

Kelseya

Newsletter of the Montana Native Plant Society

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Range Extensions for Two Montana Plants

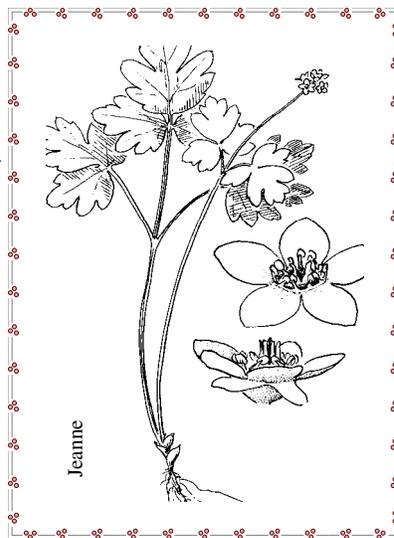
By Matt Lavin & Robyn Klein

The rare plant *Adoxa moschatellina* (Adoxaceae) was discovered this past early June along the Smith River in Meagher County, Montana, near middle Scotty Allen Camp. This species goes by the common name of musk root or moschatel, the latter which is French for town clock. Moschatel is considered a rare plant in Montana. This recent discovery of a population of about 50 individuals was made under a dense canopy of Douglas-fir on a shady north slope along the Smith River in northern Meagher County, a few miles from the southern border of Cascade County. The plants were growing in a dense carpet of mosses and underneath fallen timber and ninebark

and syringa shrubs. According to the Montana Natural Heritage program, this species was known previously from 10 localities in Montana, collections of which came from the Absaroka-Beartooth Mountains, the Madison Range, the Sapphire Mountains, and the Continental Divide area near Basin. These localities include Carbon, Granite, Jefferson, Madison, Park, and Stillwater counties. So this 11th locality along the Smith River in Meagher County represents a north-eastern range extension within

Montana. A small collection of three plants was made to document this find, and these plants have been placed in the plant collection in the Montana State University Herbarium.

The inflorescence of moschatel has four distinct sides, each of which bears a flower that resembles the face of a clock (hence one of the common names). Robyn Klein discovered some plant nursery literature from the UK that suggests that moschatel is a symbol of Christian watchfulness because four of the five tiny, white-green flowers face the four cardinal points and the fifth points up to heaven. Robyn suggests that moschatel leaves have medicinal properties, such as easing digestive upset, and the root is used as a general anti-swelling agent for such things as the treatment of hemorrhoids.



Adoxa moschatellina

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OF MOSS AND MEN REVISITED

By Joe Elliott

Mosses continue to amaze me! They survive extremes of temperature and moisture deprivation and find new ways to excite the nerdy moss enthusiast. I experienced an incipient moss epiphany while Toby Spribille and I were waist deep in water and slowly sinking in the muck of Rattlebone Fen, near Murphy Lake. I have no idea how this fen got its name, but for some reason it seems like

a place that could harbor the bones of Vikings or some of my former college professors.

As we pondered the weighty possibilities of finding *Meesia*, *Catoscopium*, or other rich-fen bryophytes, Toby grabbed a floating blob and remarked on its resemblance to a furry, green, marshmallow. On cursory inspection, we puzzled over whether we had found evidence

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THE FLORA OF DISCOVERY 2003 Annual Meeting

Mark your calendars now for the 2003 MNPS Annual Meeting! Hosted by the Calypso Chapter, the event is scheduled for June 20-22 at the Birch Creek Outdoor Center in Southwest Montana. Lots of great events and field trips are planned. We hope to see you there!



President's Platform

Betty Kuropat



Some plants like fire - a year of post-fire observations

Moose fire burned 71,000 acres in August and September 2001 in western Montana. On Coal Creek State Forest and Flathead National Forest, it burned hot in a drainage with lots of shrubs and trees. In Glacier National Park and on private land, it burned a little patchier, leaving a mosaic of burned and unburned forests and meadows. Last fall most of the ground surface was bare and black where it had been lush and green. In many areas, trees and shrubs were completely burned or charred with nothing left but the stems. In some areas, the trees still had needles, even green ones, but the understory shrubs and forbs were gone. The fire avoided a few areas altogether. Before the fire, it was a bushwhacker's nightmare and now you could easily see and walk through the black forest. Soil and water scientists were concerned about erosion during spring and summer rains because of the lack of plant cover to hold the soil. Most of the resource specialists who have worked on fire recovery and monitoring on other fires thought it would take several years for the vegetation to develop any significant cover. A few of the most severely burned areas were seeded with annual rye to provide quick cover while the natives reestablished in coming years. Within two weeks after the fire grasses started sprouting, but they were sparse.

This spring, many of the trees that had needles last fall were bare. The ground was still black and bare. For a week, as the snow melted fast, there was some erosion as new stream channels formed and water sheeted down the slopes unimpeded by plants. A lot of burned trees had fallen down. Even though there weren't shrubs in the way, the cross-

country walking was already getting tough. I waited for the western larch foliage. They are fire resistant and there are some big, centuries-old ones that could have survived the heat. Many more remained black and dead than I predicted. Hopefully, some of their seeds survived in the duff and will grow to take their place. Meanwhile, in part of the fire area that had been pure lodgepole pine and was severely burned, the Forest Service seeded and the State planted seedlings of western larch and Douglas-fir to get some species diversity when the lodgepole pine comes back like sod. If the larch snags can survive the firewood cutters, they will contribute structure and habitat to the forest for another century or two.

