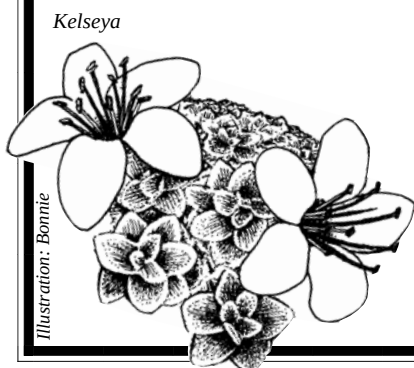




Kelseya

Newsletter of the Montana Native Plant Society

www.umt.edu/mnps/

NATIVE PLANTS AND AGRICULTURE...CAN THEY CO-EXIST?

by Helen Atthowe

My name is Helen and I'm a farmer—a confession when discussing my other passion, native plants, with conservation biologists. One calls my 30-acre organic farm a "sacrifice area!" Indeed, many conservationists have uncritically accepted the idea that land must be sacrificed to "feed the world." Clearly, it would be selfish to starve millions in order to preserve biodiversity. But cropland, pasture, and rangeland make up about half the surface of the United States. What happens on these lands impacts native habitat and to some extent even the most well managed nature preserves. What if we could modify the design of agriculture to more

closely mimic and work in concert with the natural ecosystems of which individual farms are a part? Recently there has been increased interest in ways to reconnect agriculture with the preservation of natural habitats. The 2002 Farm Bill provides some major financial incentives to enhance on-farm habitat for native plants, insects, birds, fish, and other wildlife. Montana implemented programs through the Environmental Quality Incentives Program (EQUIP) that pay producers to transition to organic farming. Comments are now being taken on the Conservation Security Program (CSP). Dave White, NRCS in Bozeman, and Senator Conrad Burns need to hear that we wholeheartedly

support the CSP with its incentives to reduce pesticides, practice organic soil management, and enhance wildlife habitat. But they also need to hear that we do not want farmers/ranchers to receive CSP payments to plow up native grasslands in Montana (this is not an issue in most states since they have little native grassland left). For more information on the Conservation Security Program and other organic farm promoting and native plant and wildlife enhancing programs in the 2002 Farm Bill, visit www.nrcs.gov/programs/farmbill/2002/products.html.

Why the new interest in combining agriculture and conservation?

(Continued on page 8)

DR. RUMELY HONORED BY MNPS

John H. (Jack) Rumely, Professor Emeritus from Montana State University (MSU) received a Special Achievement Award from the Montana Native Plant Society (MNPS) at the Annual Meeting on June 21, 2003. The Special Achievement Award is given to those who have made significant contributions to promoting the goals of the Montana Native Plant Society.

Dr. Rumely received the award for the contributions he has made toward expanding the knowledge of native plants while teaching botany and other classes to thousands of students for 32 years, and serving as the Herbarium Curator for over 15 years, at Montana State University. MNPS Secretary Patrick Plantenberg, a former student of Dr. Rumely, presented the award on behalf of all his former students and MNPS. Dr. Rumely was an excellent teacher who influenced many students to pursue plant-related careers during his tenure at MSU. Dr. Rumely says the highlight of his career was developing and teaching his agrostology (i.e. the study of grasses) class.

Dr. Rumely developed a special relationship with the range science students in the College of Agriculture and participated in their annual range field trips throughout the western United States. Dr. Rumely, an excellent botanical artist, did the plant

illustrations for *Vascular Plants of the Pacific Northwest, Part V: Compositae*. The illustrations were also used in *Flora of the Pacific Northwest*.

(Continued on page 6)



Dr. John Rumely received a Special Achievement Award, presented by Pat Plantenberg, at the Annual Meeting of the MNPS.



President's Platform

Betty Kuropat



I knew summer would fly by this year. I didn't plan to miss it altogether. But, it's fall and I missed most of it. The national forest districts I work on had over 100,000 acres of forest burned in the last 2 months and the fires are not out yet. I'm not a firefighter, but fires have consumed my summer along with the dead wood and forest plants. Fire suppression and the associated rehabilitation on large fires is amazingly complex.

I'm so glad I went to the Annual Meeting at Birch Creek in June. It was great; so well organized. The wonderful field trips and programs featured the discoveries and trials of the Lewis and Clark Expedition. That was one of the few weekends I spent enjoying plants and friends. A tremendous thank you goes to the Calypso Chapter members who pulled together to pull it off. Good job!

Artemisia Chapter is already busy planning next year's meeting near Redlodge.

The fall board meeting is scheduled for November 1 in Helena. We meet at the Lewis and Clark Library from 10 a.m. to 4 p.m. Everyone is welcome to attend. If you have ideas for projects, talk with your board representative to get funding requests submitted. Representatives are to get funding requests to me by October 1. I will send them to the board members to review before the meeting.

I hope you are enjoying the rain and smoke-free skies as much as I am. Have a great fall.

Betty can be reached at 2688 Witty Ln. Columbia Falls, MT 59912 406-892-0129 e-mail: kuropat@bigsky.net

The "10 Most Desired" Native Plants Poster

...a small grant report

The Montana Native Plant Society awarded a small grant for \$500 to help support the printing of the "10 Most Desired" native plants posters for the Missoula Valley. Other supporting partners included the Missoula County Weed District, Montana Fish, Wildlife & Parks, Bureau of Land Management, Lolo National Forest, Plum Creek, and the Montana Department of Natural Resources. The purpose of the "10 Most Desired" native plants poster is to raise awareness of the importance of desirable native vegetation in the surrounding open space areas in the Missoula Valley. The poster has been used in conjunction with the "10 Least Wanted" noxious weeds poster that has already been published.

The native plant poster has been distributed to the government agencies listed above, at educational booths and seminars, in Missoula County schools, and at the Western Montana Fair. As a result, the public has become more informed on the identification of 5 native grasses and 5 native wildflowers that are dominant in the Missoula Valley and has also gained a greater appreciation for the native plant communities associated with local grasslands.

I would like to thank Peter Lesica and Steve Shelly for the pictures they donated for the poster and the Montana Native Plant Society for their support.

