other summer wildflowers in the Snowcrest Range. Meet on Monday at the Sunset Peak Campground off the Blacktail Rd. (check map beforehand to know where you are going!). Enjoy campfire sing-a-longs that evening. Leave for all-day hike early Tuesday; bring a lunch. Info: Wayne, (406) 453-0648, or email mtwayne@gmail.com.

Clark Fork Chapter

Please check www.mtnativeplants.org for updates, or call Kelly at 258-5439. Events could be canceled due to weather.



Revisiting *Dicentra uniflora*: Saturday, 4/18, 10:00 am.

There is a very short time to catch this delightful bleeding heart cousin in bloom. Join Forest Service ecologist Mike Young and UM plant specialist Kelly Chadwick in search of the intriguing Steer's. This will be a moderately strenuous, 8-mile roundtrip hike on a good trail. Meet at the Rattlesnake Recreational Trailhead. Bring water, lunch, sturdy boots and rain gear. Possible cancellation due to snow. Info: Kelly, 258-5439.

Wildflower Hike on Mt. Sentinel 1: Wednesday, 5/1, 6:30 pm.

Join forest ecologist Paul Alaback to discover which flowers and leaves appear first on Mt. Sentinel this year. Hike up the Evans Street Trail to the fire road to find as many as 130 different species of plants. If there is interest, we could do the loop that goes up to the forest patch within 500' of the summit. We'll document the progress of spring as part of a long-term study, which is incorporated into Project Budburst. We should see Indian paintbrush and prairie larkspur in bloom, along with many other interesting species. Meet on the south side of the UM campus, at the corner of Beckwith Ave. and Madeline Ave., east of the Forest Service research lab. Info: Paul, 728-4696.

Finding Early Spring on the Lochsa: Friday, 5/8—Sunday, 5/10

Arrive at your convenience Friday afternoon or evening. If interested, come in time for an early dinner to brainstorm and rehearse songs/poems for the MNPS Annual Meeting. Leave the campsite by 9:00 am Saturday to carpool about 15 miles down the Lochsa River to look for Pacific dogwood (*Cornus nuttallii*) and other disjunct plant species associated with the Clearwater refugia. The day will be spent taking short drives, stopping and taking short walks. Maps of previously surveyed Pacific dogwood populations and lists from Peter Stickney will help us in our search. Sunday possibilities include a hike up Fish Creek, and stops at DeVoto Cedar Grove and Jerry Johnson Hot Springs. For Saturday evening, bring your ideas for "Plant Folk Songs and Poems" to be presented at the annual meeting. We will camp at Wilderness Gateway FS campground (88 campsites, water and trailer spaces) about 40 miles downriver from Powell, about a mile upriver from the Lochsa Historical Ranger Station. Info: Wayne Phillips, (406) 453-0648 or mtwayne@gmail.com, or Kelly Chadwick, 258-5439.

Annual MNPS Plant Sale at the Missoula Farmers' Market:

Saturday, 5/16, 8:30 am—noon. Various Montana native plant species, including our state flower, the bitterroot, will be for sale. Come early for the best selection.

Plant Conservation Day: Monday, 5/18.

Visit www.plantconservationday.org for details.

Dyers Woad Pull 1: Tuesday, 5/19, 6:30 pm. Help control weeds and raise money for the Clark Fork Chapter. The Chapter earns \$10.00 an hour per person up to a total of \$400 by pulling Dyers Woad, a distinctive noxious weed in the mustard family. Eighteen years ago the Dyers Woad infestation was 7,000 plants; now we rarely find more than 400. The pull takes about two hours. Come enjoy the view and beautiful grasslands. Wear sturdy shoes and bring rain gear. Meet at the Mt. Sentinel M trailhead. Info: Marilyn, 243-6642.

Wildflower Hike on Mt. Sentinel 2:

Wednesday, 5/20, 6:30 pm. Paul Alaback leads another stroll up the Evans Street Trail and shares insights from his 12-year study of the plants and their phenology on this trail. We should see penstemon, arrow-leaved balsamroot, lupine and more. Meet on the south side of the UM campus, at the corner of Beckwith Ave. and Madeline Ave., east of the Forest Service research lab. Info: Paul, 728-4696.