Some of the first "plants" to sprout in the spring were delicious morel mushrooms. They attracted a crowd of harvesters who hiked all over the burned area to collect them for their own meals and for profit. Some people thought the harvesters would trample any plants trying to establish and would carry noxious weed seeds into the fire area. The fire had burned so hot in most areas that it wasn't as productive for morels as people had hoped. As the season progressed, the morels became sparser and they were harder to find amongst the growing green plants.

Slowly, green plants began to show themselves. There were many seedlings that few of us could identify. Steve Wirt and Peter Stickney spent a week doing just that. Shrubs that looked dead began to sprout from their root crowns. Grasses grew thick in some areas. Tree seedlings began to show up. As the summer passed, we saw mass flowering of pinegrass (*Calamagrostis rubescens*), birch-leaf spiraea (*Spiraea betulifolia*), lupine (*Lupinus sericeus*), and beargrass (*Xerophyllum tenax*). Many other species bloomed and it was beauti-

ful. I saw penstemons, pussytoes, arnicas, several hawkweeds (including the weeds), asters, paintbrush, goldenrod, mariposa lily (*Calochortus apiculatus*) and fireweeds. Because of the nutrients and sunlight provided by the fire, and because it was a relatively rainy spring and summer, many of the plants are huge. I saw a wild sarsaparilla (*Aralia nudicaulis*) with leaves 5 inches wide!

Dragonhead (*Dracocephalum parviflorum*), Bicknell's geranium (*Geranium bicknellii*), and ceanothus (*Ceanothus sanguineus* and *C. velutinus*) are all abundant. These species have a special relationship with fire. Their seeds remain viable in the soil for a long time, centuries apparently. When a disturbance like fire exposes and heats the seeds, they germinate and grow, flowering 1-2 years after the fire. After they produce seeds, the dragonhead and geranium plants die. They live on as seeds, waiting for the next fire to prepare the site and heat-treat the seeds. The Moose fire area is home to another biennial with this reproductive biology. It is pink corydalis (*Corydalis sempervirens*), a very rare plant previously known only from Glacier National Park and Kootenai National Forest. Less than 1000 plants have been found so far on Flathead National Forest. Most of those are expected to bloom next summer.

Now, a year after the fire, the morels are gone and the vascular plants have taken over in a big way. There are willow and serviceberry plants 6 feet tall. There are carpets of pinegrass, spiraea and fireweed interspersed with many other species. Tree seedlings are so dense in some areas you can't walk without stepping on them. If you want to hike cross-country in the Moose fire area without bushwhacking, you'd better do it soon.

Barbra Mullin A Tribute

Barbra Mullin, a member of the Kelsey Chapter of the Montana Native Plant Society, passed away on August 15th following a short illness. Barbra worked for the Montana Department of Agriculture for over 24 years and was one of the leaders in invasive plant issues. She dedicated her professional life and a substantial amount of personal time and energy to management of invasive plants. Her leadership in Montana's program as well as in the western U.S. earned her a national reputation. She was an active member of the Western Society of Weed Science and 5 other professional organizations involved with invasive species. She served all her organizations by holding most offices, including president, and was on numerous committees. She fostered the publication of *Biological Control of Weeds of the West*, and



Barbra served on the Governor's Task Force on Wild Medicinal Plants and helped to address an issue the

Montana Native Plant Society was actively pursuing. She presented several programs and field trips for the Kelsey Chapter and was always ready with advice and ideas.

Barbra received numerous awards during her career, including a Fellow Award from the Western Society of Weed Science; Distinguished Service Award from the Agricultural Research Service for the *Biological Control of Weeds of the West* publication; Special Merit Award from Secretary of the Interior Bruce Babbitt for her part in organizing the National Non-native Plant meeting in Denver; a Service Award from the Western Weed Coordinating Committee for her dedication to the organization; and several awards from BLM for her outstanding contributions to invasive plant management. Her hard work, great spirit, laughter and dedication to Montana's native flora will be greatly missed by all of us.

Celestine Duncan with help from
Robyn Klein & Kathy Lloyd

Annual "Exploding Car Battery Hike" now includes flat tires

Hikers and wildflower lovers in western Sanders County celebrated the fifth annual "Exploding Car Battery Hike" in mid-July. In commemoration of that eventful day in 1997, Pete Lesica wore the shorts that were riddled with battery acid when the battery in a suburban driven by Dennis Nicholls blew up. Rodd Gallaway was also sprinkled with the acid, but fortunately no one was seriously hurt.

Memories of that event now generate subdued laughter each year Pete joins the native plant enthusiasts in the Noxon area. The chuckles intensify when Pete wears the holy shorts and Rodd dons the holy tee shirt as sober reminders of that hallowed day.

This year's hike across the summit of Government Mountain along the lower Clark Fork River had drama of its own. A visitor joining us from Missoula suffered a flat tire on the

way up to the start of the hike, then endured a second flat on the way down. His vehicle had to be towed to Trout Creek for repairs.

Vehicular catastrophes are becoming commonplace when we go hiking with Pete.

Between the flats, however, the botanizing was spectacular. Twenty people followed Pete along the 6,000-foot ridge and enjoyed one of the best displays of mariposa lilies (*Calochortus apiculatus*) ever seen in this area. Beargrass (*Xerophyllum tenax*) also had a banner flowering year in the Cabinets. Old clearcuts near the start of the hike were literally carpeted white with towering inflorescences nodding in the gentle breezes blowing in from Idaho's Lake Pend Oreille to the west.

Of the 50-plus species in flower we observed, one of the most fascinating was the diminutive annual Brewer's monkeyflower (*Mimulus breweri*). A tiny little thing barely two inches tall, its dark, maroon-colored flowers are fantastic when viewed through a hand lens. Another small annual that caught our attention was *Gayophy-*

tum humile, a species related to the fireweeds.