Marijka Wessner

Flora of Discovery Plant Demo and Contest

In the spirit of re-acquainting themselves with plants well-known, and the chance to learn a new species, throngs of plant enthusiasts could be seen walking the labeled plant demonstration trail before and after meals and at various times during the Annual Meeting in June. Some species of note included mountain snowberry (*Symphoricarpos oreophilus*), pallid paintbrush (*Castilleja pallescens*), tall pussytoes (*Antennaria anaphaloides*), and foothill fleabane (*Erigeron corymbosus*).

As usual, folks were shy about entering the contest. However, a few brave souls did step up to the line in three categories: children, adult non-professional, and adult professional. The winners in that order were: Amy Bump (with Daisy McGarverich a close second), Rebecca Hanna, and Kathy Lloyd (with Mike Young close on her heels).

Volunteers for next year's plant demo/contest are needed, as are

your ideas on how to make the event more fun and educational. Please send me your comments.

H. Wayne Phillips
406-453-0648, mtwayne@juno.com



Amy Bump...a contest winner!

WELCOME new members!

Paul Alaback, Julia & Ross Bruner, Carol Buchan, Sarah Dwiggin, Peg & David Engel, Ann Franke, Marie McAlear, Molly Pratt, Brian Reid, Terry Rick, Allison Robbins, Joan Schmidt, and Sally Tibbs.

Your participation and support are important to us! Please contact your chapter representative with any ideas or suggestions you may have.

Montana's National Forests ...Natives and Weeds

As you read this, all nine of Montana's National Forests are in the process of revising their Forest Management Plans. Forests nationwide are required to go through this process every ten years, and because of the amount of time required for the revision process, its effects will remain in place for at least the next fifteen years.

Why should this matter to Montana Native Plant Society members? Forest Plans guide management of noxious and non-native invasive plants, a significant issue from the perspective of native plant conservation.

The Forest Service is aware of the dangers posed by these weedy invaders. Forest Service Chief Dale Bosworth recently identified the spread of noxious weeds as one of the "four great issues facing forest lands."

The Forest Service publication *Stemming the Invasive Tide* states: "The problem of noxious weeds and non-native invasive species threatens every aspect of ecosystem health and productivity.... The increasingly devastating effects include reducing biological diversity, impacting threatened and endangered species and wildlife habitat, modifying vegetative seral stages, changing fire and nutrient cycles, and degrading soil structure."

Weed seeds are transported by wind and water, animal fur, feathers and feces, but primarily by people. By far the greatest vector for spread is a motorized vehicle—cars, trucks, ATVs, motorcycles, and even snowmobiles. A single vehicle driven several feet through a knapweed site can acquire up to 2,000 seeds, 200 of which may still be attached after 10 miles of driving (*Montana Knapweeds: Identification, Biology and Management*, MSU Extension Service.) Off-road vehicles are designed to—and do—travel off-trail, disturbing soil, creating weed seedbeds, and dispersing seeds widely.

The roadless lands of our national forests, however, are relatively free of non-native invasive plant species, and so serve as both a refugium for, and a reservoir of, native plant spe-

cies. A 2003 University of California, Davis study shows that "roadless habitats have multiple benefits, not just for the environment but also for the economy and our quality of life. They are not only refuges for biodiversity, but also protect against non-native weed invasions, which are costly for ranchers and public agencies."

The Forest Service is responsible for the prevention, control and eradication of noxious weeds in national forests. The most effective way to control weeds is to prevent their introduction by limiting motorized use to designated routes outside of roadless areas.

Take time to help stop the spread of noxious weeds. Let your Forest Supervisor know that keeping roadless areas free of weed-spreading ORVs will best prevent weed introduction and preserve native plants, thus benefiting every aspect of forest health. "The natural vegetative communities that have evolved here are the key to all life in our forests...the basic fabric that holds the ecosystems together" (*Weed Pocket Guide*, Greater Yellowstone Coordinating Committee).

You can find out what's happening with revision of the Management Plan in your national forest by visiting its web site at [http://www.fs.fed.us/r1/name of your forest](http://www.fs.fed.us/r1/name%20of%20your%20forest), or by calling your ranger district or Forest Supervisor's office. Get on your National Forest's mailing list to receive up-to-date information on its plan's progress, times and dates for public hearings, and opportunities to comment. Others with less respect for our natural heritage will voice their opinions—make sure that yours is heard as well!



Diffuse knapweed (Centaurea diffusa) produces thousands of seeds that are dispersed by motor vehicles and other means.



GET INVOLVED!!

WHO TO CONTACT

Beaverhead-Deerlodge NF

Thomas K. Reilly
420 Barrett Street, Dillon, MT 59725
(406) 683-3900 Fax: (406) 683-3855

Bitterroot NF

Dave Bull
1801 N. 1st St., Hamilton, MT 59840
(406) 363-7121 Fax: (406) 363-7159

Custer NF

Nancy T. Curriden
1310 Main St., Billings, MT 59105
(406) 657-6200 Fax: (406) 657-6222

Flathead NF

Cathy Barbouletos
1935 3rd Ave. E., Kalispell, MT 59901
(406) 758-5200 Fax: (406) 758-5363

Gallatin NF

Becky Heath
Federal Building, 10 E. Babcock Ave.,
Box 130, Bozeman, MT 59771
(406) 587-6701 Fax: (406) 587-6758

Helena NF

Thomas Clifford
2880 Skyway Drive, Helena, MT 59601
(406) 449-5201 Fax: (406) 449-5436

Kootenai NF

Bob Castaneda
1101 Highway 2 W., Libby, MT 59923
(406) 293-6211 Fax: (406) 293-7710

Lewis and Clark NF

Vacant
P.O. Box 869, 1101 15th Street N.,
Great Falls, MT 59403
(406) 791-7701 Fax: (406) 761-1972

Lolo NF

Debbie Austin
Building 24, Fort Missoula
Missoula, MT 59804
(406) 329-3804 Fax: (406) 329-3795

2004 Noxious Weed Calendar

The annual noxious weed calendar is now available. Called *Pulling Together to Implement the Montana Weed Management Plan*, the calendar features examples of how people can work together to help slow the spread of invasive plants. The calendar includes images by several MNPS members. Contact your chapter representative or local weed district to get your copy.