Bandy Ranch Birding/Plant Field Trip:

Saturday, 5/30, 8:00 am. Larry Weeks of Audubon and John Pierce, botanist and MNPS host, will acquaint us with us with the birds and plants of the Bandy Ranch in the Ovando Valley. We'll do some birding along Cottonwood Creek and at the Bandy Ranch. We will then go to Upsata Lake for a 2-mile, 2-hour hike around a marshy area and some prairie potholes. After lunch at the lake, we'll drive part way back to the ranch and hike into the ranch reservoir. We should get back to Missoula by 4:00 pm. Meet in the middle of the Adams Center parking lot on the UM Campus at 8:00 am and carpool to the Ovando Valley. Info: Larry Weeks, 549-5632.

Dyers Woad Pull 2: *Tuesday, 6/2, 6:30 pm.* Help control Dyers Woad and raise money for the Clark Fork Chapter. Meet at the Mt. Sentinel M Trailhead. See 5/19 Dyers Woad Pull for details. Info: Marilyn, 243-6642.

John Toole Park Weed Pull: *Tuesday, 6/9, 6:30 pm.* Join John Pierce and other volunteers in restoring old Missoula Valley's native grasslands. Bring a friend and a tool for weeding. Meet just north of the Waterwise Garden and east of the Missoulian, near the Kim Williams Trail in John Toole Park. Info: John at 542-2640.

Dyers Woad Pull 3: *Tuesday, 6/16, 6:30 pm.* Meet at the Mt. Sentinel M Trailhead. See 5/19 Dyers Woad Pull for details. Info: Marilyn, 243-6642.

Mt. Sentinel Fire Ecology/Wildflower Hike 3: *Wednesday, 6/17, 6:30 pm.* Forest ecologist Paul Alaback, and Peter Stickney, fire ecologist and botanist, will shed light on what is happening with plants in the area that burned last summer along the Evans Street Trail on this final phenology trip of the season. They will talk about which plants survive and their post-fire dynamics. We should see mock-orange, Woods rose and many other early summer flowers. Meet on the south side of the UM campus, at the corner of Beckwith Ave. and Madeline Ave., just east of the Forest Service research lab. Info: Paul, 728-4696.

The Biennial Native Plant Garden Tour and Reception:

Sunday, 6/28, time TBA. Visit some of the Bitterroot's finest native plant gardens and the gardeners who created them. Missoulians meet in the SW corner of the old WAL-MART, off Highway 93 South. Bitterrooters, meet at Sam's Spade, 111 South 4th Street, Hamilton. Samantha will open her shop for us and offer organic espresso beverages and baked goods. The reception will be held at an organic farm and garden

south of Stevensville, which will serve local food. Bring water, snacks & lunch for the trip. Info: www.mtnativeplants.org, or Kelly, 258-5439.

Stark Mountain Botanical and Birding Excursion:

Sunday, 7/5, 9:30 am. Virginia Vincent will share her 38 years of observation of the plants and birds at her 7352' summer home, Stark Mountain Lookout. This is a 2-2 ½ hour drive from Missoula. Some portions of the road have sharp rocks. Standard-transmission, low-g geared vehicles with strong tires and 7+ clearance preferred. Bring lunch, water, rain/wind gear and hiking boots. Meet at the west end of the Providence Center parking lot to carpool. Info: Kelly, 258-5439.

Eastern Montana Chapter

For event information, contact Wayne Phillips at 453-0648.

Flathead chapter

Our meetings have moved to the 3rd Wednesday at Discovery Square, 540 Nucleus Ave. in Columbia Falls (the old First Citizens' Bank Building, use NW entrance). Unless otherwise noted, there is a business meeting at 5:30 followed by the 7 pm program.

Call for Volunteers: The Flathead MNPS Chapter needs volunteers to staff an interactive, native tree ID exhibit during the following three events. If you are interested in helping, please contact Rachel at 892-2446 or email repotter@centurytel.net.

Earth Day Celebration at FVCC: *Wed., 4/22, 3:00—6:00 pm.*

Columbia Falls Arbor Day Ceremony with Governor Schweitzer: *Friday, 4/24, afternoon.*

Columbia Falls Arbor Day Celebration cont'd: *Saturday, 5/2, all day.*
We can use help even if it is for an hour or two.

Plant Family Identification Workshop Redux:

Wednesday, 4/15, 7:00 pm. Learning key characteristics of a few plant families is a great way to start learning about wildflowers or enhance your knowledge. We'll be reviewing families covered the past two years (lily, figwort, orchid, aster, rose and buttercup) with lots of pretty wildflower slides. Preceded by chapter business meeting at 5:30 pm. Discovery Square, 504 Nucleus Ave., Columbia Falls.

