Windflower Native Plant Nursery  
Re-establishing Native Plants in Northwest Montana  
by Betty Kuropat

At Windflower Native Plant Nursery, hundreds of young native plants are tucked in for the winter. But activities are far from dormant. Winter is time to stratify seeds; prepare for germination; clean pots, trays, and tools; update species’ lists; coordinate spring orders; and update the website. Terry Divoky is the owner, horticulturist, sales manager, and bookkeeper; in short, she is Windflower Native Plant Nursery. The nursery is at Divoky’s home on the shore of Halfmoon Lake, at the base of the Apgar Mountains, about a mile from Glacier National Park.

The core of Terry’s business is getting people to use native plants. As the population in the Flathead area grows and expands into rural areas, she wants to encourage people to use native plants to give back some of what is lost in development. Native plants help maintain the natural landscape and provide for wildlife, birds, butterflies, and bees. Education and ethics are as big a part of her business as is growing and selling plants. She loves to talk with people about why and how to grow natives and the ecosystem benefits they provide. She usually works in a discussion of weed prevention and the risks of commercial wildflower seed mixes. She is always excited to see how many people are interested in native plants.

Terry specializes in growing plants native to northwest Montana. She uses locally collected seed to help maintain the genetics and provide plants adapted to the Flathead area. She sells most of her plants to landscapers and private land managers. She often contracts to collect seed and grow plants for those clients. One of them landscaped Deep Creek Ranch, near Choteau. I wonder if David Letterman knows his ranch headquarters is landscaped with Windflower’s native plants. Clients often ask Terry for landscape designs, in addition to plants. At first she declined; wanting to focus on growing her nursery business and not confident with her design skills. Now she includes landscape design into contracts for some clients. Terry also has a retail branch with outlets at the Whitefish Farmers Market, sales from her website, and word of mouth. She ships plants all over the country. The farmers market was a slow way to establish clients. It was more of a novelty for market-goers for the first few years. But her knowledge and enthusiasm, not to mention her healthy and beautiful plants, are good marketing tools. Now, after five years, people come to the market specifically for her plants.

Terry’s inspiration for native plant gardening that led to the nursery business began when she joined the Montana Native Plant Society in 1989. There she met Mary Sloan who mentioned that she grew native plants in her garden. Mary and Gary collect seed when they are hiking and plant them to see what happens. They showed Terry their garden and she thought it was great; fun, beautiful, and environmentally sensitive. So, she started doing the same in her gardens. Over the years, she heard more and more people say “someone should start a native plant business in the Flathead.” A few people occasionally offered natives at farmers markets, but nothing consistent. One nursery, called Nursery for Native Plants, operated successfully for several years. In the early 2000’s, Maria Mantas, who was also growing natives in her garden, set up a green house.

(Continued on page 7)
President’s Platform
Dave Hanna

Even though it’s winter, and most native plants here in Montana are dormant, there is still a lot going on with MNPS. While you should check out all the other articles in this newsletter regarding various happenings, there are a couple of big ticket items I want to highlight here.

The first is that the Conservation Committee is gearing up to put on the Plant Conservation Conference in Bozeman on February 27-28. MNPS is sponsoring this gathering to bring together all those working on conservation of native plants in Montana. Among other issues, the conference will continue the work on Important Plant Areas and the threats assessment for rare plants in the state. If you’re interested in native plant conservation in Montana, please join us in Bozeman and send in the registration form that is included in this newsletter.

The other momentous event I want to mention is that Linda Iverson is stepping down as long-time Landscape Committee chair. It would be hard to overstate the contributions Linda has made to MNPS and native plant landscaping, so make sure to read Madeline Mazurski’s tribute to her service to the Society. Thanks Linda!

The board continues to work to keep MNPS sound and vibrant, and our next board meeting will follow the Plant Conservation Conference in Bozeman on February 29. We’ll be reviewing plans for next summer’s annual meeting, finalizing the budget for 2008, awarding small grants, and more. We are also in search of a new webmaster to oversee our website. Many thanks to Kevin and Lisa Tucker for taking care of the website over the last year. Marilyn Marler has agreed to fill in as webmaster as we search for a replacement. Thanks Marilyn!

Don’t forget to get out and enjoy the winter, and here’s to a great year in 2008!

Nominate Someone
Very Special
MNPS Award Nominations Due

MNPS offers two awards. The Outstanding Service Award is given no more than once a year to a member of MNPS for service to the Society. The award includes a certificate and gift fitting the individual. The Special Achievement Award recognizes anyone whose work has contributed to the mission and goals of the MNPS; they do not need to be a member. This award consists of a certificate and possibly a gift. Only two of these awards have been presented. Last year, Peter Stickney received it, and in 2003 it went to Jack Rumely. The awards are presented at the annual meeting, scheduled for June 27-29 at Hyalite Reservoir south of Bozeman. Please consider taking a moment to nominate someone deserving an award. Any member can make a nomination. Nominations are due to the awards committee by April 1. The 2008 committee is Betty Kuropat and Wayne Phillips. You should include a written statement about the nominee’s contribution to MNPS and which award you are nominating them for. Many people are dedicated to Montana’s native plants and deserve these awards. It is truly an honor to be recognized. Send your nominations to Betty Kuropat, 2688 Witty Lane, Columbia Falls, MT 59912 or kuropat@bigsky.net, or call her at 892-0129.

Betty Kuropat

Call for MNPS Board of Directors’ Nominations

The following positions on the Montana Native Plant Society Board of Directors are up for election: Vice President, Secretary, and Eastern Director At-large. If you would like to nominate someone for any of these positions, please contact Dave Hanna at 406-466-3661 (pteryxia@3rivers.net). The deadline for nominations is February 15 and the ballot will be included in the spring Kelsey.