PUBLICATIONS

Available from MNPS

The third edition of the *Source Guide for Native Plants of Montana* is now available. The cost is \$6.00. Send a check made out to MNPS to: MNPS Publications, 1270 Lower Sweet Grass Road, Big Timber, Montana 59011. The cost will cover postage. The guide lists 55 sources for over 500 species of trees, shrubs, forbs and grasses. This edition has e-mail and website addresses for many sources and a handy common name index. The guide is a must for home landscapers, native plant gardeners and those involved in restoration projects.

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 the address above to receive any of these publications.

Available from the Flathead Chapter: *Native Plant Gardening and Landscaping References and Recommended Species for Native Plant Gardening in the Flathead*. The packet can be mailed to you for \$2.50. Contact Tara Carolin at P.O. Box 382, West Glacier, MT 59936, call 406-888-7919 or e-mail: Tara_Carolin@nps.gov

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: drakekath64@msn.com to order.

Visit the MNPS website at www.umt.edu/mnps to download in pdf format *Weeds Listed as Noxious by Montana Counties*, a list of weeds that are targeted by each county; *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.

MOSS BOOK REPUBLISHED

A classic of bryological literature, *Mosses: Utah and the West* by Seville Flowers was first published in 1973 by Brigham Young University Press. The book made a substantial and original contribution to the knowledge of the mosses of the western United States. A monumental work, it provides keys, illustrations, descriptions and information on geographical distribution, habitats, and offers detailed observations by Flowers. Before the author began his extensive bryological research, Utah was considered to have a relatively small and uninteresting moss flora because of its generally low rainfall. However, the book treats 256 species in 77 genera and 18 families, a large proportion of which were discovered in Utah for the first time by Flowers. The author's skillful illustrations form one of the finest features of the book. Seville Flowers (1900-1968) was a researcher, writer and professor of botany at the University of Utah. For more information see <http://www.blackburnpress.com/moutandwe.html>.

POSTERS AVAILABLE!

If anyone would like copies of the "10 Most Desired" native plants poster or the "10 Least Wanted" noxious weeds poster, please contact Marijka Wessner at (406) 829-4219 or e-mail: weedwoman1@hotmail.com. There are plenty of the posters available and Marijka is willing and eager to distribute as many as possible.

Trails of the Wild Cabinets

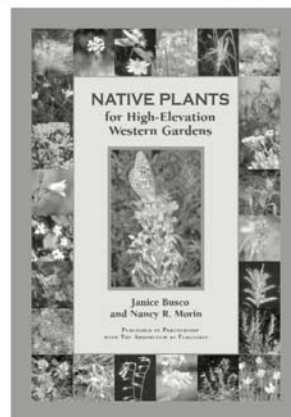
by Dennis Nicholls

Trails of the Wild Cabinets is a guide to 82 hiking trails in the Cabinet Mountains from Bonners Ferry, Idaho to Plains, Montana and includes a brief natural history of the area and several essays. As a special offer to the Montana Native Plant Society, if any member is interested in a copy of the book and orders it online at www.sandpointonline.com (click on the General Store), the publisher (Keokee Books) will donate 20 percent of sales from those identifying themselves as MNPS members back to the Society. Cost of the book is \$14.00 (plus shipping). This offer is good through the end of the year.

NEW FROM FULCRUM PUBLISHING

NATIVE PLANTS

for High-Elevation Western Gardens
by Janice Busco and Nancy R. Morin



ISBN 1-55591-475-6

7 x 10, 250 full-color photos, 368 pages

PB \$29.95

An authoritative guide to 150 species of native plants guaranteed to be low-maintenance successes for home gardeners. Beautiful, full-color photographs accompany all plant descriptions, as well as each plant's natural history, features, and cultivation—including Native American traditional uses.



FULCRUM PUBLISHING
16100 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403

TO ORDER:
(800)992-2908 • FAX (800) 726-7112
ORDERS@FULCRUM-BOOKS.COM

VOTERS TURNOUT IN RECORD NUMBERS!

Unlike the apathy in national and state elections in the United States, the 2003 Montana Native Plant Society (MNPS) elections set all time records for voter turnout. Since 2001, the MNPS Board of Directors has offered a \$100 prize to the chapter with the largest percentage of voters. As a result, the number of voters has increased from 33 in 2001 to 83 in 2002 to 139 in 2003, out of the total membership of 636. This equals almost a 22% turnout for the non-contested elections for President, Treasurer and Western Representative-at-large. Voter turnout increased by 67% in 2003. Incumbent Betty Kuropat of Columbia Falls, incumbent Madeline Mazurski of Missoula and former Western Representative Dennis Nicholls of Noxon were elected to the offices listed above. Thank you to Betty, Madeline and Dennis for agreeing to serve another two years.

Some highlights of the election reported by the Townsend Electoral College from its election "canvass" follow. Kathy Holte of Outlook cast the first vote—truly a magnificent feat for the U.S. Postal Service. Who says the Highline needs an Interstate? Eastern Montana voter turnout topped Western Montana voter turnout again in 2003—26% to 20%. The City of Missoula, with the largest number of MNPS members, finally had the largest number of votes with 34—congratulations Missoula! Helena was second with 21. Votes were received from 37 different Montana cities and 7 different states and Canada. The Maka Flora Chapter, head-

quartered in Northeast Montana, cast the largest percentage of votes with 38% and Lawrence and Mary Heppner were present to graciously accept the \$100 prize. Congratulations Maka Flora Chapter! The Kelsey Chapter in the Helena area, was second with 34% voter turnout.

In past elections, the most popular stamps on the ballots were floral which should be the case for a native plant organization. However, disappointingly in 2003, the most popular stamp on 26 ballots was patriotic. Bird and animal stamps on the ballots totaled 25 (at least none of the critters on the stamps were herbivores!). MNPS members bitterly complained that floral stamps were not available in 2003. Au contraire! Two dedicated MNPS members searched the plethora (wouldn't that be a great plant name?) of available stamps and found stamps with plants on them. And nine other members used address labels with plants on them to make up for the lack of floral stamps. Good job MNPS members.

Finally, there was one write-in candidate for President from Helena—Jo Lace. MNPS members, trying to stir up interest for a potential challenger in future MNPS elections, organized after the meeting. Drake Barton from Helena was elected as her campaign manager. Her loyal supporters were last seen marching in step out of the Annual Meeting carrying Jo on their shoulders, chanting her campaign slogan—“No New Taxa! No New Taxa!” Imagine what voter turnout MNPS could have if we had a contested election!