Native Plants of the Wild Mile: *Tuesdays, May and June, 10:00 am.* Join Anne Morley for two hours of plant identification along Bigfork's Wild Mile Nature Trail. This trail is level, easy walking and appropriate for all ages. Bring a hand lens if possible. Meet at Showthyme! in downtown Bigfork. Info: Anne, 886-2242.

Flathead Forestry Expo in Columbia Falls: *Monday, 5/4—Friday, 5/8, times TBA.* Help give a 20-minute plant ID course for valley 5th graders. The curriculum has been praised for being easy and fun to present. We need people to help one or more days through the week. It's usually just a few hours in the middle of the day, and we will pair you up with a veteran presenter. Info: Betty, 892-0127.



Garden Planting Night at Discovery Square: *Wednesday, 5/20, 5:30 pm.* Help plant the montane forest garden at Discovery Square. Info: Terry Divoky, 387-5527, or tdivoky@centurytel.net.

Columbia Mountain Evening Stroll: *Wednesday, 5/27, 5:30 pm.* Join Glacier National Park Ecologist Tara Carolin and botanist Rachel Potter on a 2-hour walk up the Columbia Mountain trail. Enjoy spring and early summer blooms along the forested trail that also offers lovely rock outcrops in the sunshine. The trail can be a little steep in places, but the pace will be slow and we will be going only a few miles at most. Meet at the Park & Ride lot at the junction of Highways 2 and 206 in Columbia Heights. Bring a sack supper if you like. Info: Rachel, 892-2446.

Native Plant Garden Tour: *Wednesday, 6/4, 7:00 pm.* Native plant gardener Bill McClaren will lead a tour of the FVCC and Central School Museum Native Plant Gardens. Meet at FVCC, behind Blake Hall. If it is raining, meet inside. No RSVP necessary. The tour is wheelchair accessible. Info: Bill, 257-2540, or mccl@bresnan.net.

Volunteer Opportunity at Glacier National Park Nursery: *Tuesdays, 6/16-8/25.* Help with seeding, transplanting, weeding and cleaning, or work on a particular research or experimental project. Bring a sack lunch, your favorite work gloves and clothes. Drop in and work an hour, or stay the entire day. Meet at the Native Plant Nursery at Glacier National Park. Info: Joyce Lapp, 888-7817.

Kelsey Chapter

Wildflower Preview on Mount Helena: *Monday, 5/18, 5:30 pm.* Come and see what's blooming on Mount Helena. If you are involved in the event on 5/19, this is a good chance to bone-up on your wildflower ID. Meet at the Mount Helena parking lot.

13th Annual Wildflower Hike: *Tuesday, 5/19.* To celebrate National Wildflower Week, we will have 12 groups in the morning and 12 groups in the afternoon, each group containing approximately 120 kids. We will need approximately 16 volunteers for both morning and afternoon. Info: Kathy Martin, 443-1712, or katbrim@peoplepc.com.

Hike to Lewis & Clark Pass: *Saturday, 5/30, 10:00 am.* Meet for a 4-hour stroll to the top of Lewis & Clark Pass and back. The total distance is 3 miles on an easy grade. The change in elevation provides for a great diversity of plant zones, from riparian at the trailhead to the whitebark/limber pine stands at the pass. Total group size of 20; call 495-3718 to reserve a spot. Meet at the trailhead west of Lincoln. Sponsored by the Montana Discovery Foundation.

Celebrating the Little Blackfoot River Corridor: *Saturday, 6/13, 10:00 am.* Guided tours of Charter Oak Mine will run from 10 am to 2 pm, and Mary Johnson will be guiding flower walks from her cabin near the junction of the Little Blackfoot River and Telegraph Creek Roads. Sponsored by the Montana Discovery Foundation. Info: 495-3718.

Weed Pull and Picnic: *Week of 6/24, date TBA.* Join the Kelsey Chapter and the Department of Agriculture for a fun, lightly competitive weed pull at the Ten Mile Creek Water Treatment Plant near Rimini, followed by a resplendent picnic lunch at Moose Creek Campground. The pull will be a week day during the week of 6/24, the final date to be confirmed later this spring. Info: Jim Greene, 495-9270.