MEMBERSHIPS ARE DUE!

It’s that time again! Your membership in MNPS will expire the end of February. Watch your mailbox in January for a renewal reminder and send your membership to the address in Missoula. Montana’s native plants are counting on you for support in the coming year.

WELCOME new members!

The Montana Native Plant Society extends a warm welcome to the following new members:

Calypso Chapter: Kerstin Lorenzen; Clark Fork Chapter: John & Eleanor Csoka, Joan Ellen Davis, Scott Matz, Robert Morrissey, Jack Rowan, Kenneth Stolz; Flathead Chapter: Betty Kijewski; Kelsey Chapter: Sandi & Bill Olsen; Valley of Flowers: Katherine Robbins; Eastern At-large: Ruth Clark.

Your participation and support are important to us! Please contact your chapter representative with any ideas or suggestions you may have. They are listed on the back page of this newsletter. Thanks for supporting Montana’s native plants!

Dave can be reached at P.O. Box 842, Choteau, MT 59422 406-466-3661 e-mail: pteryxia@3rivers.net
Will Plants Run Your Car?

by Peter Lesica

There is debate in the scientific community about the role of biofuels in mankind’s future energy supplies. At first glance biofuels might seem like a good idea for solving dependence on foreign oil, while producing lower net greenhouse gases than petroleum. Further, large-scale biofuel production promises guaranteed domestic agricultural markets. However, there are several reasons to be skeptical about biofuels as an answer to the energy needs of our country and planet.

Current and future energy demands are great, but the efficiency of biofuel energy production is not. It is estimated that biofuels produce between 1.3 and 3.2 units of energy for every unit used. This low efficiency means that there will be little net gain for the effort expended and little reduction in the production of greenhouse gases. Recent research suggests that nitrous oxide entering the atmosphere as a result of using nitrogen fertilizer to produce biofuel crops will contribute more to global warming than the amount saved by using less fossil fuel. Furthermore, the most efficient crops are those that require the best agricultural land and the most fertilizer. Large-scale biofuel production will also likely result in an increase in water pollution due to increased use of fertilizer and pesticides for raising crops such as corn and soybeans. They also require significant water to produce the fuel, frequently six gallons of water for each gallon of biofuel produced. Biofuel proponents argue that residues from biofuel production, such as distilled grain and soybean meal, can be used for livestock feed. However, producing even 10% of current energy demand in the U.S. would generate almost 40 times the livestock feed currently used. Clearly the byproducts of large-scale biofuel production must be considered a serious waste disposal problem rather than a benefit at this time.

The biggest issue with large-scale biofuel production revolves around land. Large tracts of land will have to be diverted from other beneficial uses. Producing fuel from crops such as corn, sunflowers, and soybeans will divert land from food crops with a resulting reduction in food security. Some estimates suggest that providing fuel for one average U.S. automobile for one year would require three tons of grain. Latin America, particularly Brazil, Bolivia, Argentina, and Columbia, have potential to greatly expand their agricultural frontiers, but unfortunately this would come at the expense of native forests and grasslands, including some of the world’s biodiversity hotspots. A recent report by the United Nations Food and Agriculture Organization (FAO) indicates that biofuel could provide economic opportunities in developing countries if it resulted in an increase of small producers. However, the FAO notes that expansion in biofuel production will most likely result in an increase in local crop prices and a transfer of income from poor urban people to wealthy large-scale farmers.

Large-scale biofuel production will likely also have significant ramifications for the Northern Great Plains of eastern Montana and adjoining states and provinces, even though this region does not have either the climate or irrigation to raise corn, soybeans, or other highly productive biofuel crops. In fact, nearly 80% of Montana’s cropland is considered highly erodible by the Natural Resources Conservation Service due to low annual precipitation and potential for wind erosion. Most of our remaining native rangeland also falls into this “highly erodible” category. A great deal of highly erodible land was plowed up nearly 100 years ago and then abandoned during the dust-bowl years when the climate became hotter and drier. Since then, farmers have continued to sodbust native rangeland whenever markets allowed for a profit on dryland crops. These profits were always short-lived however, because the topsoil was thin, and wheat markets are cyclical. The Government Accounting Office reports that 25 million acres of grassland were converted to other uses, primarily cropland, between 1985 and 2003. Conversion continues unabated across the northern plains according to the Farm Service Agency, with over 100,000 acres of grassland converted to cropland in North Dakota since 2003, and over 26,000 acres converted in Montana the past three years. Now much of this marginal cropland, that should never have been broken in the first place, has been planted to low-diversity grasslands under the Conservation Reserve Program (see Kelseyia Vol. 8, No. 3; 1995).

Even though Montana will never be a significant source of highly productive biofuel crops such as corn, we have more to lose than many other parts of the Great Plains. Increased demand for biofuel crops and the concomitant higher prices will spark an increased demand for wheat and other dryland crops to replace them in human and domestic livestock diets. In addition, biodiesel can be made from dryland crops such as camelina (Camelina sativa). As a result, biofuels are being touted as an economic boon for the Montana farming sector, and they might be in the short-term. However, it should be remembered that the sodbusting of the early 20th Century was also a short-term boom that resulted in a long-term loss due to soil erosion and the cost of reclaiming the land to perennial grass. Biofuels may seem like a good idea right now, but the greenhouse gas emissions, fertilizer use, waste disposal, and food security problems make large-scale biofuel production unsustainable. Humans already appropriate 40% of the earth’s biological productivity. Further agricultural disturbance is untenable because natural ecosystems provide critical support for all life on the planet. Because of these problems, a short period of biofuel glory days will likely be followed by a decline in demand and production as better, non-polluting energy sources come on line. Marginal cropland will again become idle and in need of restoration. We could be at the beginning of another round of sodbusting and loss of one of Montana’s most precious resources, native prairie.