See you at the polls next year.

Pat Plantenberg

RepRap from Western Montana

What a pleasure it is to be serving once again with the fine folks of the Montana Native Plant Society. Thanks for your voles. It was a difficult campaign that tested my endurance and though the odds were stacked against me and my opponents were strong, I think the best man won.

Wait a second; did I have any opponents? And I don't actually remember campaigning. Hmmm, did any of you actually even vote for me?

Seriously, I look forward to seeing many of you during the next couple of years, hopefully at the next Annual Meeting if not on a field trip between now and then.

One of the greatest opportunities of my life came my way a little over a year ago when a publisher in Sandpoint, Idaho contacted me and asked if I'd be interested in writing a hiking guide for him. I was and I did and last May we released *Trails of the Wild Cabinets*. See page 4 for all the exciting details.

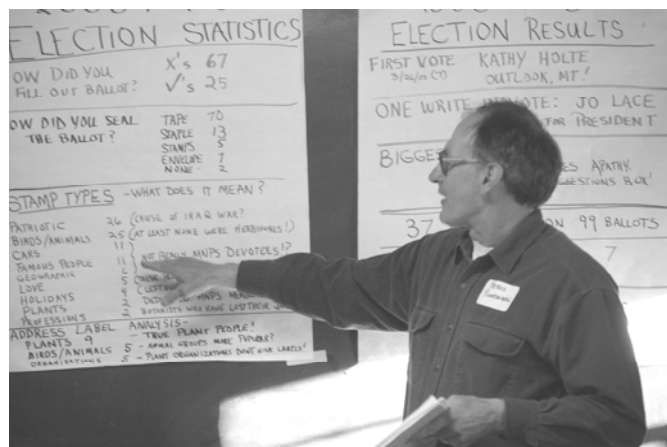
Avista Utilities, a Spokane, Washington-based company that owns Noxon Rapids and Cabinet Gorge dams on the lower Clark Fork River, has been working hard to restore black cottonwood habitat along the river this summer. In the next *Kel-seya* I hope to have a story about their efforts to bring back an important riverside habitat that has disappeared from many places along the rivers of our state.

How were the huckleberries where you live this year? Near Trout Creek, the official Huckleberry Capital of Montana (so declared Ted Schwinden when he was Governor) the berries have not been as good this year as in years past. A hot, dry summer caused the fruits to wither on the bushes. But the thimbleberries (*Rubus parviflorus*) have been pretty good! And ocean spray (*Holodiscus discolor*), a large shrub in the Rose family, bloomed more profusely this summer than I have ever seen it!

I am temporarily disconnected from the electronic world, but can be reached at the address below.

Dennis Nicholls

P.O. Box 1574, Noxon, MT 59853



Pat Plantenberg, MNPS Secretary and sometimes stand-up comedian, presented the now famous and much anticipated election results at the 2003 Annual Meeting.

...Award (Continued from page 1)

Dr. Rumely retired in 1988 and is still collecting plants and helping graduate students at MSU with plant identification. He lives with his beautiful wife Connie in Bozeman near Montana State University. The MNPS received a letter from Dr. Rumely after the meeting in which he said, "I thank the Montana Native Plant Society for the teaching award...Thank you and the MNPS and Betty Kuropat for their continuing activity and leadership on behalf of native plants."

MNPS member Loren Bahls wrote a special tribute to Jack Rumely in the Spring 2000 issue of *Kelseya*.

Pat Plantenberg



Connie Rumely attended the awards ceremony at the Annual Meeting.

Website Promotes Natives

The website www.plantnative.com provides information about using native plants in landscaping. MNPS received an inquiry from PlantNative and the landscaping information available from MNPS chapters will soon be listed on PlantNative's website. PlantNative is a collection of individuals dedicated to moving native plants and naturescaping into mainstream landscaping practices. They believe this promotes biodiversity, preserves our natural heritage and enhances livability. Their goal is to work with nursery owners, landscape professionals and consumers to increase both the supply and demand of native plants, and thereby reduce plant costs through economies of scale.

Shoot the Bull with Meriwether Lewis

On Saturday, September 27th folks in northwestern Montana will be treated to an evening by the campfire with Meriwether Lewis—that's right, the co-captain of the Corps of Discovery. These days, he happens to also go by the name of Wayne Phillips, a former Forest Service ecologist from Great Falls and past-president of the Montana Native Plant Society.

Wayne will join with the Bull River Outdoors Programs for a season-ending presentation at the Historic Ranger Station on the East Fork Bull River north of Noxon. There will be a campfire, hot drinks, snacks and (hopefully) live music all beginning at 7:00 p.m. Montana time. Everyone is asked to bring his or her own chair or blanket for sitting.

For many years Wayne has researched and studied the life of Meriwether Lewis and the journey that took him, Captain William Clark and their expedition from St. Louis to the mouth of the Columbia River on the Pacific coast and back. He specializes in the native plants they collected on their epic trek and shares this knowledge as though he is Captain Lewis telling the tales himself. The performance is enhanced by the period costume in which Wayne will be dressed.

That day will begin for Wayne in Sandpoint, Idaho when he presents a program to members of the Kinnikinnick Chapter of the Idaho Native Plant Society at 10:00 a.m. Idaho time.

Everyone is invited to this magical evening by the fire. Please feel free to bring your favorite foods and beverages (and a trash bag to pick up after yourself). To get to the Historic Ranger Station turn north off Montana Highway 200 at milepost 10 onto Highway 56 and go 8 miles to the East Fork Bull River Road. Travel about 2 miles to the ranger station, bearing right at the only fork along that stretch of the road. For more information call Susan Hillstrom or Kari Dameron at 406-847-2462 at the Cabinet Ranger District of the Kootenai National Forest.