The Identification and Art of Wildflowers: *Saturday, 6/27.* Montana FWP, MNPS, the Montana Discovery Foundation and The Sewing Palace are hosting a workshop about wildflowers in the Helena area. Participants will spend the morning learning basic flower identification techniques and plant families while taking a walk through the local countryside. In the afternoon, the group will learn to transfer images of flowers and leaves onto fabric to create one-of-a-kind flower art. All flowers and supplies provided. This workshop is an extension of the Becoming an Outdoors-Woman program. Info: visit the FWP website at www.fwp.mt.gov and click on "Education," or call 444-2615.

Maka Flora Chapter

For information about the Maka Flora Chapter or events, call Rebecca Kallevig at 488-5455.

Valley of Flowers Chapter

We meet on the second Tuesday of the month at 7 pm in room 108 of the Plant Bioscience Building at MSU. The building is the first one on the West side of South 11th Avenue after College Street. Free parking north of the building despite the construction fencing. For further information call Joanne Jennings, 586-9585.

Western Montana

One field trip is planned for 2009. Contact Judy Hutchins at 847-2717.

Kelsey Online

Results from a recent MNPS member survey indicate a fairly even split between members who wish to receive Kelsey in the mail and those who would prefer to read it online. For now, both options are available, starting with this Spring 2009 issue. Go to www.mtnativeplants.org to find the electronic version. We will continue to survey membership to see whether we wish to go entirely electronic in the future.



Pollinator Wars: How leafy spurge affects bees & native plants

By Jennifer Palladini, 2008 MNPS Small Grant Recipient



Those of us who enjoy wildflower-watching are well aware of the loss of diversity that accompanies invasion by plants such as spotted knapweed or leafy spurge.

Introduced plants often displace native plants by monopolizing resources such as water, light or soil nutrients, but they also may interact with native plants through their pollinators.

Just as they steal soil resources from native plants, introduced plants also can steal pollinators by luring them away with colorful floral displays and abundant rewards of nectar and pollen.

In some cases, introduced plants may positively affect the pollination of native plants. If the introduced plant provides an abundant source of food for bees, invaded areas may harbor more bees than areas without showy invaders. More bees might mean more pollinator visits for everyone. In the Sierra Nevada Mountains of California, for example, researchers found that regions with multiple species of *Clarkia* (*Onagraceae*) supported more *Clarkia*-visiting bees. *Clarkia* plants in these areas received more pollinator visits and their reproduction was less limited by pollen receipt than plants in areas with only one *Clarkia* species. This positive effect of one flowering species on the pollination of another is called facilitation.

In 2008, with financial assistance provided by the Montana Native Plant Society Small Grants Program, I set out to explore whether a common invader in western Montana, leafy spurge (*Euphorbia esula*), affects bee communities and, if so, whether changes in bee communities have positive or negative effects on the reproduction of native plants. Leafy spurge provides abundant nectar and pollen and is attractive to many of our native pollinators, particularly bees.

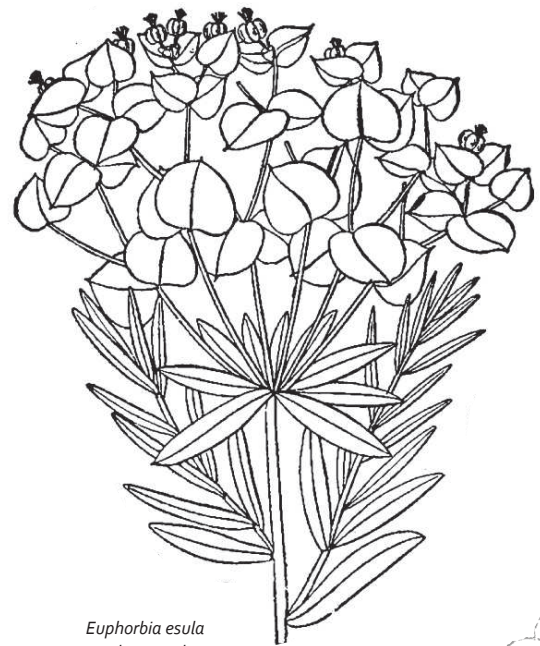
Montana has many species of native bee, the vast majority of which are solitary. Unlike social honeybees and bumblebees most people are familiar with, solitary bees don't live in colonies. Rather, individual females build nests and provide food for their offspring all on their own, with no help from other bees. I wanted to investigate how these bees responded to the presence of leafy spurge.

