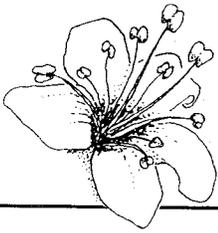


*Kelseya uniflora*



# Kelseya

Vol 8, No 2

WINTER 1995

Newsletter of the Montana Native Plant Society

## HOWELLIA AQUATILIS Montana's First Federally Listed Plant Species

- Steve Shelly

In July, 1994, a landmark occurred in the history of plant conservation in Montana, when the state's first plant species to be protected under the Federal Endangered Species Act (ESA) was listed. *Howellia aquatilis* (water Howellia), a unique member of the Bellflower Family, the Campanulaceae, was officially listed as "Threatened" by the US Fish and Wildlife Service (USFWS) in a final rule published in the Federal Register on July 14, 1994. This ruling completed a listing evaluation process that began on October 30, 1991, when the Montana Native Plant Society and several other interested parties petitioned the USFWS to list the species.

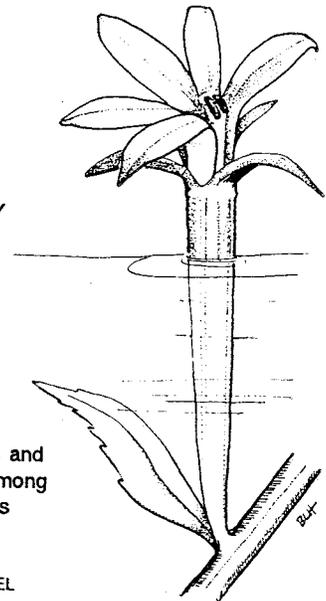
*Howellia* is largely endemic to the Pacific Northwest, although there is one historical occurrence in the central Coast Ranges of California which has not been relocated since 1928. Its current known range extends sporadically from the Swan River valley in northwest Montana, westward through north Idaho, to western Washington. Within this range, the species is currently known from 110 occurrences (an "occurrence" typically occupies a single small pothole pond); 58 of these occurrences lie in the floor of the Swan River valley in Lake and Missoula counties, Montana. Despite this seeming abundance, the total occupied habitat worldwide is certainly less than 100 acres.

The most unusual aspect of the story of *Howellia* lies in its peculiar, highly restricted ecological relationships. The species is best characterized as an aquatic winter annual - indeed a strange combination of life history and ecology! In the Swan River valley, the ponds in which the species occurs have formed in depressions that were left as blocks of ice - buried in the glacial till of the valley's floor - melted after the retreat of the continental glaciers approximately 10,000 years ago. These ponds are typically shallow, averaging one to two feet deep during the middle of summer, and have firm bottom substrates made up of clay and organic matter. In a dry year such as we had in 1994, these ponds dry out, wholly or partially, by early fall. It is this drying that is critical to the species' life cycle: the seeds will only germinate if they are exposed to the atmosphere. The plants then overwinter as seedlings buried under the snowpack. Then, in late spring and early summer, the plants resume growth in the water that accumulates in the ponds, in part from the melting snow and spring rainfall. The stems produce both underwater and

emergent flowers and fruits as long as there is water in the ponds. The seeds are then released as the ponds dry down.

This relationship can have a profound influence on the

Water Howellia  
*Howellia aquatilis* GRAY



Named for brothers Thomas and Joseph Howell, who were among the earliest resident botanists of the Pacific Northwest

ILLUSTRATION BY BONNIE HEIDEL

size of the populations from year to year, since the summer climate in a given year determines the amount of seed germination that takes place during that fall. For example, population sizes were observed to be much reduced in 1994, owing to the unusually cool, moist summer that we had in 1993. This weather resulted in the ponds' regaining much of their water all summer, and in much-reduced fall seed germination, since the seeds were still underwater at winter's onset. Conversely, the much warmer, drier summer of 1988 led to substantial populations in some ponds in 1989. So, if it is a good year for *Howellia*, what that really means is that LAST year was a good year! We can expect that 1995 will be a "good year," since many of the ponds in which *Howellia* occurs were completely dry at the end of the drought summer of 1994.

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# BOTANICAL EXPLORATION IN MONTANA: PART I, 1805-1899

- Robert Dorn

The first plants collected in Montana for botanical studies were by Meriwether Lewis of the Lewis and Clark Expedition in 1805 and 1806. Frederick Pursh described the new species in his *Flora Americae Septentrionalis* in 1814, including the state flower *Lewisia rediviva*, bitterroot. The new genera *Lewisia* and *Clarkia* commemorate Lewis and Clark.