It is possible that native grasslands (Continued on page 4)
...Biofuel (Continued from page 3)
could be used for biofuel production. David Tilman at the University of Minnesota proposes that biofuels derived from native grassland hay could provide more energy and greater CO2 reductions than corn-based ethanol or soybean-derived biodiesel without fertilizer or significant changes in food security (Kelseya Fall 2006). His predictions are based on studies showing that high-diversity grasslands sequester more energy per acre than grasslands with one or two species. Furthermore, native grasslands store more carbon in the soil than crops that require annual tillage. If the technology can be developed to extract the energy from native hay, we can produce biofuels with little loss of native habitat and the services it provides.

Most ecologists familiar with the issue agree that biofuels can never be expected to supply more than a small part of our energy. Long-term solutions to humanity's future energy needs must be based on two strategies: non-polluting sources of energy such as solar and wind, and conservation. We will have to live in smaller houses and drive smaller, more fuel-efficient vehicles. We may have to drive less, and we may have to turn down the thermostat and put on a sweater. Native prairie is one of the most endangered ecosystems in North America. Numerous plants and animals depend on this habitat to persist. It is important that any legislation promoting biofuel production also carry provisions to protect native prairie from sodbusting. Whatever role biofuels play in our energy future, it is not worth trading the loss of native prairie ecosystems for a short-term economic surge.

Further reading:
GAO. 2007. Farm program payments are an important factor in landowners' decisions to convert grassland to cropland. GAO-07-1054. 70 pp.
Tilman, D., J. Hill and C. Lehman. 2006. Carbon-negative biofuels from low-input high-diversity grassland

Linda: End of an Era!

Linda Iverson, our valued MNPS member, is stepping down from the board as the Landscape/Revegetation Committee Chairperson. She has filled this position since 2001. Under Linda’s leadership and a vast amount of involvement and work, the Landscape Committee published the Source Guide for Native Plants of Montana, a comprehensive list of the native plants available for sale and the nurseries that sell them. While originally created to share native plant knowledge, the Source Guide also turned into a solid fundraiser for the Society. And, as if one time through a monumental task wasn’t enough, she took on the whole task again for a second edition! She still has plans to update the guide for the website, so keep watch for that. Linda has been a strong proponent of native plants in landscape design and encouraged chapters to develop area-specific landscape information packets (while also being an integral part of developing the packet for the Valley of Flowers Chapter). She has represented our Society at trade shows and other venues, has written several landscaping articles for the Kelseya, and is always found putting in a good word for native plants. Linda’s strength has been in getting others involved and excited about the work and keeping the Landscape Committee functioning, no small feat for a group that only meets once a year.

Linda has had a long tenure on the MNPS board: she has also ably served as president, past president, and still remains our publications chair, but we will miss her regular presence at our board meetings. Thanks Linda for your commitment to MNPS and native plants!

Although Linda is a hard act to follow, we are very lucky to have a wonderful committee chair replacement in Kathy Settevendemie, recently profiled in our Fall 2007 issue of Kelseya. We look forward to having Kathy join the board.

Madeline Mazurski

Common native prairie species: blue grama (Bouteloua gracilis), Hood’s phlox (Phlox hoodii), and prairie junegrass (Koeleria macrantha).
Small Grant Report

Children’s House
Montessori School

During the spring and fall of 2007, the children at Children’s House Montessori School (CHMS) in Whitefish were busy installing their own native plant garden. Thanks to a $750 small grant from the Montana Native Plant Society, the children helped to plant 130 plants of 32 different native species at their school. The goals of the native plant garden are: (1) to provide CHMS with an outdoor classroom that the children and teachers create, maintain, and use as part of their annual curriculum for years to come; (2) to create an attractive, low-maintenance, water efficient garden in an area that was barren, to showcase to the community how native plants can be used effectively for landscaping; and (3) to offer additional educational opportunities and improved aesthetics to adjacent schools and the community in this visible and handicapped-accessible area.

Jen Asebrook, coordinator of the garden project, led in-class activities for the kids (ages 3 to 6) during the spring and fall. Despite their age, they were able to learn the difference between native and non-native plants and learn to identify the basic parts of a plant. Their enthusiasm clearly came to life when they went to their garden to plant. As we planted, we talked about what plants need to live, the interesting names of the plants, and how each plant was unique. Many kids were part of both spring and fall planting events, many of them exclaiming things like, “There is the pussytoes I planted before!” when they returned in the fall. There is a meandering gravel walking path through the garden that the children take great care to stay on so they don’t trample their special plants.

An additional $1,300 of goods and services were donated to this project. Bruce Boody, a local landscape architect, designed a general landscape plan. He also donated a 10-foot ponderosa pine, as well as its installation. Stanton Stone of Kalispell donated one large landscape rock in addition to a large palate of smaller, lichen-covered landscape rocks. Restororation, Inc., owned by Greg Gunderson, donated mulch for the entire project, as well as several aspen trees and shrubs. Finally, Terri Divoky, owner of Windflower Native Plant Nursery and grower of all the native plants used in this project, donated several plants to the project, as well as some well-appreciated hours of weed pulling! While many of the plants were small at the time of planting, the garden already has a soothing, rock-garden appeal with little weed cover. Many plants already put out blooms this year.