In my project, I caught many more solitary bees in invaded sites than in uninvaded sites nearby. In fact, this difference was audible. Standing in the midst of a leafy spurge patch, one could hear the buzzing of the bees all around while a couple of hundred steps away, beyond the invasion boundary, there was relative silence. Our native

bees were clearly taking advantage of the abundant nectar and pollen provided by dense patches of leafy spurge. How might this increase in bee activity affect the reproduction of our native plants?

To answer this question, I collected fruits and seeds from five native plant species in invaded and uninvaded areas. The species I studied were *Penstemon wilcoxii* (*Scrophulariaceae*), *Zigadenus venenosus* (*Liliaceae*), *Astragalus miser* (*Fabaceae*), *Campanula rotundifolia* (*Campanulaceae*) and *Calachortus apiculatus* (*Liliaceae*). My experiments revealed that seed production in invaded and uninvaded areas was not limited by pollen receipt. This means that plants in both areas were getting plenty of visits from pollinators, whether leafy spurge was in the area or not. On the flip side of the coin, the increase in bee numbers in invaded areas with abundant leafy spurge flowers suggests that at least some bee species might be limited by access to nectar and/or pollen.

So does the abundant nectar and pollen provided by leafy spurge affect the reproduction of these bees and, if so, do all species benefit? Leafy spurge likely has positive effects on some bee species, particularly generalists that are not choosy about which flowers they visit. However, because leafy spurge reduces native plant diversity, it could have negative effects on the approximately 60% of bees that specialize on a few closely related plant taxa. I plan to address these and related questions over the next few years.



Euphorbia esula
www.plants.usda.gov



Grower Profile: First Creek Seeds

By Tim Connolly and Beth Madden, *Maka Flora* Chapter

This month, we introduce you to a Montana Hi-Line business with a long tradition in native seed harvest, cultivation and sales. First Creek Seeds is a division of First Creek Ranch, Inc., a family-run business located about five miles east of Saco, which is a half hour east of Malta along Highway 2. First Creek Seeds specializes in the custom cleaning and consignment selling of native grass seed; they also provide seed for native forbs and tame grasses/forbs.

Darrell Menge, First Creek Ranch president, says the family has been involved in some aspect of seed production as far back as he can remember, but that this effort increased when he returned to the ranch in 1961. In the early 1970s, the ranch began working with three larger seed companies to dry and bag truckloads of seed for shipment. By the mid-1970s, they were collecting seed from their own native range. Year-to-year production varied with the weather, but peaked in 1979 when the seed of 22 different species was being collected. In 1987, First Creek Ranch began its own seed-cleaning operation and built a warehouse to store seed for shipment. This coincided with the beginning of the Conservation Reserve Program (CRP), and Darrell says government policy has had a great influence on the seed business. In the 1980s and 1990s CRP created a large demand for grass seed; today, a big portion of their business comes from sales for the re-seeding of burned areas following wild fires. Sales and staff have fluctuated through the years, due both to weather and government policy, from a high of seven employees in the late 1990s to three currently.

First Creek Seeds specializes in the seed of western wheatgrass, green needlegrass and slender wheatgrass. Depending on the year, they also deal in seed from about 26 native grasses, and 14 native forb and shrub species. If they don't have it, they are willing to track it down and order it for customers. Western wheatgrass is their biggest seller, but Sandberg bluegrass, prairie junegrass, needle and thread, purple prairie clover and white prairie clover also are popular. About half the native seed produced on First Creek Ranch is collected from native range, while the other half is harvested from production fields. They receive and clean native seed from neighbors and sell it on consignment. Some tame grasses and forbs also are grown in plots.

Phillips County, where First Creek Ranch is located, at one time was the largest grass-seed producing county in the state. In an average year, approximately 50% of North America's true native western wheatgrass still is harvested within a 60-mile radius of First Creek Ranch. In 1999, an especially good year, more than 3 million pounds of western wheatgrass seed was harvested from here!

First Creek Seeds has provided seed to customers in most of the states west of the Mississippi River, but the majority of their customers are located in northeast Montana. Customers range from ranchers (cattle producers) to government agencies (USFS, USFWS) to reclamation specialists, to individuals interested in native backyards.

First Creek Seeds is a member of the Montana Seed Trade Association (Darrell is a past president), the Montana Seed Growers Association and the Western Seed Association. Darrell says the biggest challenge to the seed business is unpredictable production due to Mother Nature. The business must keep up with current research and constantly look to improve customer satisfaction with better quality and varieties. You can contact them at First Creek Seeds, P.O. Box 48, 179 Beaverton Road, Saco, MT 59261. Call (888) 757-3334 or email dmenge@nemont.net.