Dennis Nicholls

Wayne Phillips Receives Outstanding Service Award

Wayne Phillips of Great Falls was the 2003 recipient of the Outstanding Service Award presented at the Annual Meeting in June. Wayne's commitment to Montana's native flora and his untiring efforts to educate the public about the importance and value of native plant communities were among the long list of accomplishments cited as Wayne received his award. Wayne is the author of three plant-related books: *Central Rocky Mountain Wildflowers*, *Northern Rocky Mountain Wildflowers* and *Plants of the Lewis and Clark Expedition*. He has traveled extensively throughout Montana and the region presenting programs on native plants and the plants of the Lewis and Clark Expedition, and teaching various plant-related classes. Wayne served as president of the Montana Native Plant Society from 1997-2001 and founded the now famous Plant ID Contest held each year at the MNPS Annual Meeting. His beautiful plant photographs have helped to accurately depict Montana's flora and his enthusiasm, poems, songs and stories about native plants are legendary. Wayne was presented with a beautiful color drawing of *Mimulus lewisii* (Lewis's monkey-flower) done by Missoula botanical artist Nancy Anderson, and received a standing ovation from the large crowd.

Kathy Lloyd



Wayne Phillips received the Special Achievement Award and a painting by artist Nancy Anderson.

DID NATIVE AMERICANS HAVE USE FOR ALGAE? by Johan F. Dormaar

Since algae are common and often found in surface waters, it would be unusual if Native Americans, who learned about the plants in their environment through general trial and error and through communication with other tribes, never made use of the omnipresent algae. Nevertheless, while there are many books (e. g., Moerman 1998) describing the use made by Native Americans of plants, there is precious little said about the use that was made of algae.

Some creeks in the Sweetgrass Hills, Montana, go underground as summer progresses, leaving small red pools in the now dry streambed. Naturally, this led pre-contact inhabitants of the area, not knowing the cause for the red colour, to think that these were sacred pools. The colour red has special meaning all around the world. For many people it is, in fact, a sacred colour (sacred red wine; sacred red earth; sacred red ochre).

Vegetative cells of the ubiquitous green alga *Haematococcus lacustris* (*H. pluvialis*) are motile with two flagella. However, when these cells are in a stationary (akinetes) condition, they form bright-red crusts on the rocks. Encystment and astaxanthin (a red-orange pigment) production is induced by, among others, low nitrate and phosphate and high temperature or light. It appears that astaxanthin protects the alga from adverse environment changes, such as UV-light photo-oxidation (see Gerber and Häder 1994) and evaporation of the water pools in which it lives (Boussiba and Vonshak 1991).

Gilmore (1914) noted, "Without specification of genera or even orders it is sufficient to say that a green stain for decoration of implements made of wood was obtained from masses of the green aquatic vegetation popularly known as 'pond scum' or 'frog spit.' The green substance used by the people of the tribes for the purpose of making a green stain, obtained from sluggish streams and ponds, doubtless consisted of colonies of *Protococcus*,

Ulothrix, *Chaetophora*, and *Spirogyra*."

Similarly, McClintock (1910) noted that, "a green paint came from the scum, consisting of green algae such as *Spirogyra* and *Cladophora*, in sloughs in the vicinity of the Sweetgrass Hills." Later, Canon Middleton observed that green was obtained from coloured mud or from plants growing near lakes. The Blackfoot names *Kinaow-oghkee-kimino-was* or 'Blood Green-water Lake', and *Peigani-oghkee-komino-was* or 'Peigan Green-water Lake', for lakes located in or near Chin Coulee, Alberta, may have referred to algae growth in the water.

...REFERENCES available by request.

Johan F. Dormaar, Agriculture and Agri-Food Canada, Research Centre, Lethbridge, Alberta T1J 4B1

2004 Small Grants Program

The Montana Native Plant Society (MNPS) announces the ninth annual Small Grants Program for research, study, and appreciation of Montana's native plants. Grants up to \$1000 will be awarded in 2004 to fund projects or studies supporting conservation of native plants in Montana.

The grant competition is open to residents of Montana or members of MNPS. The deadline for proposals is January 31, 2004. The purpose of the MNPS Small Grants Program is to stimulate research, conservation, and educational activities that help foster an appreciation for Montana's native plants and plant communities. Project or study proposals must pertain to native plants of Montana. Preference will be given to proposals expected to generate data or public support for conservation of native plants in the wild. The winter issue of *Kelseya* will include a grant application and complete proposal details.

Anyone interested in serving on the Small Grants Committee or requesting additional grant information should contact committee chair Cathie Jean by e-mail at: cjean@montanadsl.net.

Cathie Jean

NATIVE PLANT GARDEN TOUR

It was surprising and very encouraging for the organizers of the Clark Fork Chapter's Native Plant Garden Tour to have over one hundred people attend our garden tour.

On July 26th, we featured five very beautiful and unique gardens that revealed ways to conserve water, create habitats for insects and birds, and preserve a little of the natural Missoula Valley.

The first garden on the tour was the Montana Native Plant Garden on the University of Montana campus, with each caretaker there to explain his or her distinctive habitat. Klaus Lackschewitz and Sherman Preece established the garden in 1967 with the goal of educating students and the public about the wealth of garden-worthy plants growing wild in the surrounding areas and encouraging them to learn about the growth habits of native plants in a horticultural setting. This garden represents nine Montana habitats from wet meadow to xeric steppe, with approximately 300 plant species. Volunteers from the Clark Fork Chapter now care for the garden.

Other gardens featured in the tour included a professionally designed, low maintenance garden that blends in beautifully with the neighborhood; a rescue garden that is a grassland made up of salvaged plants from future construction sites; a Backyard Wildlife Habitat, certified by the National Wildlife Federation; and a penstemon and Rocky Mountain plant garden designed to attract wildlife and favor plants that thrive in sun and dry summers.

All gardens were outstanding in beauty and creativity. This event introduced many people to the splendor of native plants.

A special thanks to all the volunteers and people who shared their gardens. Thank you Mitzi Bertane, Jean Parker, Dana D'Andraia, Catherine Gilbert, Lois Puckett, Peter Stickney, Sheila Morrison, Archie McMillan, Jean Pfeiffer, Chin Wan Reinhardt, Julie Norris and Brian Copper, Jeff Gardner, Marilyn Marler and David Schmetterling, Michael Young and Dyan Mazurana.