Several species of *Penstemon* were noted, including Lyall's penstemon (*Penstemon lyallii*), a number of hawkweeds (*Hieracium* - both native and exotic) were tallied, and we even saw a species of *Osmorhiza* (sweet cicely) that few of us had ever seen before (the species was not determined on the hike).

Though most of the group decided to hike the ridge back to the vehicles, Jill Davies and another guest hiker chose to hike the 4,000 vertical feet down the mountain to Jill and Rodd's house where we all gathered afterwards for a potluck. It was a "descent through hell" Jill vowed to never make again!

As always, the hike with Pete was informative and interesting and we value the time he takes to teach us a little more of the wildflowers that so impressively decorate our part of the Treasure State. Thanks Pete.

For next year's hike we recommend anyone joining us bring four spare tires and an extra battery!

Dennis Nicholls

PUBLICATIONS

Louis F. Henderson (1853-1942) The Grand Old Man of Northwest Botany by Rhoda M. Love. Occasional Paper No. 2, Native Plant Society of Oregon. 2001. Paper \$10, 58 pp. ISSN 1523-8520.

It seems that botany people are particularly fond of reading about the adventures of pioneering plant hunters. It's always fun to hear about remote wilderness areas and previously undiscovered wildflowers. This sense of excitement and adventure can be found in Rhoda Love's biography of Louis Henderson. It is also the story of a man doing what he loved while raising a family and trying to make ends meet in the Pacific Northwest at the end of the 19th Century. Henderson moved to Oregon at age 22. He taught high school in Portland, worked as a real estate agent in Olympia, was professor of Botany at the University of Idaho, raised apples in the Hood River Valley and was curator of the herbarium at the University of Oregon. He did all of this in order to get by, but it seems like he spent nearly as much time doing what he really loved—looking at plants in the wild. He explored much of the Pacific Northwest, including the Cascades around Mount Adams, the Olympic Peninsula, Steens Mountain, the Siskyou Moun-

tains and large portions of central and northern Idaho. Love describes these adventures in detail with quotations from Henderson's many journals and numerous black-and-white photographs, some more than 100 years old. In addition to the narrative of Henderson's life there is a large section of notes containing details such as the origin of his middle name and the exact location of his real estate office in Olympia. There is also a chronology listing the highlights of Henderson's life, a list of the plants that bear his name and a list of his publications (nine of which are on treating crop pests and diseases in addition to those describing new species of plants). I lived in the Hood River Valley for seven years, so I especially liked the descriptions of that area from a century before my time there; it led me to imagine how magnificent it must have been before man's footprint became so large. Love's monograph is a good read for anyone interested in the exploration of the West and a "must have" for history-of-botany buffs.

To order, send a check made out to NPSO to: Occasional Papers, NPSO, PO Box 902, Eugene, Oregon 97440-0902. For more information, log onto: www.NPSOregon.org.

Peter Lesica

Available from MNPS

The third edition of the *Source Guide for Native Plants* is now available. The cost is \$6.00 and you can 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* brochure, and Echinacea Cultivation Information. Please send a SASE to the address above to receive any of these publications.

Available free from the Flathead Chapter: *Native Plant Gardening and Landscaping References and Recommended Species for Native Plant Gardening in the Flathead*. Contact Tara Williams Carolin at P.O. Box 382, West Glacier, MT 59936 or call 406-888-7919 or e-mail: Tara@digisys.net

FLOWERS IN THE SNOW - The Life of Isobel Wylie Hutchison by Gwyneth Hoyle. University of Nebraska Press.

I suggest to those interested in the history of plant collection and Arctic exploration that you try Gwyneth Hoyle's new book. A woman (1889-1982) born into the Victorian Age of restrictions on women's education and independent global travel, strong-willed Isobel Hutchison hiked and collected plants throughout the Arctic parts of the northern hemisphere: Iceland, Greenland, Canada, Alaska, the Aleutian Chain and Pribilof Islands in the Bering Sea. Traveling on foot, skis, snowshoes, dog sled, and

tiny trading boats plowing through ice, she visited areas in the 1930's that mostly male explorers had ventured into, enduring temperatures of minus 40 degrees! She collected plants and seeds for British museums and gardens, which paid her, but poorly, for her efforts; she lectured on her trips, she learned and spoke numerous languages, including those of the native peoples living north of the Arctic Circle. Her travels were interrupted by WW II, but she lived the life many botanists would like to, and it makes great reading to follow her adventures through the words of Ms. Hoyle. One is encouraged to seek out the early writings of Isobel Hutchison; she wrote several books

and was a frequent contributor to *National Geographic*. Happy reading!

Jim Habeck

Compliments of Robyn's Recommended Reading Robyn Klein, editor

A Rum Affair: A True Story of Botanical Fraud. Karl Sabbagh. DA Capo Press, 1999. ISBN 0-306-81060-3. Paperback.

For fifty years John Raven's report of 1948 was suppressed by the British academia. Raven accuses one of

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Britain's leading botanists, Heslop Harrison, of literally planting evidence prior to publishing his discoveries of previously unknown and definitely disjunct species from the Hebrides island of Rum, off the coast of Britain. This true historical mystery of academic controversy is unraveled bit by bit in a very entertaining way. An unusual mystery involving *Carex* species does not come along very often. Quite the romp through British botanical history.