Alexander Maximilian, Prince of Wied, collected along the Missouri River as far as Fort Benton in 1833. His main interest was to describe the country and its indigenous peoples, but he also collected natural history objects. Some of the new species were described by Nees von Esenbeck in the prince's book, *Reise in das Innere Nord-America in den Jahren 1832 bis 1834*. The sunflower *Helianthus maximiliani* commemorates the prince.

Also in 1833, Nathaniel J Wyeth, a Boston trader, collected plants in Montana for his botanist friend Thomas Nuttall. New species were described by Nuttall in the *Journal of the Academy of Natural Sciences of Philadelphia* 7:1-60, 1834. Included was the new genus *Wyethia*, mules-ears.

Charles Geyer, a German botanist, collected in western Montana in 1843. The plants went to W J Hooker in England, and some were described in the *London Journal of Botany* 6:65-79, 206-256, 1847. Geyer's willow, *Salix geyeriana*, commemorates Geyer.

In 1845, Joseph Burke collected in western Montana. His collections went to England. The larkspur *Delphinium burkei* commemorates Burke.

Collectors came more frequently after 1850, often as members of a military or other government expedition. Some are listed in

the box with dates of collections and a plant which commemorates them. Information on others can be found in the references provided below.

*Kelsey* commemorates F D Kelsey, who was a Congregational minister at Helena. He "took up botany as a recreation and did much to arouse interest in this science over the state" (Blankinship, 1905). He was once botany lecturer at the University of Montana. It was under his direction that the World's Fair collection of 1893 was made. Shortly thereafter, he left Montana and became Professor of Botany at Oberlin College in Ohio.

### References:

Blankinship, J W, 1905. A Century of botanical exploration in Montana. Montana Agricultural College Science Studies, Botany 1: 3-25.

Ewan, J, and N D Ewan, 1981. Biographical dictionary of Rocky Mountain naturalists. *Regnum Veg.* 107:1-253.

Hanna, L A, 1955. A chapter in the natural history exploration of southeastern Montana and environs. *Proc. Montana Acad. Sci.* 15:9-11.

McKelvey, S D, 1955. Botanical exploration of the trans-Mississippi West 1790-1850. The Arnold Arboretum, Jamaica Plain, MA. 1144 pp.

Wyoming botanist Robert D Dorn is author of the *Flora of Montana and Flora of Wyoming*, and shared his appreciation of the "Pryor desert" as keynote speaker at the MNPS 1994 Annual Meeting.



### Other botanical explorers and their new discoveries:

Ferdinand V Hayden	1853-1860	<i>Carex haydeniana</i>
George Suckley	1853-1854	<i>Suckleya suckleyana</i>
Winslow J Howard	ca 1866	<i>Eritrichium howardii</i>
Sereno Watson	1880	<i>Cryptantha watsonii</i>
Robert S Williams	1880-1897	<i>Conimitella williamsii</i>
Frank Tweedy	1881-1891	<i>Juncus tweedyi</i>
F Lamson Scribner	1883	<i>Elymus scribneri</i>
Francis D Kelsey	1885-1893	<i>Kelseyia uniflora</i>
John H Sandberg	1892	<i>Lomatium sandbergii</i>
Julius H Flodman	1896	<i>Cirsium flodmanii</i>

## <<<CONSERVATION BULLETS>>>>>...continued from Page Two:

Conservation, National Association of Conservation Districts, Soil and Water Conservation Society, Society for Ecological Restoration, and The Nature Conservancy. Many other agencies and organizations have joined this effort since last May, including the Montana Native Plant Society. Cooperator status will provide a network through which organizations interested in plant conservation can pool and access plant databases, learn how to duplicate locally successful projects, and discover new potential funding sources.

The initial goals of the Committee are to bring in additional partners, develop a strategic plan, and help set up regional task forces and national working groups. Regional groups will be the focal point for developing a prioritized list of sites for concerted plant conservation efforts. National working groups will focus on the four major program areas: conservation actions, databases/information exchange, education/public outreach, and research. A draft strategic plan will be available for review by spring. Look for updates on this exciting initiative in future issues of *KELSEYA*.