Kelly Chadwick

...AG (Continued from page 1)

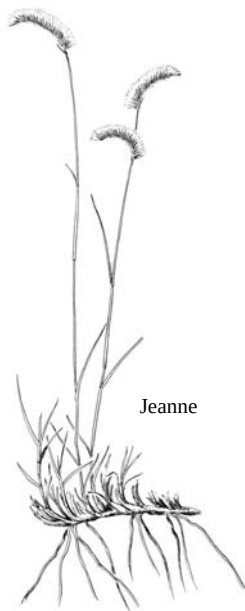
Agriculture is changing. Organic production acreage is on the rise. Organic farms do not use synthetic pesticides. Reduction in pesticide use has been shown to improve native habitat on-farm and in areas impacted by agriculture. Several studies report greater numbers of upland birds on organic compared to conventional farms. However, some farmers and researchers are looking beyond organic for a more ecological "systems approach" to conventional farming methods. The goal is agriculture that more closely mimics natural systems, including reduced tillage, increased species and genetic diversity, closed nutrient cycles, and more complex habitat.

When farmers till up native grasslands to produce crops, soil organic matter levels and microbial populations decrease. In grassland soils, huge drops in soil organic matter (from 9% to 4%) have been recorded during the first years following sod busting. Once soils have been brought into cultivation, exposed bare soil between crop plants and between cropping seasons (winter fallow) creates nutrient leaks, or leaching of mobile nutrients (like nitrate-nitrogen) that were formerly recycled by permanent vegetative cover. This nitrate can end up in surface water and riparian areas. Addition of organic residues helps overcome some of the negative effects of tillage. However, in a central California study, cultivation and cropping significantly reduced soil organic matter when compared to an unfarmed grassland, even with high inputs of organic residues from winter cover crops and composts.

Tillage diminishes habitat for many organisms beneficial to soil and crop health, including earthworms, spiders, insects, and soil microorganisms. Permanent groundcovers (specifically perennial grasses forming thick sod layers) support higher densities of ground-dwelling predators such as spiders and beetles. Undisturbed, perennial grass habitats provide stable microclimates for beetles and spiders and improve their ability to survive winter. "Beetle banks" are raised beds of mixed per-

ennial grasses created on agricultural borders that increase predator carabid beetle populations within cropping systems. Unfortunately, they do not decrease crop pest populations (even though predator beetle populations increase), except in areas of the cropping system that are closest to the perennial grass-covered beetle banks. Why not design native grasslands into and throughout cropland systems?

Parasitoid populations also increase with vegetation diversity and reduced tillage. Parasitic wasps and flies lay eggs in crop pests and their young feed on the pest after hatching, a little like invasion of the body snatchers. Populations of fly and wasp parasitoids increase in more diverse habitats because they provide season-long pollen and nectar sources. The availability of season-long parasitoid food plants translates into higher parasitism rates in crop systems. The closer pollen and nectar plants are to crops, the higher



Rhizomatous native grasses such as blue grama (Bouteloua gracilis) provide a living mulch and help to control weeds while adding nutrients to the soil. Such an integration of native plants with agriculture can help preserve native habitats.

the parasitism of crop pests. Researchers have begun to study how "islands" or "alleyways" of native plant communities can bring predators and parasitoids into cropping systems. There is also evidence that providing habitat for native bees within cropping systems can significantly enhance crop pollination. Increasing populations of predators, parasitoids, and pollinators may be

one way that preserving native plant borders alongside and within cropping systems can provide economic benefit for farmers.

Permanent soil cover and reduced tillage are also associated with disease suppression in agriculture. Pythium root rot suppression was compared in undisturbed and cultivated soils. Undisturbed forest soils were 82% Pythium suppressive. Newly cultivated soils were only 31% suppressive. In soils that had been intensely cultivated for annual cropping over an extended period, Pythium suppression dropped to 7%. Minimum tillage and borders of undisturbed native vegetation might help to suppress diseases as well as insect pests.

Managing permanent soil cover without a large yield reduction is the challenge, especially for farms that produce annual grains and vegetables and rely on extensive and repeated tillage to diminish weeds and manage water. As soil organic matter levels increase, so does soil water-holding capacity. Studies at Montana State University indicate that after years of drought, better wheat yields are coming from no-till fields. However, soil building takes time and permanent vegetation may "steal" water from crops in the short term.

One way to mimic natural systems in annual crops is to design in a semi-permanent vegetative cover within the crop. "Living mulches" have been used successfully in vegetable production to control weeds and provide organic matter and nitrogen to the soil. Living mulches are also used in perennial crops such as orchards and vineyards. Another way to mimic natural systems is being evaluated at the Land Institute in Salina, Kansas. The Land Institute is using tall-grass prairie as the genetic starting point from which to select for perennial grains to be part of a "perennial polyculture" production system. This system is 50 or more years away from economic practicality. But creative farmers and ranchers, working with people who care about native plants and the organisms they support, can look at native plant communities to find plants and patterns for agriculture that can be implemented now. ...REFERENCES available by request.

ARTEMISIA CHAPTER

Leslie Marty 445-9178

CALYPSO CHAPTER

Catherine Cain 267-3362

CLARK FORK CHAPTER

Saturday September 20, 11:00 a.m.

Fire Ecologist Bob Keane will show us the Forest Service's Snow Bowl Whitebark Pine Restoration Project. Meet at the Missoula Fire Science Lab on West Broadway. Turn left just past the new blue building and go back around to the east. Bring water and a lunch. For more information call Bob (329-4846).

Thursday, October 9, 7:30 p.m.

Susan Winslow a biologist with the Natural Resources Conservation Service's Plant Materials Center was instrumental in developing the NRCS booklet on landscaping with native plants. Come listen as Susan tells us how to make "The Big Switch: Going Native in a Tame Landscape". Rm L09 Gallagher Business Bldg., UM Campus.

Thursday, November 13, 7:30 p.m.

Everyone is fascinated by orchids, but no one more than MNPS past president Wayne Phillips. Wayne has slides of all of Montana's wild orchids and stories to go with them. His talk on "The Orchids of Montana" has been a favorite with other chapters, now it's our turn. Rm L09 Gallagher Business Bldg., UM Campus.

Thursday, December 11, 6:30 p.m.