A small amount of the grant money remains to plant 40 additional plants in the spring of 2008. Some of these plants were too small to plant this year and in addition, we wanted to see how the garden fared over the winter, allowing us the opportunity to plant in areas where we had mortality. If you want to get your hands dirty and like to work with young children, please feel free to lend a hand in the spring to plant the remaining plants. You are also welcome to visit the CHMS native plant garden at any time. It is located in Whitefish along the CHMS parking lot on Ashar Avenue, off of East 7th Street on your way to Muldown Elementary School. A sidewalk along the edge of the garden also makes it handicapped accessible.

Many thanks to the Montana Native Plant Society for awarding CHMS a small grant to get this wonderful project off the ground.

Jen Asebrook

Linear-leaf Moonwort
Removed From List

On December 6th the U.S. Fish and Wildlife Service (USFWS) removed Botrychium lineare (slender moonwort, or linear-leaf moonwort) from candidate status under the Endangered Species Act. The reasons cited were the increase in the number of populations located and the increased geographical distribution of the species. “This species is known from 22 sites spread across 8 states” and two Canadian Provinces. “Seventeen of the 20 known sites in the United States occur on Federal lands, with three sites found on private lands.” Some monitoring and protection for this plant are in place or proposed on federal lands. The large geographical area (107,000 square miles) within which this plant has been found, as well as the small size of the individual plants (making them difficult to locate) and the many similarities to other moonworts (creating difficulty in making a solid field determination) seems to add up to the conclusion that additional populations are out there but are as yet undiscovered. Additionally, the USFWS stated, “there is insufficient information to justify its continued candidate status.”

This is certainly a small moonwort, and undoubtedly one that is very uncommon. Many of the 22 populations are small in number and quite vulnerable. The geographical range may be 107,000 square miles, but the total space occupied by these plants might not even cover one acre. So while the species has been removed from the Endangered Species Act candidate list, it is still on the Montana Natural Heritage Program’s Species of Concern list, with only six small populations known from Montana, two of which are historic, and remains rare throughout its range.

Drake Barton
The Journey to Montana's Fossil Forest

...2008 Annual Meeting

You may be surprised to learn that the forests that once flourished during the Tertiary Period in south-central Montana were filled with magnificent redwood (Sequoia magnifica), amethyst pine (Pityoxylon amethystinum), aromatic bay (Perse oxyxylon aromaticum), and Hayden's sycamore (Plantaninum haydeni).

The Valley of Flowers Chapter invites you to step back in time for the 2008 MNPS Annual Meeting, June 27-29. Our weekend foray will be held at the scenic and comfortable Hyalite Youth Camp, just a short drive from Bozeman, Montana. Cabins, tent, or trailer space accommodations will be available.

The weekend will start off Friday night with a fascinating presentation of these remarkable relics by earth scientist Jim Wilbur, who has studied the Gallatin Fossil Forest. Half-day to full-day field trips are being planned throughout the weekend, the highlight of which will be an all-day hike to Specimen Ridge south of Big Horn Peak in the Gallatin Canyon on Saturday to see the amazing remnants of our ancient forests. And, what would the annual meeting be without the annual Plant ID workshop? Or you can view the medicinal plants in the area or go on a lichen hunt with local experts. Late June will likely evidence such forest beauties as bracted lousewort (Pedicularis bracteosa), bistort (Polygonum bistortoides), arnica (Arnica cordifolia), purple-checkered lily (Fritillaria atrorubore), and fairy slipper (Calypso bulbosa).

Come walk among fossilized relics of 50 million-year-old trees! All the details will be spelled out in the spring newsletter. For now, mark your calendars. You just might be petrified by the ancient botany of Montana's history!

The Sunflowers

Come with me into the field of sunflowers.
Their faces are burnished disks,
their dry spines creak like ship masts, their green leaves,
so heavy and many,
fill all day with the sticky sugars of the sun.

Come with me to visit the sunflowers, they are shy but want to be friends;
they have wonderful stories of when they were young—
the important weather, the wandering crows.

Don't be afraid to ask them questions!
Their bright faces, which follow the sun, will listen, and all those rows of seeds—
each one a new life!—hope for a deeper acquaintance;
each of them, though it stands in a crowd of many,
like a separate universe, is lonely, the long work of turning their lives into a celebration is not easy.

Come and let us talk with those modest faces, the simple garments of leaves, the coarse roots in the earth so uprightly burning.

Mary Oliver, New and Selected Poems, Volume 1
Submitted by Jim Greene; Poems, Songs and Stories of the Plant World Committee

Kelsey—Passing the Torch

Who would have thought time could pass so quickly? It's hard to believe that our first issue of the Kelsey as editors was the winter/spring issue in 2001. Seven years and 28 quarterly issues later, we are stepping down as editors of the Kelsey in favor of time to do more botanical fieldwork. During our tenure we have striven to make the newsletter a professional, consistent, informative, and interesting communication tool, and it has been an honor to serve the Society in that capacity.

It is our pleasure to announce that the newsletter will be in very capable hands. Jackie Cohen from the Clark Fork Chapter was selected by the board to serve as Kelsey editor. Jackie has been a reporter for the Missoulian; authored Farewell, My Friend, a series of stories used in hospice training; a newsletter editor for Har Shalom, producing a monthly newsletter for four years; a reporter and editor for Balochistan Area Development Projects in Pakistan; a production specialist for Adventures Cycling; a free-lance magazine writer for Women's Sports and Fitness and Walking; and a writer and producer of hard-bound family history narratives. In addition to all that experience, Jackie has been a member of MNPS for 10 years and has served in various capacities on numerous boards.

We would like to welcome Jackie as an integral part of the MNPS community. We know she will bring fresh ideas and a new look to our newsletter. If you want to communicate with Jackie she can be reached by phone at 406-273-3104 or by e-mail: jcohen@bigsky.net.