Plant Systematics: A Phylogenetic Approach. Walter S. Judd, Christopher S. Campbell, Elizabeth A. Kellogg, and Peter F. Stevens. Sinauer Associates, 1999. 464 pp. ISBN 0-87893-404-9. Hardcover.

This undergraduate text provides an excellent overview of systematics, phylogeny and the updated taxonomic ordering of plant families now generally agreed upon by most botanists. Chapters on morphology, molecular systematics, evolution and phylogenetic relationships of both tracheophytes and angiosperms makes this text really inclusive and valuable. The last half of the book provides treatments of all the angiosperm orders and families. Really nice!

Wild Berries of the West. Betty B. Derig and Margaret C. Fuller. Mountain Press Publishing Co., 2001. 235 pp. ISBN 0-87842-433-4. Paperback.

A very surprisingly useful photographic guide to ALL berry-type fruit of western plant species. Fruits from barrel cactus to devil's club and bittersweet to soapberries, it's all here. A really nice treatise including some recipes for the more tasty wild fruits of the West.

Native Plant Websites

Check out our website at: www.umt.edu/mnps/ Marilyn Marler, our webmaster, may be contacted at: marler@bigsky.net

For nice pictures of native prairie wildflowers, go to: http://www.em.ca/garden/nat_photos.html

Pursh's Ultimate Irresponsibility

by Rhoda Love, Oregon Native Plant Society

I very much enjoyed the recent two-part *Kelsey* piece on Frederick Pursh by H. Wayne Phillips and would like to add an additional note which further illustrates how Pursh's ethics (or lack thereof) affected the course of American botany. Wayne has explained that, after finishing his seminal work *Flora Americae Septentrionalis* in 1814, Pursh again sailed the Atlantic, dying penniless in Canada 6 years later at the age of 46. For those who do not understand why the Latin word "septentrionalis" means "north," it refers to the seven stars in the constellation Ursa Major or the Big Dipper, which is a prominent feature of the northern sky. Pursh had his good points and bad, the worst being his addiction to alcohol and an accompanying lack of responsibility which led directly to the disappearance of a major portion of the priceless Meriwether Lewis plant collection for half a century.

Upon journeying back to North America in 1814, Pursh left behind in England the Lewis specimens he had, without permission from the American botanical community, taken from this country. These precious plants, rather than being returned, were placed in the private herbarium of Pursh's English patron A. B. Lambert. Lambert's collection subsequently fell into disarray as did his personal affairs and, when he died in 1842, his house, library, and collections were sold to pay his debts. His large herbarium was divided into parcels that were auctioned to the highest bidder. Eleven of the auctioned Meriwether Lewis plants found their way to the private collection of William

Jackson Hooker and from there went to the Royal Botanic Gardens at Kew where they reside today. Others were bought sight-unseen by a young American, Edward Tuckerman, who paid 5 pounds 10 shillings for what Gary Moulton calls "the jewel in the crown for Lewis and Clark enthusiasts," a bundle which contained 47 of the plants that Pursh had purloined. In 1856 Tuckerman presented these herbarium sheets to the Academy of Natural Sciences in Philadelphia. Fifty years after the Voyage of Discovery, they had come home!

Among the Lewis collections now held by the Academy are 227 of the most important specimens from the Lewis and Clark Expedition. The full list can be found in Volume 12 of Moulton's *The Journals of Lewis and Clark*. Happily, in this volume, Moulton provides us with photographs of all the dried plants collected by Lewis and Clark now known to exist. Some of these are great favorites of western botanists; indeed a great many are the type specimens. Types in the bundle bought by Tuckerman at auction include: *Acer circinatum*, *Ceanothus sanguineus*, *Eriophyllum lanatum*, *Fritillaria lanceolata*, *Pentstemon fruticosus*, *Phacelia heterophylla*, *Trifolium macrocephalum* - approximately two dozen in all. Sad to say, others appear to be permanently lost. Pursh certainly held and examined Lewis's collection of *Mimulus lewisii* since he named it for the explorer and illustrated it for his *Flora*, but the specimen cannot be found today. Perhaps the poor man intended to return the plants to their proper home one day, but with body and wits no doubt weakened by alcohol, he left them to their fate and it is only through incredible luck that these irreplaceable bits of botanical history exist at Kew and in Philadelphia today.

WELCOME new members!

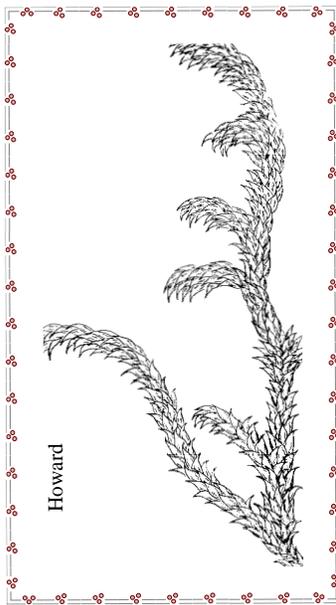
Emeline Chambers, Giles & Sally Cokelot, Maureen Conner, Elizabeth Crone, Jean Daly, Katy Duffy, Amy Edwards, Gregory Engellant, Cynthia Ferrara, Matt Gibson, Joan Gordon, Joe Gutkoski, Louis Hagener, Todd Hoitsma, Patricia Jack, Andy Kukulax, Toni Matlock, Holly McKenzie, Cheryl Moore, Tara Osman, Ducas Philomene, Pat Scown, Pat Smith, Sherry Vogel, Ron Williams, and Jeff Wojak. Your participation and support are important to us. Contact your local representative with any questions or suggestions you may have.

that the Lilliputians had colonized northwestern Montana - miniature discarded hand-warming muffs. Alas, keen observation revealed that we had found an opportunistic population of caddis fly (*Limnephilus* sp.) that uses the rare moss, *Scorpidium scorpioides*, for construction of the outer layer of its protective casing. The moat surrounding the fen was full of these bobbing caddis flies.