- Adapted from an article by Dr. Joan Canfield,

*Endangered Species Technical Bulletin* Vol. XIX No 4 (1994).

Submitted by Angie Evenden.

## NEW GOVERNMENTAL LIAISON ESTABLISHED WITH EXOTIC PEST PLANT COUNCILS

Beginning early in 1995, Faith T Campbell will take up a new position as Governmental Liaison for a coalition of Exotic Pest Plant Councils. Initially, she will represent the EPPCs of Florida, Tennessee, and the Pacific Northwest, but the EPPCs expect to form a national association in the coming months.

According to the 8/16/94 *New York Times*, a 1993 study by the Congressional Office of Technology Assessment has determined that at least 4,500 species of plants and animals from other parts of the world have established free-living populations in the United States. Ms Campbell will help the EPPCs offer their expertise to Federal agencies responsible for identification and control of alien invasive plant species; work to persuade Congress to amend the Federal Noxious Weed Act of 1974 to increase its effectiveness; and build public understanding by coordinating production of fact sheets on the threat to biodiversity posed by invasive alien plant species.

-continued on Page Six

**MEETINGS**

**Monday, January 9, Artemisia Chapter:** 7 pm, Bair Hall, Rm 109, Rocky Mountain College, Billings. Don Heinze will give a talk/slide show on "Sensitive Plants of the Centennial Valley."

**Thursday, January 12, Clark Fork Chapter:** 7:30 pm, Rm 307, Botany Bldg, U of M campus, Missoula. Cathy Stewart of the Bitterroot National Forest will present a talk and slides on "The Ecology of Patagonia." We are - in this case - talking about forest ecosystems of a region in South America, and not the microfauna that live in your unwashed polypro pile jacket.

**Wednesday, January 18, Flathead Chapter:** 7 pm, Fish, Wildlife and Parks Bldg, Meridian Rd, Kalispell. Jerry DeSanto will show slides and talk about "Bitterroot - Montana's State Flower and other Lewisias." A board meeting will be held at 5:30 pm, preceding the general program; everyone is welcome to attend.

**Sunday, January 22, Maka Flora Chapter:** 2 pm, Medicine Lake Wildlife Refuge Headquarters. Program includes hands-on plant press construction session, a presentation on collecting plants, information from the Montana State University herbarium, a chance to view the Refuge's plant collection and a short slide show on native prairie wildflowers. Refreshments will be served. Nonmembers are welcome. Bring your ideas for summer plant walks. If you have questions, call Al Joyes (385-2579), Doug Smith (765- 2310) or Mike Rabenberg (789-2305).

**Tuesday, January 31, Clark Fork Chapter Herbarium Night:** 7:30 pm, Room 303, Botany Building on the UM Campus. Diane Pavek and Roberta Walsh of the UM Division of Biological Sciences will be "Looking at Inflorescences: capitulums, corymbs, cymes, compound umbels and more." Bring a hand lens if you have one.

**Wednesday, February 1, Valley of Flowers Chapter:** 7 pm, Loft of the Plant Growth Center, S 11th Ave, MSU Campus, Bozeman. Steve Shelly, USDA Forest Service Regional Botanist, will discuss and show slides of "Plants on the Edge."

**Wednesday, February 8, Kelsey Chapter:** 7 pm, Lewis & Clark Public Library in Helena. Stephen V. Cooper, Montana Natural Heritage Program Ecologist, will present a talk on "A Candid Look at Montana Vegetation Classification and its Use."

**Thursday, February 9, Clark Fork Chapter:** 7:30 pm, Room 307, Botany Building, UM Campus, Missoula. Carol Brewer of the UM Division of Biological Sciences will present a program entitled "Water on Leaves." Her talk and accompanying slides are an aesthetic look at the physiology and ecology of wet leaves in sub-alpine plants.

**Monday, February 13, Artemisia Chapter:** 7 pm, Bair Hall, Rocky Mountain College, Room 109. Program not yet confirmed.

**Wednesday, February 15, Flathead Chapter:** 7 pm, Fish, Wildlife & Parks Bldg, Meridian Rd, Kalispell. Anne Garde, president of the Clark Fork Chapter, MNPS, will show her slide presentation on "Desert Wildflowers" - a great opportunity to relieve your cabin fever and expose your winter-eyes to the colors of spring. A board meeting will be held at 5:30 pm, preceding the general program; everyone is welcome to attend.