Our annual Christmas potluck will be held at the Open Way Center (formerly Wild Ground Center), 702 Brooks just north of the Rose Garden on the southeast corner of Brooks and Franklin. Bring plates, utensils and a dish to share. Don't forget to bring a few of your favorite slides from the summer.

Thursday, January 8, 7:30 pm.

Joe Elliott has been studying the mosses of Montana for four decades; few people have spent as much time weaseling around in the undergrowth. Now he's going tell us about "Mosses: Think Small." Rm L09 Gallagher Business Bldg., UM Campus.

EASTERN MONTANA

Jennifer Walker 538-9054

FLATHEAD CHAPTER

All Flathead Chapter meetings are at the Montana Logging Association Building, 2224 Highway 35, east of Kalispell, across and just east of Hooper's Nursery. The conference room door is at the back of the building. Everyone is invited to the 5:30 general meeting. Programs start at 7:00. Call Rachel Potter at 892-2446 for more information.

Saturday, September 27

An all day hike with plant ecologist Maria Mantas. Destination to be determined, but somewhere in the beautiful mountains of the Flathead. Call Maria for more details at 862-3044.

Wednesday, October 15, 5:30 p.m.

Get involved with the Flathead Chapter of the MNPS. Join us for a season-starting "potluck social" and help plan projects and educational programs for the year. Learn about native plants as you are helping to protect them. Call Jen Asebrook for details at 863-9630.

Wednesday, November 19

Tara Luna will give a slide show on "Rare and Endangered Plants of Hawaii." Come to the Montana Logging Association Building, 2224 Highway 35, east of Kalispell, across from and just east of Hooper's nursery. The conference room door is at the back of the building. Everyone is invited to the 5:30 general meeting. The program starts at 7:00.

Wednesday, December 17

"Annual Christmas Potluck." Call Jen Asebrook for details at 863-9630.

KELSEY CHAPTER

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

Thursday, September 25, 6:00 p.m.

The Kelsey Chapter will kick off the season with a "potluck and planning session" at Drake and Kathy's house. Call 449-6586 for directions and info.

Saturday, December 6, 6:00 p.m.

The annual "Holiday Potluck and Slide Show", hosted by Nancy & Ray Breuninger at 614 Hollins in Helena. Bring your own table service, a dish to share, some of your favorite plant slides, and join the fun!

MAKA FLORA CHAPTER

Rebecca Kallevig 488-5455

VALLEY OF FLOWERS

Valley of Flowers Chapter meets the third Monday of each month. Programs will begin at 7:00 p.m. in Room 108 (on the first floor using the door at the bend of the "L" of the Agbioscience Building on South 11th. Parking is available in the lot to the north of the building (they do not require a permit at night). For info call Joanne Jennings at 586-9585.

WESTERN MONTANA

Dennis Nicholls

Saturday, September 27, 7:00 p.m.

"Plants of the Lewis & Clark Expedition" with Wayne Phillips. Meet at the Historic Ranger Station on the East Fork Bull River north of Noxon.

Saturday-Sunday, September 27-28

"Fall Mushroom Foray" with Larry Evans, sponsored by the Glacier Institute. Call 755-1211 to register.

Rare Penstemon Found at Annual Meeting

It's a little hard to imagine now, but it was cool and cloudy for our Saturday field trip at the MNPS Annual Meeting—perfect weather for a hike. We went to the foothills of the Pioneer Range and hiked up Cattle Gulch, a deep notch between tilted limestone walls. First we had to wade Canyon Creek. Susan Winslow ran across first and inspired the rest of us. When we got beyond the walls, we humped it up the slope and walked back along the ridge top. It was a good day for flowers too. We saw nearly 100 species in bloom, including five species of milkvetch (*Astragalus*) and five species of *Penstemon*. One of these was *Penstemon lemhiensis*, a previously unrecorded population of this rare plant known only from southwest Montana and adjacent Idaho. We got back without seeing any cattle or any rattlesnakes. E-mail Anne Garde at mslaannie@hotmail.com if you want a species list from the trip.

Peter Lesica

Annual Exploding Car Battery Hike Strikes Again

We thought we had it made. The day had gone perfectly. Beautiful weather. Lots of plants. Big old growth cedar and hemlock. Good friends and fellow native plant enthusiasts out for a good time in Ross Creek.

And no vehicle problems.

But Erich Pfalzer became the unsuspecting victim of this summer's fifth annual Exploding Car Battery Hike jinx. As he approached Highway 200 at Bull River junction at the end of the day, his car inexplicably died and had to be pushed to the side of the road, then towed to his home in Trout Creek.

The ghost of field trips past still haunts us here in the Lower Clark Fork Valley.

It all began in 1998 when my suburban died on a mountain road high up Marten Creek. When Rodd Gallaway, Pete Lesica and I tried to restart it, the battery exploded, spraying Rodd and Pete with battery acid. They suffered no injuries but their clothing has slowly disintegrated over the years. Rodd still wears the tee shirt to our hikes as a grim reminder of that day. Pete stopped wearing the shorts because they were falling off his skinny hips.

Last year a visitor from Missoula along for our hike across the top of Government Mountain incurred not one, but two flat tires. In the two years before that we had no vehicle mishaps, but unusually heavy spring snows in 2001 prevented us from reaching our hike destination that summer. We found it difficult to botanize Berray Mountain that year because of up to 5 feet of snow still on the ridges in late June.

This year we headed for the Grove of Ancient Cedars in Ross Creek a little ways west of Bull Lake. More than 20

people showed up for the excursion with Pete Lesica and we eventually tallied more than 120 plants, including a dozen ferns. Strict rules were established at the start of the hike. We would only tally plants in flower. Turns out, though, that some of us did not mind stretching the definition of a flower to include a bud just about ready to open and seed heads if even just one withered petal still clung to the flower stalk.

Nonetheless, most of the plants we recorded were truly in full bloom and we found it remarkable to encounter such a variety of species in what we thought would be a fairly homogenous environment. The Ross Creek Cedars harbor the largest known western redcedar (*Thuja plicata*) in the state, and what might also be the largest living tree in Montana. Many individual trees in this grove exceed 10 feet in diameter and reach 200 feet in height.

Our efforts to reach the South Fork of Ross Creek Falls, despite my expert guidance, were fruitless. I couldn't remember exactly where they were, so we settled for a creekside break along a magnificent slot canyon the stream has carved through sedimentary rock over the past 10,000 years.