Typically, caddis flies build casings with grains of sand, twigs, or organic debris from the bottom of ponds or streams. The Rattlebone Fen population is not your run-of-the-mill caddis. It harvests living, photosynthetically active sprigs of moss from the bottom of the pond (two to three feet deep) and weaves them into its casing. The moss continues to grow, seemingly unaffected by transplanting.

While woven into the caddis fly casing, the living sprigs of *Scorpidium* release oxygen bubbles (through photosynthesis) that become trapped in the dense, fluffy matrix of moss surrounding the cylinder inhabited by the caddis fly. During the day, the moss-enhanced casings float to the surface because of buoyancy brought about by trapped oxygen. Perhaps they sink to the bottom at night when photosynthesis stops. Grizzly bears, bog lemmings, and other wetland denizens that frequent Rattlebone Fen after the moss people have retired might know this.

I suspect that Rattlebone Fen caddis flies benefit from this floating platform, or why would they build an intricately woven structure that floats in response to sunlight? Having a buoyant moss garden on its back may allow the caddis fly greater access to food and provide a convenient take-off platform when the larvae metamorphose into flying adults. I have no idea if Rattlebone Fen caddis flies are a different species from caddis flies in the local creek (I am told that an emerged, adult caddis fly is required for this determination), but I suspect a diligent researcher would find that Rattlebone Fen and other Montana fens have unique and interesting invertebrate faunas as well as wonderful mosses and vascular plants.



Scorpidium scorpioides

Scorpidium scorpioides is a rarely collected moss in Montana. It is found submerged or emergent in calcium-rich waters. The Montana Natural Heritage program lists *Scorpidium scorpioides* as S2 and the Forest Service counts it as a sensitive species. The name comes from a perceived resemblance to a scorpion's tail.

MNPS VOTERS TURNOUT IN RECORD NUMBERS FOR 2002 ELECTIONS

The 2002 Montana Native Plant Society (MNPS) elections set all time records for voter turnout. The MNPS Board of Directors offered a \$100 prize to the chapter with the largest percentage of voters, and the number of voters increased from 33 in 2001 to 83 in 2002, out of the total membership of 412. This equals almost a 20% turnout for the non-contested elections for Vice-president, Secretary and Eastern Representative-at-large. Voter turnout increased 251%. Imagine what the turnout would have been if we had two candidates running for the same office! Pattie Brown of Bigfork, Patrick Plantenberg of Townsend and Jennifer Walker of Lewistown were elected unanimously to the offices listed above.

Some highlights of the election reported at the Annual Meeting by Patrick Plantenberg from his election "canvass" follow. Pat Habeck of Missoula cast the first vote. Eastern voter turnout topped Western voter turnout 25% to 19%. The city of Helena had the largest number of votes with 19. Missoula was second with 16. Votes were received from 34 different cities and 5 different states and Canada. The Kelsey Chapter, headquartered in Helena, cast the largest percentage of votes with 39% and won the \$100 prize. Congratulations Kelsey Chapter! The Maka Flora Chapter in northeastern Montana was second with 27% voter turnout. Two more votes from Maka Flora would have won them the prize. Small chapters, remember that next year!

Again this year, the most popular stamps used on the ballots were floral stamps with a total of 18. Interestingly, the second largest category was fruit stamps. As Patrick noted at the Annual Meeting, this is a sign the MNPS is maturing. See you at the polls next year.

Pat Plantenberg

2003 Small Grants Program

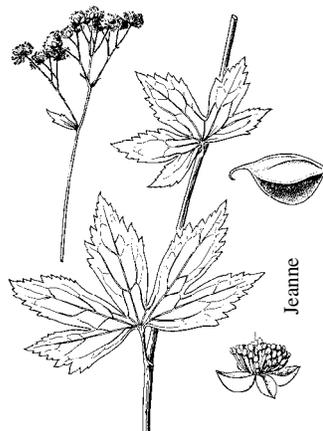
The Montana Native Plant Society (MNPS) announces the eighth annual Small Grants Program for research, study, and appreciation of Montana's native plants. Grants up to \$1000 will be awarded in 2003 to fund projects or studies supporting conservation of native plants in Montana.

The grant competition is open to residents of Montana or members of MNPS. The deadline for proposals is January 31, 2003. The purpose of the MNPS Small Grants Program is to stimulate research, conservation, and education activities which 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 *Kelsey* will include a grant application. For more information contact committee chair Cathie Jean at: cathie_jean@nps.gov

Also recently discovered during a late-August Montana Native Plant Society field trip was *Trautvetteria carolinensis* var. *borealis*, (Ranunculaceae), commonly called tassel-rue or false bugbane.

The field trip participants were no more than 1 mile from the trail head of Middle Cottonwood Canyon, on the west side of the Bridger Mountains, when a population of approximately 30 individuals was observed growing at the base of a north-facing slope in the dense shade of Engelmann spruce, Rocky Mountain maple, snowberry, and honeysuckle. This species has flowers similar to *Thalictrum*, or meadow rue.

There are female and male plants and no petals are produced, which render the flowers inconspicuous. A few female plants were observed with abundant fruits, and these consist of achenes bearing hooked tips. The mature female flowers with a single cluster of hooked fruits give the female plants a superficial resemblance to *Agrimonia* of the Rosaceae



Trautvetteria carolinensis

family, although in this latter genus it is the calyx lobes that are hooked. A single female plant was collected for a herbarium specimen, and upon closer inspection back in the MSU herbarium, the plant was discovered to belong to the genus *Trautvetteria*.