Kathy Lloyd and Drake Barton

Hyacinths to Feed the Soul

If of thy mortal goods thou art bereft,
And from thy slender store two loaves alone to thee are left,
Sell one, and with the dole
By hyacinths to feed thy soul.

Attributed to the Gulistan of Moslih Eddin Saadi, a Persian poet who lived about 1184-1291
and established Stillwater Native Plant Nursery. Soon after, Terry joined Maria as a business partner. Terry learned a lot about the plants from Maria and they both learned a lot of nursery skills. Terry took over the business and changed the name to “Windflower” when Maria moved from the Flathead in 2004. Terry credits many of her Plant Society friends for inspiring and motivating her, and teaching her about native plants, their environments, gardening, and propagating. Among them are Mary and Gary Sloan, Maria Mantas, Sheila Morrison, Joyce Lapp, and Peter Lesica.

Windflower Nursery is truly a home-based industry. A small greenhouse doubles as winter tool storage and a shade house doubles as winter storage for dormant plants. Several “theme” gardens around the house have plants growing to maturity, as experiments, or simply to look nice. Terry’s house is partially taken over by plants, especially in fall and winter. In late summer and fall, the office and any other “spare” space is occupied by drying seeds. In fall and winter, the kitchen becomes a seed stratification lab. Some seeds need warm stratification on the counter or near the heater; others need cold stratification in the refrigerator or freezer. Each baggy and container of seed has a label with the species, type of stratification, date in, and date to move out to germination trays. A big tub of soil sits mixed and ready on the kitchen floor. Fall is also time to wash and bleach pots—in the bathtub. After the seeds are stratified, they are sown in germination flats and moved to the garage under grow lights. Most species germinate in the dead of winter, just when the Divokys would love to park their cars inside. As they develop in the spring they are moved to the greenhouse and transplanted into individual pots. Every species has its own particular requirements. Some are ready to sell less than a year from seed collection; others take two to four years to develop and become rooted and hardy enough to plant into a garden.

Windflower’s 2008 plant list is extensive. There are more than 40 species of forbs, two grasses, and eight shrubs. Most of the shrubs are new to the nursery and are considered “experimental.” Landscapers and home gardeners apparently have different favorites. Landscapers prefer bee balm (Monarda fistulosa) and anything aster (including asters, fleabane (Erigeron), arnicas, and blanketflower (Gaillardia aristata)). Best sellers for home gardeners include blue flax (Linum perenne var. lewisi), penstemons, alum root (Heuchera cylindrica), silky phacelia (Phacelia sericea), prairie coneflower (Ratibida columnifera), bee balm (Monarda fistulosa), clarkia (Clarkia pulchella), and yellow columbine (Aquilegia flavescens). Terry says she never has enough columbine, and if she could grow bear grass (Xerophyllum tenax), she would sell “tons.” Some species are challenging. Terry says arnicas are temperamental, lupines don’t like to be moved, lily family species take three to five years to develop a bulb, and arrowleaf balsamroot (Balsamorhiza sagittata) needs special pots and takes several years for the long taproot to develop.

Terry is working on a Spalding’s catchfly (Silene spaldingii) restoration project with Peter Lesica. She is growing plants to supplement the population on Wild Horse Island in Flathead Lake. In partnership with the U.S. Fish and Wildlife Service, Peter collected the seed, Terry will grow them, and they both will outplant the seedlings. The seeds are currently in a two-month cold stratification in plastic food containers in the refrigerator. Terry and her husband, Dennis, gave up beer space for these seeds. After stratification, the seeds will germinate in flats in the garage. In spring, they will move to the greenhouse, then the shade house, and be ready to plant by fall.

The nursery keeps Terry busy. But that’s only a fraction of all she accomplishes. Terry works full time teaching library and media information skills as elementary librarian for Columbia Falls School District. She says she has no time for anything else; that’s why she plans to retire from teaching after this school year. However, she does fit in other activities. She is active on neighborhood land use planning committees. She is a “core” member of the Flathead Chapter of the Montana Native Plant Society. She and Dennis have three active dogs that get at least one walk every day, and like to bury bones and lay in the gardens. In the summer she hikes and kayaks, in the winter she likes to cross-country ski.

A visit to Terry’s website is well worth your time, even if you aren’t interested in buying plants. Her communication skills and passion for education are evident. There is a wealth of information about native plants, including individual species’ descriptions, frequently asked questions about gardening with natives, an overview of the nursery, beautiful pictures, as well as links to other plant sites. Visit http://www.windflowernativeplants.com. You can also call Terry at 406-387-5527 or e-mail to tddi-voky@centurytel.net.

**Invasive Species in Natural Areas**

**A Conference on Impacts and Management**

The conference is scheduled February 13-14, 2008, at the Hilton Garden Inn in Missoula, Montana. This is a conference at the interface between applied research and management of invasive species in natural areas. During two days, university and agency researchers will meet with land managers of the Rocky Mountain States to discuss possibilities and problems specific to the management of invasive species in natural areas. We also would like to discuss the formation of a Rocky Mountain EPPC (Exotic Pest Plant Council) with participants.

In addition, we are currently planning satellite biological control consortia meetings for Tuesday, February 12, 2008, at the Hilton. We will keep you informed on the details.

Online Registration and Abstract Submissions are available at:
http://www.missoulaeduplace.org/weeds_conference.php

Marijka Wessner
Please remember to leave pets at home during MNPS field trips.

ARTEMISIA CHAPTER
For a schedule of Artemisia Chapter events or to get your questions answered, please call Leslie at 445-9178.