Publications & Guides

Free from MNPS Publications:

- MNPS membership brochures
- Plant Collection Guidelines for Teachers brochures
- Echinacea Cultivation Information
- Plants Collected in Montana During the Lewis & Clark Expedition. Please send a SASE to 1270 Lower Sweet Grass Road, Big Timber, MT 59011 to request any of these publications.

Online at www.umt.edu/mnps:

Guidelines for Selecting Horticultural Plant Material for Montana (voluntary guidelines by MNPS and the Montana Nursery and Landscape Association)
Lewis & Clark Plants Collected Elsewhere That Occur in Montana, an inclusive list of Lewis & Clark plants found in the state.

Flathead, Kelsey and Valley of Flowers chapters also offer inexpensive booklets about gardening with each respective area's native plants. Watch for an updated list in the next *Kelsey*.



MNPS Chapters & the Areas They Serve

CALYPSO CHAPTER - Beaverhead, Madison, Deer Lodge, and Silver Bow Counties; southwestern Montana
 CLARK FORK CHAPTER - Lake, Mineral, Missoula, Powell, and Ravalli Counties
 FLATHEAD CHAPTER - Flathead and Lake Counties plus Glacier National Park
 KELSEY CHAPTER - Lewis & Clark, Jefferson, and Broadwater Counties
 MAKA FLORA CHAPTER - Richland, Roosevelt, McCone, Sheridan, and Daniels Counties
 VALLEY OF FLOWERS CHAPTER - Gallatin, Park, and Sweet Grass Counties plus Yellowstone National Park

All MNPS chapters welcome members from areas other than those indicated. We've listed counties just to give you some idea of what part of the state is served by each chapter. Watch for meeting announcements in your local newspaper. Ten paid members are required for a chapter to be eligible for acceptance in MNPS.

Your mailing label tells you the following:

CHAPTER AFFILIATION: CAL=Calypso; CF=Clark Fork; F=Flathead; K=Kelsey; MF= Maka Flora; VOF=Valley of Flowers

YEAR YOUR MEMBERSHIP EXPIRES: Memberships expire in February of the year listed on your mailing label.

Use this form to join MNPS only if you are a first-time member! To renew a membership, please wait for your yellow renewal card in the mail. **Moving? Please notify us promptly of address changes.**

Membership in Montana Native Plant Society is on a calendar-year basis, March 1 through the end of February of the following year. New-member applications processed before the end of October each year will expire the following February; those processed after November 1 will expire in February of the year after. Membership renewal notices are mailed to each member in January. Please renew your membership before the summer issue of *Kelseya* so your name is not dropped from our mailing list. Your continued support is crucial to the conservation of native plants in Montana. THANK YOU!

MONTANA NATIVE PLANT SOCIETY MEMBERSHIP

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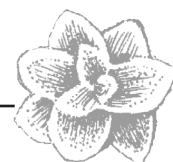
If you wish to be affiliated with a chapter (see above), list it here _____

You will receive membership acknowledgement by email, as well as a pdf of the most recent Kelseya. Future newsletter issues will arrive by mail.

Membership Level	Dues w/affiliation	Dues w/o affiliation
Individual	\$20	\$15
Family	\$25	\$20
Business/Organization	\$40	\$35
Living Lightly	\$15	\$15
Lifetime (one-time pymt)	\$300 per household	-----

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 Missoula, MT 59807-8783

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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 a subscription to *Kelsey*, the quarterly newsletter of MNPS. We welcome your articles, field trip reports, book review, 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 typed, saved in Microsoft Word or rich text format (rtf), and sent electronically to: carolinek@montanadsl.net or mailed to Kelsey Editor, 645 Beverly Avenue, Missoula, MT, 59801.

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

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.

The deadline for each issue is Fall–September 10; Winter–December 10; Spring–March 10; Field Trip Guide–April 10; Summer–June 10. Please send web items to our webmaster concurrent with these dates.

If you want extra copies of *Kelsey* for friends or family, call the Newsletter Editor, write to the above address, or email: carolinek@montanadsl.net

No part of this publication may be reprinted without the consent of MNPS. Reprint requests should be directed to the Newsletter Editor.

Visit our website at: www.mtnativeplants.org or contact our webmaster Bob Person at: thepersons@mcn.net

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Montana Native Plant Society

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