Robyn Klein has observed tassel-rue just over Lolo Pass along the north side of the highway. Pete Lesica informs us that this species is known from Flathead, Lake, Lincoln, Missoula, and Ravalli counties. According to the USDA Plants Database and the Flora of North America Online, *Trautvetteria* only comes into Montana from Lolo on up to the Canadian border. This somewhat broad distribution is apparently why this species is not on the Species of Concern plant list for the state of Montana. The distribution maps for tassel-rue suggest that it should not be east of Missoula, in Montana anyway. The nearest population of tassel-rue to those in the Bridger Range occurs in Yellowstone National Park. According to Jennifer Whipple, the Park botanist, *Trautvetteria* is only known from a couple of sites around Lewis Lake in the Wyoming portion of the Park. Indeed, these are the only known localities for this species in Wyoming, where this species does make the state list for species of concern. In Montana, the west slope of the Bridger Range harbors more than *Trautvetteria* as a relict population. Small populations of *Cornus canadensis* and *Festuca subulata* are also found in drainages just to the north of Middle Cottonwood Canyon.

Mountains, Reefs, and Plains 2002 MNPS Annual Meeting

Like planning a wedding, I fretted like a dotting mother over all the details of the Annual Meeting. Will the weather cooperate? Did we plan enough meals? Will the FLOWERS be ready?! To my great delight, the 2002 MNPS Annual Meeting held at the Theodore Roosevelt Memorial Ranch could not have turned out better. Over 100 members attended the weekend festivities at the beautiful Rasmuson Center on the TRM Ranch. There was plenty of time for friends across the state to catch up during the evening meals and social hours. Due to high water, some of the field trips had to be rearranged, but all trips went without a hitch, a credit to the flexibility of the field trip leaders and participants. As if they knew we were coming, the plants put on an amazing floral display (of course the four feet of snow in May probably didn't hurt matters!). I know that in 7 hours, Steve Shelly's field trip only got a few hundred yards from the center and logged over 100 blooming species! Book, t-shirt and other sales, along with registration fees, generated over \$1600 in profit, not bad considering our goal this year was just to break even. Wayne Phillips's fascinating presentation on the "Botanical Discoveries of Meriwether Lewis" would have been perfect if not interrupted by a classic east front wind that sent everyone scrambling for their tents (in fact I still have a blue tent fly if anyone is missing one!). Sunday morning wrap-up left us warm and fuzzy all over, not only from the success of the weekend, but

from the strengthening of our bond together as friends as well as native plant lovers. The Flathead Chapter did a wonderful job, and I am so grateful for their hard work. Like a big wedding, I had a great time, but I'll be happy not to have to deal with feeding 100 people for a few more years!

The success of the Annual Meeting was due to the hard work of a team of MNPS members. I wish to thank: Shannon Kimball, Jen Asebrook, Mary Sloan, Kerrie Byrne, Pattie Brown, Terry Divoky, Betty Kuropat, Rachel Potter, Tara Williams, Anne Morely, Wayne Phillips, Jon Reny, Lisa Flowers, Dave and Becka Hanna, Peter Lesica, Scott Mincemoyer, Drake Barton, Steve Shelly, and Tara Luna.

Maria Mantas



Spectacular views, beautiful wildflowers and great company highlighted this year's Annual Meeting.

Big Sky Sketches

By Bonnie Heidel

SHOWING ITS TRUE COLORS

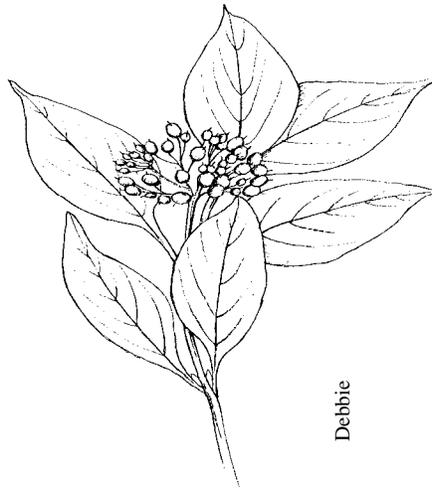
Red Osier Dogwood

Red osier dogwood comes into its own in autumn. After the growing season's succession of colors, we are finally able to see its vibrant red stems that were with us all along. It lends intense color to riverways across the state, from the Yaak to the Missouri.

Look for its flat-topped clusters of white flowers, a cyme, in June, followed by white or bluish berries (drupes) later in summer, and dark green leaves that turn a pale red, readily blown away to reveal its autumn glory. This many-stemmed shrub usually grows 5 to 15 feet tall. I say USUALLY because it is savored by deer and moose. The easiest way to tell if moose live nearby is by the presence of short, browsed, red osier dogwoods that look like they've been attacked by over-zealous hedge trimmers. Such tell-tale signs are found

in places along many streams and rivers in Montana.

It is a favorite landscaping shrub for its accents of color. It thrives in



Cornus stolonifera

moist or well watered settings. The cultivated varieties of this native species have been selected by horticulturalists from plants in the wild for specific colors, growth forms and climate adaptations.

Red osier is a true dogwood, but it grows wild in the same settings as willows. This is the basis for the "red willow" name given to it in Lakota and other Native American languages. Similarly, "osier" refers to the pliable willow traditionally used for furniture and basketry. Thus its red osier name can be paraphrased as "red willow". In addition, it was one of the several plants referred to as "kinnickinnick" for its use in smoking mixtures.