CARYLPSO CHAPTER
Thursday, January 10, 5:30 p.m.
Toby Day, the MSU Extension agent in Butte, will present “Native Sod Development or How You Can Achieve a Sustainable Grass Area in Your Yard” on the Montana Tech campus. The meeting room will be announced in early January and you can call Catherine Cain at 498-6198 or Kriss Douglass at 782-9060 for details.

February – date to be announced
Professor Grant Mitman will present a 3-hour Saturday morning class at Montana Tech called “Botanical Illustration #2.” The date and details will be announced in early January.

March – date to be announced
A program on knapweed control is planned. Call Catherine or Kriss for details.

CLARK FORK CHAPTER
Monday, January 14, 7:30 p.m.
Everyone likes butterflies, and they are completely dependent on plants for food as caterpillars and nectar as adults. Steve Kohler, the foremost expert on Montana’s butterflies, will give a presentation on “Montana’s Butterflies and their Plants.” Rm. L14 Gallagher Business Bldg., UM Campus. This will be a joint meeting with Montana Audubon (note the different day and room).

Tuesday, January 29, 7:30 p.m.
Herbarium Night. “What is the Phlox Family Doing in Montana?” Join Peter Stickney, Curator of the Forest Service Herbarium, to explore the diversity of this family. Rm. 303, Botany Bldg., UM Campus.

Thursday, February 14, 7:30 p.m.
Some of us go to Arizona to escape Montana’s winters; UM professor of genetics, Fred Allendorf, goes to New Zealand with his trusty digital camera. Come and see what it’s like to have summer in January: “Wildflowers From Down Under.” Rm. L14 Gallagher Business Bldg., UM Campus.

Tuesday, February 26, 7:30 p.m.
Herbarium nighters always want to learn about grasses. So let’s start with the worst. Groove on cobwebby lemmas with Peter Lesica and “Bluegrasses of Montana.” Rm. 303, Botany Bldg., UM Campus.

Thursday, March 13, 7:30 p.m.
For the past 11 years, College of Forestry plant ecologist Paul Alaback has been climbing the hill and keeping track of when over 100 species bloom to answer the question: “Early Wildflowers on Mt. Sentinel—a Harbinger of Global Warming?” Rm. L14 Gallagher Business Bldg., UM Campus.

Tuesday, March 25, 7:30 p.m.
Herbarium Night. The new Flora of North America treatment for Antennaria is out, and Scott Mincemoyer, Montana Natural Heritage Program botanist, has spent a bunch of time trying to figure it out. Come and hear what he’s learned about “Montana’s Pussytoes.” Rm. 303, Botany Bldg., UM Campus.

Thursday April 10, 7:30 p.m.
Can you remember the names of those wildflowers? You haven’t seen them for nearly a year. Get an early-season refresher when Clark Fork Chapter photographers show slides of “Western Montana’s Forest Wildflowers.” Rm. L14 Gallagher Business Bldg., UM Campus.

EASTERN MONTANA
For information about eastern Montana events call Wayne Phillips at 453-0648.

FLATHEAD CHAPTER
Please join us for our monthly chapter meetings and programs in the Meeting Room at the Kalispell County Library. The Kalispell County Library is located at 247 1st Avenue East in Kalispell. The Meeting Room is in the basement of the library. At 5:30 p.m., everyone is welcome to the business and working meetings. All programs listed below begin at 7:00 p.m. Please contact Jen Asebrook at 863-9630 with questions.

January – date to be determined
Working meeting to plan for the plant family workshop later in the spring. The meeting will be hosted at Linh Hoang’s house. Members should watch their email for details or call Jen Asebrook for further information.

Wednesday, February 6
Scott Mincemoyer of the Montana Natural Heritage Program will give a presentation on the rare plants of Montana.

Wednesday, March 5
Anita DuPuis will host a program on Native American plant food nutrition.

Wednesday, April 2
Our second annual Plant Families Workshop. Due to the great response we received last year, we will host another workshop focusing on six different plant families. This year we will cover the Orchid, Heath, Pink, Buttercup, Saxifrage, and Figwort families.

Wednesday, May 7
Artist Karin Connelly will host an art workshop focusing on native plants.

Wednesday, June 4
In place of a meeting, Bill McClaren will lead a field trip to a new native plant garden at the Central School Museum. Meet at the Central School Museum at 5:30 p.m.

KELSEY CHAPTER
For more information about Kelsey Chapter programs and events, call Kathy at 449-6586.

Friday, February 1, 6:30 p.m.
Hands-on session, “Grass ID” with Wayne Phillips. Room 321 in Simperman Hall (Old Science Hall) at Carroll College.

Wednesday, February 20, 6:30 p.m.
Hands-on session, “Artemisia: Which Sagebrush is This?” with Steve Cooper and Scott Mincemoyer. Room 321 in Simperman Hall (Old Science Hall) at Carroll College.

MAKA FLORA CHAPTER
For information about the Maka Flora Chapter call Rebecca Kallevig at 488-5455.

VALLEY OF FLOWERS
Valley of Flowers meets on Tuesday each month at the Agbioscience Building, Room 108 at 7:00 p.m. For more information call Joanne Jennings at 586-9585.

Tuesday, January 8, 7:00 p.m.
Robyn Klein will discuss “Natives We Can Eat and Use in Special Ways.”

Tuesday, February 12, 7:00 p.m.
Matt Lavin will tell us about “20 Montana Graminoids that all Botanists Should Know.” Come and see if you do know them.

Tuesday, March 11, 7:00 p.m.
“Native Perennials for Your Yard.” Do you have some holes that need filling?