Once we returned to the parking area and prepared to go our separate ways, we acknowledged the day had been flawless. Then there was Erich, stranded on Highway 200 until his wife arrived with a tow cable. Several of us noted the common denominator in all of these hikes has been the presence of our fine botanist friend, Pete Lesica. We love having him with us each summer for a hike, but we are learning to bring mechanics, tools and spare parts on every one of these field trips. Stay tuned for next year's outing. You can bet it will be a doozy.

Dennis Nicholls

Two Fantastic Speakers

In keeping with the Lewis & Clark theme, the 2003 Annual Meeting boasted not one, but two speakers presenting Lewis & Clark material. On Friday night, Dr. Ron Loge gave a Power Point talk titled *Lewis & Clark Explorers, Naturalists, and Physicians*. Dr. Loge has an internal medicine practice in Dillon and a long-standing interest in the Corps of Discovery. He is especially well versed in the medical aspects of the famous journey and related various stories about incidents that occurred as both Lewis and Clark assumed responsibility for the health of their men, Sacajawea, her baby boy Pomp, and Indian tribes they encountered. Rush's pills, a powerful laxative, were frequently employed with dramatic effect(s). Various native plants, such as chokecherry, were also used to treat illness. To Lewis & Clark's

credit, only one death occurred on the long journey. It is now believed that Sergeant Floyd died of appendicitis, and most likely would have died even if he had received the finest medical attention of the day.

Steve Moorehouse, a Lewis & Clark



Steve Moorehouse, in period garb, presented an excellent talk and hands-on demonstration about the tools and clothing of the Lewis & Clark Expedition.

historian and manager at Camp Fortunate, presented a program titled *Camp Fortunate Story of the Lewis & Clark Expedition*. He demonstrated some of the weapons, clothing and tools used on the expedition. Steve gave a thorough and interesting account of how hides were cured and tanned for use in clothing and footwear, and how clothing was made from hides. We also learned that all animals have enough brains to tan their own hides! He presented a detailed account of how the expedition finally found Sacajawea's tribe near Camp Fortunate, and the reunion of Sacajawea with her girlhood friend and brother. Because of Sacajawea, the Shoshone tribe was inclined to assist the Corps of Discovery and helped them obtain horses and a guide to continue the next stage of their journey.

Kathy Lloyd

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, 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:

CLASS OF MEMBERSHIP: See I, II, III, IV below

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 "2/99" your membership expired February 28, 1999. 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 *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

DATE _____

NAME (please print) _____ E-MAIL _____

ADDRESS _____ CITY/STATE/ZIP _____

PHONE _____ NEW MEMBERSHIP _____ RENEWAL _____

STATEWIDE MEMBERSHIP WITH AFFILIATION (check chapter below)

- ___ \$18 I. Individual
___ \$22 II. Family
___ \$35 III. Business/Organization
___ \$300 IV. Lifetime Membership
(one-time payment)

MEMBER-AT-LARGE (check East or West below) or LIVING LIGHTLY (check chapter below)

- ___ Artemisia
___ Calypso
___ Clark Fork
___ Flathead
___ Kelsey
___ Maka Flora
___ Valley of Flowers
___ Eastern-at-large

- ___ \$12 I. Individual
___ \$18 II. Family
___ \$30 III. Business

___ Western-at-large

MAKE CHECKS PAYABLE TO:
Montana Native Plant Society
P.O. Box 8783
Missoula, MT 59807-8783



Canadian subscribers please add \$4.00 to cover mailing costs. Additional donations may be specified for a particular project.

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 *Kelseya*, the newsletter of MNPS, published quarterly. We welcome your articles, clippings, field trip reports, meeting notices, 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. If you send clippings, please note the source, volume/issue, and date. All meeting and field trip notices, field trip reports, articles or announcements should be mailed to *Kelseya* Editors, 314 Travis Creek Rd., Clancy, MT 59634. All items should be typed and if possible put on a 3.5" disk and saved in Microsoft Word or rich text format (rtf.) for a PC. Please include a hard copy with your disk. They can also be sent electronically in the same format as above to: drakekath64@msn.com

Changes of address, inquires 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.**

If you want extra copies of *Kelseya* for friends or family, call the Newsletter Editors, write to the above address or e-mail: drakekath64@msn.com

Visit our website at: www.umt.edu/mnps/ or contact our webmaster Marilyn Marler at: marler@bigsky.net

BOARD OF DIRECTORS

President —Betty Kuropat	Col. Falls	892-0129
Past-president —Wayne Phillips	Great Falls	453-0648
Vice-president —Pattie Brown	Big Fork	837-5018
Secretary —Patrick Plantenberg	Townsend	266-5265
Treasurer —Madeline Mazurski	Missoula	542-0262
Newsletter Editors —Kathy Lloyd & Drake Barton	Clancy	449-6586

Directors At Large

Eastern Montana —Jennifer Walker	Lewistown	538-9054
Western Montana —Dennis Nicholls	Noxon	

Chapter Representatives

Artemisia Chapter —Leslie Marty	Bridger	445-9178
Calypso Chapter —Catherine Cain	Divide	267-3362
Clark Fork Chapter —Marilyn Marler	Missoula	543-6721
Flathead Chapter —Jen Asebrook	Whitefish	863-9630
Kelsey Chapter —Kathy Lloyd	Clancy	449-6586
Maka Flora Chapter —Rebecca Kallevig	Sidney	488-5455
Valley of Flowers Chapter —Joanne Jennings	Bozeman	586-9585

Standing Committees

Conservation —Peter Lesica	Missoula	728-8740
Education —Peter Husby, Kim Goodwin	Bozeman	587-0490
Landscaping/Revegetation —Linda Iverson	Big Timber	932-5840
Small Grants —Cathie Jean	Bozeman	522-9503
Membership —Marijka Wessner	Missoula	327-7856

If you move, please notify MNPS Membership, P.O. Box 8783, Missoula, MT 59807-8783

Montana Native Plant Society

Kelseya Editors
314 Travis Creek Rd.
Clancy, MT 59634

CHANGE SERVICE REQUESTED

© Copyright 2003
Montana Native
Plant Society



Printed on
Recycled
Paper