Its most widely used species scientific name, *Cornus stolonifera* Michx., refers to the freely spreading branches that simulate "stolons" (stems that creep on the ground surface) when they grow low to the ground and produce new branches at the tips. This same sprouting vigor along with that of willows may help heal burned valleys after wildfire.

Of course, just to keep us from getting complacent, a name change has been made. Red osier dogwood is now known as *Cornus sericea* L.

By whatever name or namelessness you know it, I wish you autumn days with a river etched in red osier.

2002 Outstanding Service Award

The MNPS Outstanding Service Award is given no more than once a year to a member for their service to the Society. In the 15 years of the Society, seven people have previously received the award. This year, at the Annual Meeting, Kathy Lloyd and Drake Barton jointly received the award for their many contributions and dedication to the Society and to Montana's native flora.

Drake and Kathy have been active members of the Kelsey Chapter since 1994. Kathy has been president of the chapter since the fall of 1995. They have done an outstanding job editing and producing our *Kelsey* newsletter since spring 2001. They are the heart and energy of the Kelsey Chapter. Through their teamwork and motivation, they and the chapter have accomplished much in the way of native plant education and conservation. Some of their contributions include: the Flora of Mount Helena collection at the Lewis and Clark Library in He-

lena for which Drake built the cabinet and they both collected and mounted specimens with much help from other chapter members; the Kelsey Chapter newsletter; a yearly series of newspaper articles on local plants; the 2002 Noxious Weed Calendar, "Montana Landscapes and Invasive Plants" for which Drake contributed many photos, they both helped on content and layout and Kathy co-edited; and the many field trips they lead each year.

Kathy and Drake are conservation minded with incredible focus and dedication to native plants in both their professional and leisure lives. They care about people. Kathy serves as host for our Board of Directors meetings, bringing us treats and hugs. They are a team willing to take on and finish any task that needs to be done. The MNPS would not be the same without them. Congratulations and thank you Kathy and Drake.

Betty Kuropat

Editors' Note: blush!

CALENDAR

ARTEMISIA CHAPTER

Hal Vosen 234-8160

CALYPSO CHAPTER

Annie Greene 683-6594

CLARK FORK CHAPTER

Saturday, October 5, 9:00 a.m.

The Montana Native Plant Society joins the Western Montana Mycological Association for a "Mushroom Foray" with USDA mycologist Frank Dugan. The 5-6 hour hike will leave Lost Trail Hot Springs Resort on Saturday morning. There will be a WMMA potluck that night and mushroom identification on Sunday. To get information on the entire weekend, log onto www.fungaljungal.org.

Thursday, October 10, 7:30 p.m.
Elaine Sheff of Meadowsweet Herbs in Missoula will talk about the many uses of "The Medicinal Herbs of the Rocky Mountains." Rm L09 Gallagher Business Bldg, UM Campus.

Thursday, November 14, 7:30 p.m.
Plant Society member and former Flathead Chapter president Mary Sloan will give us an insider's view on "The Ecology of the Three Forks of the Flathead River." Rm L09 Gallagher Business Bldg, UM Campus.

Thursday, December 12, 6:30 p.m.
Our annual "Christmas Potluck", this year at the home of Dana and Frank D'Andrea. If you're a photographer, bring a couple of your favorite slides from the past summer. 7200 Devonshire; 1 mile south of Blue Mtn. Rd. turn west from Hwy 93 onto Hayes Creek Rd., go 0.4 miles, turn left and it's the 3rd house on the right. Call Dana at 251-2943 for more information.

Thursday, January 9, 7:30 p.m.
Forest Service ecologist Steve Sutherland shows slides of his days working with The Nature Conservancy on "The Prairies of Ohio, Tallgrass to Shortgrass and North to South." Missoula Public Library, 301 E. Main, large meeting room.

EASTERN MONTANA

Jennifer Walker 538-9054

FLATHEAD CHAPTER

All Flathead Chapter meetings (except the December party) 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 (892-2446) for more information.

Wednesday, October 16

Maria Mantas, Flathead National Forest botanist, will be giving a program on "Wildflowers of the Bob Marshall Wilderness." We'll be sharing our summer's excursions with the group after the program.

Wednesday, November 20

Pete Lesica, author of the recently published *Flora of Glacier National Park*, will give a slide show on the "Plants of Glacier" and discuss his many years studying them.

Wednesday, December 18

"Christmas Party" at Edd and Betty Kuropat's in Columbia Falls. Come at 5:30. Potluck at 6:30. Bring a recycled gift or one under \$5. Call Betty at 892-0129 for directions.

Wednesday, January 15

Paul Hansen of Bitterroot Restoration Inc. will be giving a program on the practical aspects of "Lakeshore and Streamside Restoration."

Wednesday, February 19

"Orchids of Montana" will be presented by Wayne Phillips, former MNPS president and USFS ecologist.

Wednesday, March 19

Laurie Hammill, owner of the Nursery for Native Plants in Kalispell, will talk about species selection, site prep, and many other aspects of "Gardening with Native Plants."

Wednesday, April 16

Naturalist Ralph Walcott will give a stunning slide show on the "Northern Continental Divide Ecosystem."

Wednesday, May 21

Dr. Chuck Miller will give a program on "Paleobotany."

KELSEY CHAPTER

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

Wednesday, October 2, 7:00 p.m.

Join us for the first of a series of Botany at the Movies. We will show the first two in the David Attenborough series "Private Life of Plants." "Branching Out" and "Putting Down Roots" will be shown in the large meeting room at the Lewis and Clark Library. Popcorn provided!