WESTERN MONTANA
For details about activities in western Montana, call Judy Hutchins at 847-2717.
Opinions

Beartooth Travel Management DEIS

The Custer National Forest’s current draft environmental impact statement, which concerns the Pryor Mountains and the Beartooth Plateau, hardly addresses vegetation. It completely ignores sensitive plant species. I am appalled at this omission. I worked as a botanist on adjacent BLM administered land in the Pryor Mountains for five years and as a Wild Horse and Burro Specialist in that same area for eleven years. I have also worked for the BLM as a Botanist/Watershed Specialist/Range Conservationist/Wild Horse and Burro Specialist in other parts of Montana and in California. In all, I spent 28 years in these positions. I can say, without fear of valid contradiction, that the Pryor Mountains are a botanical gem that is threatened by off-highway motor vehicles (OHMVs).

When I started the botanist position, no fewer than 35 plant species considered sensitive by the Natural Heritage Program had been observed in the Pryor Mountains. These included: Big Horn fleabane (Erigeron allocatus), bird’s foot sagebrush (Artemisia pedatifida), bud sagebrush (Artemisia spinescens), ground milkvetch (Astragalus chamaeleuce), dwarf ipomopsis (Ipomopsis pumila), Geyer’s larkspur (Delphinium geyeri), Gray’s milkvetch (Astragalus grayi), Great Basin gilia (Gilia leptomeria), hoary Townsendia (Townsendia incana), sticky scorpionweed (Phacelia ivesiana), larch-leaved beardtongue (Penstemon laricifolius), matted nama (Nama densum), naked stemmed evening primrose (Camissonia scapoida), narrow-leaved Indian paintbrush (Castilleja angustifolia), obscure evening primrose (Camissonia andina), pale yellow cryptantha (Cryptantha flavoculata), platyschkuhria (Platyschkuhria integrifolia), rokey tansy (Sphaeromeria capitata), rough mule’s ears (Wyethia scabra), shy gilia (Gilia inconspicua), small blazing star (Mentzelia pumila), small-flowered evening primrose (Camissonia minor), smooth woody aster (Xylorhiza glabriuscula), southern twinpod (Physaria acutifolia), spiny hopsage (Grayia spinosa), summer milkvetch (Astragalus hyalinus), sword Townsendia (Townsendia sphautilata), beaked streptanthella (Streptanthella longirostris), Torrey’s bitterweed (Hymenoxys torreyana), Torrey’s desert dandelion (Malacothrix torreyi), tufted prickly phlox (Leptodactylon caespitosum), Wind River milkvetch (Astragalus oreganus), woolly prince’s plume (Streptanthella longirostris), and yellow bee plant (Cleome lutea).

Apparently however, the BLM wanted to sweep rare plants under the rug. I tried to initiate several intensive studies of these plants, but BLM higher-ups strenuously opposed me every step of the way. It is very possible that the BLM wanted a botanist for cosmetic purposes only; they did not want me to do anything. This is how the BLM often operates behind closed doors. After a great deal of effort and tenacity however, I finally prevailed. The studies were conducted.

These studies indicated that most of the subject plants may have been rare elsewhere in Montana, but they were not rare in the Pryors. This alone makes the Pryors a botanical gem. Five additional rare species were found, however. In the end, nine Pryor plant species were considered BLM Sensitive. These include: desert cryptantha (Cryptantha scoryaria), Geyer’s milkvetch (Astragalus geyeri), matted nama (Nama densum), obscure evening primrose (Camissonia andina), Pryor Mountain milkvetch (Lesquerella lesicii), shoshonea (Shoshonea pulvinata), small evening primrose (Camissonia parvula), smooth buckwheat (Eriogonum salsuginosum), and Torrey’s desert dandelion (Malacothrix torreyi).

All studies were conducted on BLM administered land. To my knowledge, the Custer National Forest never did any studies for rare plants on their lands. It is probable that all 40 of these plants species were also on Forest Service administered land. I suspect that the Forest Service also wants to sweep rare plants under the rug. They have closed the Beartooth Plateau to OHMVs, so it is possible they have decided to give their land in the Pryors to the OHMVs. In other words, the Forest Service wants to make their land in the Pryors a sacrifice area to OHMVs. If so, this is outrageous.

The official comment period has ended but your opinion can still be heard. Write: Mr. Doug Epperly, Project Leader, Custer National Forest, 1310 Main St., Billings, MT, 59105.

If you are interested in helping to protect the unique plant life of the Pryor Mountains, contact MNPS members: Mark Taylor (mark@learningclinic.com), Dick Walton (dwalton@imt.net), Clayton McCracken (chmc9@bresnan.net), or Don Heinze (donald_heinze@yahoo.com).

Don Heinze

Calypso Chapter Report

The Calypso Chapter had a great Christmas gathering on December 9th with a record 21 folks sharing good cheer, great food, and plant stories. Krystal Weilage, the new native plant specialist at Montana Tech gave a presentation on “Growing Native Plants: From Seed Collection to Outplanting.” One of the main purposes of her work will be to add plant diversity to reclamation sites in the Butte Silver Bow-Clark Fork Basin reclamation areas. We are all looking forward to spring programs and field trips in April or May. Field trips will be announced a month beforehand pending the end of winter. Everyone is welcome to attend our meetings and field trips—the more the merrier! And we want to thank everyone in MNPS and the community for their support this past year and wish all a HAPPY NEW YEAR.