**Saturday, February 25, Board of Directors' Meeting:** 10 am - 3:30 pm, Lewis & Clark Public Library, Last Chance Gulch in Helena. Bring a brownbag lunch.

**Tuesday, February 28, Clark Fork Chapter, Herbarium Night:** 7:30 pm, Room 303, Botany Building on the UM Campus. Steve Shelly, Regional Botanist for the USDA Forest Service, will be showing us the "Flora of Montana Peatlands." Bring a hand lens if you have one.

**Wednesday, March 1, Valley of the Flowers Chapter:** 7 pm, Loft of the Plant Growth Center, S 11th Ave, MSU Campus, Bozeman. Danny Reinhardt, Yellowstone National Park biologist, will discuss "The Whitebark Pine."

**Thursday, March 9, Clark Fork Chapter:** 7:30 pm, Room 307, Botany Building, UM Campus, Missoula. Dr. Paul Alaback ecologist with the UM School of Forestry will present a talk and slides on "The Natural History of Temperate Rain Forests of Southeastern Alaska." This talk was originally scheduled for our November meeting.

**Monday, March 13, Artemisia Chapter:** 7 pm, Bair Hall, Room 109, Rocky Mountain College, Billings. Linda Heinze will give a slide show on the "First Bloomers of the Billings Area"

**Wednesday, March 15, Flathead Chapter:** 7 pm, Fish, Wildlife and Parks Bldg, Meridian Rd, Kalispell. Nate Benson will present a program on "Glacier Fires in 1994." Nate worked on monitoring fires in Glacier NP this year, and will provide us with information on what, how, why and when on these fires. A board meeting will be held at 5:30 pm, preceding the general program; everyone is welcome to attend.

**Tuesday, March 28, Clark Fork Chapter, Herbarium Night:** 7:30 pm, Rm 303, Botany Bldg on the UM Campus. Peter Lesica will help you in "Getting to Know Your Roots." Bring a hand lens if you have one.

**Wednesday, April 5, Valley of the Flowers Chapter:** 7 pm, meeting room of the Public Library, 220 E Lamme, Bozeman. In the spirit of the times, Wayne Phillips, Lewis and Clark National Forest ecologist, presents "Plants of Lewis and Clark's Travels" ...in costume! Please use parking lot on east side of library.

**Tuesday, April 18, Clark Fork Chapter, Herbarium Night:** 7:30 pm, Room 303, Botany Building on the UM Campus. Peter Stickney, USDA Forest Service, Intermountain Research Station Botanist, will talk about the mysteries of "Ephemeral Spring Wildflowers." Bring a hand lens if you have one. There will be a follow-up field trip on Mount Sentinel in May.

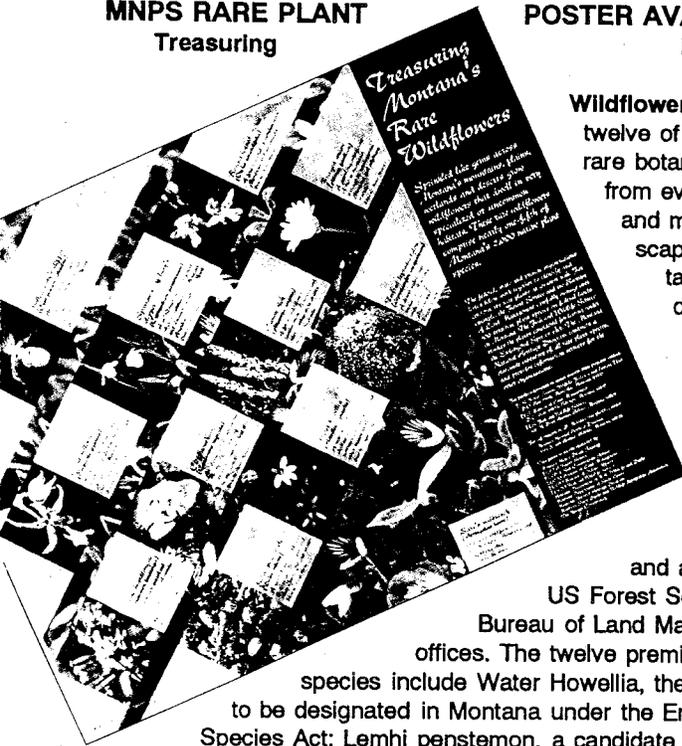
**FIELD TRIPS**
**IT'S NOT TOO SOON...**

...to be thinking about spring and summer field trips for 1995. As mentioned just above, Clark Fork Chapter has a Mt Sentinel trip to scout for those elusive spring ephemerals, and other chapters have plans in the works.