Tuesday, October 29, 7:00 p.m.

The second two David Attenborough films: "The Birds and the Bees" and "Plant Politics" will be shown in the large meeting room at the Lewis and Clark Library. Popcorn provided!

Wednesday, November 20, 7 p.m.

Steve Shelly, Region 1 botanist for the Forest Service, will present a program on "Montana's Research Natural Areas." Large meeting room at the Lewis and Clark Library.

Saturday, December 14, 5:30 p.m.

Join us for our annual "Holiday Potluck" and slide show. Andrea and Michael Pipp are our hosts at 1126 Hudson in Helena. Bring your own table service, a dish to share, and a couple of your favorite plant slides. Call Andrea at 495-0409 for info.

MAKA FLORA CHAPTER

Al Joyes 385-2579

VALLEY OF FLOWERS

Valley of Flowers Chapter meets the third Monday of each month. Pro-

(Continued on page 10)

grams 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.

Monday, October 21

John Austin will present a program on "Buffalo Bird Woman's Native Garden." If you have time, go to the Museum of the Rockies before frost and walk through the garden south of the Tinsley House.

Monday, November 18

Monica Pokorny will share with us her findings about knapweed and how it affects other plant communities.

There will be no December meeting. See you the third Monday in January, 2003.

WESTERN MONTANA

Sal Culotta 837-4298

Annual Canoe Trip

Late August is a perfect time to view wetland plants and that's just what Native Plant Society members did for our "Annual Canoe Trip" on the lower Swan River. Four canoes and a kayak braved the raging torrent to view water-nymph (*Najas*), ditchmoss (*Elodea*), mare's-tail (*Hippuris*), wapato (*Sagittaria*) and several species of pondweed (*Potamogeton*). The scout canoe also picked up specimens of obedient-plant (*Physostegia*), woundwort (*Stachys*) and sneezeweed (*Helenium*). Halfway through the trip the exhausted mariners stopped on the lawn of the gracious Dodie Raborg who presented them with a welcome meal of cookies and lemonade. Refreshed, the intrepid MNPS members set out once again. With Kelly at the helm of the guide canoe and Becky in the stern of the rear-guard canoe, we made excellent time and took out just before going over the Bigfork Dam.

**Exploring Nature in Our Own Backyard
The Bull River Outdoors Education Program**

Another season of nature education programs wrapped up in September with the grand finale of the Bull River Outdoors Education Program series on September 28. "Exploring Nature in Our Own Backyard" was this year's theme and that phrase captured well the sense and purpose of this effort in the Noxon area. With the guidance and commitment of the Cabinet Resource Group (CRG), the cooperation of the Cabinet Ranger District of the Kootenai National Forest, the support of the Montana Native Plant Society and another year of generous funding from the Liz Claiborne and Art Ortenberg Foundation, many people - children and adults alike - were introduced to the wonders of Mother Nature.

From snow climbing and glissading to mountain biking, hiking, wolves, lynx and how to change flat tires on rugged mountain roads, we covered a lot of ground this year. A dozen programs plus one encompassed this summer's offerings and each program was well attended. For the first time since the inception of the Bull River Outdoors programs, activities were conducted in the Yaak with the help of the Yaak Valley Forest Council. Emily Gibson organized a day of fun and frolicking in the woods for kids on a cold, rainy Saturday in June (which did nothing to deter these hardy children from having a wonderful time) and then, with Forest Ser-

vice botanist Michael Arvidson, she led a hike into the Mt. Henry Lakes in August.

Late in the season we received fantastic news from Liz Claiborne in the form of a letter congratulating CRG on putting together such a fine schedule of programs and a check in the amount of \$2,500.00. In addition, they requested we submit a proposal for funding again next year. This kind of financial support has been the bedrock of these programs and we extend our sincerest thanks to the folks at the Liz Claiborne and Art Ortenberg Foundation for their confidence and support.

Other funding this year came from MNPS (\$250), Northern Lights Electric Cooperative in Sandpoint, Idaho (\$100) and First State Bank of Thompson Falls (\$196).

The last chapter in the 2002 program series involved a delightful evening around a campfire at the Historic Bull River Ranger Station (where MNPS held its annual meeting in 2001). Several local authors and young musicians gathered to weave a magical night of stories and songs relating to the theme, "The Past and the Present: Linked by Nature." In the shadows of the setting sun and the glittering stars, it was a fitting end to the 2002 Bull River programs; and it set the stage for another season of learning about nature in our own backyard for next year. Tune into the winter edition of *Kelsey* for an announcement about the 2003 Bull River Outdoors Education Program Series.

Dennis Nicholls

Thanks to Pattie Brown and Dodie for making the trip a success.

Peter Lesica



Canoe come out and play?

Natural Heritage Program Positions Available

The Montana Natural Heritage Program is still accepting applications for the positions of Program Botanist, Senior Ecologist, and Ecologist. Full position descriptions are posted on the MTNHP website at: <http://nhp.nris.state.mt.us/employ/index.html>. Anyone interested should submit application materials as soon as possible, or contact Program Director Sue Crispin at 406-444-3019.

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)

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

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

- 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:
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 P.O. Box 8783
 Missoula, MT 59807-8783



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Montana Native Plant Society

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

Your yearly membership fee includes a subscription to *Kelsey*, the 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 *Kelsey* 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: DrakeKath@aol.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 *Kelsey* for friends or family, call the Newsletter Editors, write to the above address or e-mail: DrakeKath@aol.com

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

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