Catherine Cain
New Field Guide

If you haven’t seen the updated Montana Natural Heritage Program Plant Field Guide, take some time to get acquainted at http://fieldguide.mt.gov. Once there you can explore the animal, plant, or lichen kingdoms. Choose the plant kingdom (we are the Native Plant Society, after all) and you find yourself at the doorway into the plant kingdom taxonomic rank system. You can click through the various groups, or just click on the kingdom Plantae and that will narrow down your search options. If you choose Angiosperms (flowering plants), then enter Monocots, you can explore a number of Montana’s plant families, including the large Orchid, Lily, Sedge, and Grass families. Now, if you enter Orchids, this page has a spot for all the Orchids known for Montana. You can further sort these by scientific name, common name, or taxonomy. Go wild and choose the scientific name, sort, and the first on the list is *Amerorchis rotundifolia*, round-leaved orchis, a Montana Species of Concern. This entry has images, a brief description, a map of known occurrences, and other useful information, as well as links to other websites.

This new guide is a very recent addition to the Heritage website and a very ambitious one. The site is still under construction and many of the plants need to be filled out in terms of description, Montana photos, and state distribution (this may be in the form of a link to the under-construction MONTU website, but the framework is in place and very cleanly displayed.

The scientific names are a collection of old and new names, but generally reflect what has been most recently used in state or regional floras. This may change when a new Montana flora is complete within the next few years. Until then, the most recognized synonymy is included and can be searched using the search field guide function. And while the scientific names may change, it can be hoped that the common names will hold firm. This is a huge undertaking and the Montana Natural Heritage Program should take a collective bow. They would appreciate corrections, updates, and questions (they know several additional plants known from the state need to be included). They will be adding images they already have, but will be looking for additional high-quality images of many plants, so please contact Scott Mincemoyer at smincemoyer@mt.gov with comments, questions, or suitable images you would be willing to donate.

Drake Barton

Available from MNPS

Available free from MNPS Publications: MNPS membership brochures, *Plant Collection Guidelines for Teachers* brochures, and *Echinacea* Cultivation Information. Also available are additional copies of *Plants Collected in Montana During the Lewis & Clark Expedition*. Please send a SASE to 1270 Lower Sweet Grass Road, Big Timber, MT 59011 to receive any of these publications.

Available from the Flathead Chapter: a packet of information about gardening with Flathead Valley native plants. The packet can be mailed to you for $3.50. Contact Tara Carolin at 334 North Many Lakes Drive, Kalispell, MT 59901.

Available from the Kelsey Chapter: a packet of information on landscaping with natives in the Helena area. The packet will be mailed to you for $3.50. Contact Kathy at 449-6586 or e-mail: drakekath@hughes.net to order.

Available from the Valley of Flowers Chapter: a booklet of information on landscaping with natives in the Bozeman, Livingston, and Big Timber areas. The booklet will be mailed to you for $6.50. Contact Denise Montgomery at 586-0156 or e-mail: nmontgomery@montanadsl.net to order.

Visit the MNPS website at www.umt.edu/mnps to download in pdf format *Guidelines for Selecting Horticultural Plant Material for Montana*, voluntary guidelines by MNPS and the Montana Nursery and Landscape Association; and *Lewis & Clark Plants Collected Elsewhere That Occur in Montana*, an inclusive list of Lewis & Clark plants found in the state.

Lichen & Moss, Oh My!

The annual meeting of the Northwest Scientific Association is scheduled for March 26-29, 2008, at the University of Montana in Missoula. The general meeting of the Northwest Lichenologists will be held in conjunction. A well-known lichen hotspot, the U of M is the alma mater of many lichenologists, including Ann DeBolt, Bruce McCune, Andrea Pipp, Roger Rosentreter, Tim Wheeler, and others. Our local host will be Andrea Pipp, apipp@pbsj.com.

The tentative schedule includes an evening social on Wednesday, March 26; contributed papers and symposia on Thursday and Friday; and a field trip on Saturday.

We are also considering having a get-together for the subset of people who have been actively collecting lichen and moss in Montana and are interested in improving the Species of Concern list for the Montana Natural Heritage Program. If you are interested in participating in this, you should let Andrea Pipp know.

For information about the Northwest Scientific Association visit: http://www.vetmed.wsu.edu/org_NWS/NWSci_Home.htm and for information about the Northwest Lichenologists please visit:

FireWorks Master Class Scheduled

The FireWorks master class is scheduled for February 22-23 at the Firelab in Missoula. Fire prevention specialists, fire information officers, trainers, environmental educators, and other community members are invited to a free, 2-day workshop on the science of wildland fire.

The FireWorks program, a curriculum and traveling trunk, offers 36 hands-on activities about fire behavior, ecology, and management. The workshop covers more than 30 activities and also teaches participants how to train others to use the program. Renewal credit and University of Montana credit are available.

For more information or to enroll, please call or e-mail Autumn Yanzick (ayanzick@fs.fed.us), 406-829-6894.
MNPS Chapters & the Areas They Serve:

ARTEMISIA CHAPTER - Yellowstone and Carbon Counties; southeastern/south-central Montana
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, McCona, 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: ART= Artemisia; CAL= Calypso; CF= Clark Fork; F= Flathead; K= Kelsey; MF= Maka Flora; VOF= Valley of Flowers
DATE YOUR MEMBERSHIP EXPIRES: If your label reads “2/06” your membership expired February 28, 2006. Use this form to renew your membership TODAY! Please drop us a note if any information on your label is incorrect. 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 Kelsey 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!

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Kelsey Winter 2008
Montana Native Plant Society

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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 typed, saved in Microsoft Word or rich text format (rtf) for a PC, and sent electronically to: jcohen@bigsky.net or mailed to Kelseya Editor, 10350 Lakewood Place, Lolo, MT 59847.

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; Summer—June 10. Please send web items to our webmaster concurrent with these dates.

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