Please send your field trip notices - as well as meeting info - to Janet Johnson, P O Box 1265, Lolo MT 59847, by March 5, in order for them to be included in the spring newsletter.



**MNPS RARE PLANT  
Treasuring**



**POSTER AVAILABLE  
Montana's  
Rare**

**Wildflowers** features twelve of Montana's rare botanical gems from every corner and major landscape of Montana. Individual copies are available free through Native Plant Society Chapters, and all in-state

US Forest Service and Bureau of Land Management offices. The twelve premiered plant

species include Water Howellia, the first plant to be designated in Montana under the Endangered Species Act; Lemhi penstemon, a candidate for designation; Cliff toothwort, a state endemic which is relatively secure in its alpine habitat of the Bob Marshall Wilderness, and others.

They represent the works of six photographers, including striking photographs previously published in books by Dee Strickler and Donald Eastman, and a stunning series of orchid photographs by Maria Mantas.

Over one thousand of the 3500 posters are being set aside for distribution to public and reservation schools, and to teachers in the *Project WILD* and *Project WET* workshops.

This striking poster was printed by Montana Native Plant Society with the support and contributions of ten sponsors organized through the Society. Each of the following sponsors deserve a special thanks:

US Forest Service - Region 1 Office (Division of Wildlife, Fisheries and Botany)

US Soil Conservation Service (state office)

US Bureau of Land Management (state office)

US Bureau of Indian Affairs (state office)

US Fish and Wildlife Service (state office)

Montana Department of Fish, Wildlife and Parks (Conservation Education Division)

Montana Department of State Lands

Montana Natural Heritage Program

Montana State Parks and Wildlife Interpretive Association

Montana Chapter of The Nature Conservancy

Personal thanks are also due Bill Antonich and Carol Evans, the US Forest Service people in the Information Division who provided start-to-finish publishing advice, graphic-artist work and inspiration; Kirk Horn and Deborah Richie in the US Forest Service, who provided invaluable review and suggestions on the text; and Bill Cady (owner) and Alan Tabarraci (graphics artist) of

Advanced Litho Printing in Great Falls, who gave the poster their professional time and expertise above and beyond the realm of "just another job."

-B Heidel

[And thanks to Bonnie Heidel for the enormous effort she put into organizing this project - Board of Directors]

**NEW RESEARCH NATURAL AREAS ON  
NATIONAL FORESTS IN MONTANA**

Seven new areas, encompassing 11,375 acres, have been added to the National Forest Research Natural Areas (RNA) system in Montana. In July '94, Regional Forester David Jolly signed decision memos to establish 6 new RNAs on the Lewis & Clark NF, and 1 new RNA on the Custer NF.

Research Natural Areas are established to protect areas featuring representative and unique ecosystems for ecological study and education. Management of RNAs emphasizes maintenance of natural processes and non-manipulated native communities. These areas provide important ecological baselines and reference sites for monitoring the effects of management practices (e.g. timber harvests) on similar ecosystems.

Many different ecosystem types and features are protected with the recent designations:

**BARTLESON PEAK RNA** (1601 acres, L&C NF), features drier spruce forests and shrub-dominated communities typical of the Little Belt Mountains.

**O'BRIEN CREEK** (715 acres, L&C NF), encompasses the headwaters of a watershed with extensive areas of riparian vegetation. O'Brien Creek has long been closed to livestock grazing to protect the municipal watershed for the town of Neihart.

**ONION PARK** (1209 acres, L&C NF), is within the Tenderfoot Experimental Forest, and includes a large subalpine meadow rich in grasses and wildflowers. Participants in the upcoming MNPS Annual Meeting in June 1995 will visit this RNA.

**PAINE GULCH** (2405 acres, L&C NF), encompasses an entire drainage basin in the Little Belt Mountains. The RNA features vegetation typical of the general areas, and is underlain by Madison limestone.

**WAGNER BASIN** (965 acres, L&C NF), contains a unique wetland maintained by a large travertine-depositing spring which originates within the RNA. The surrounding slopes are important bighorn sheep winter range.

**WALLING REEF** (835 acres, L&C NF) features a high-elevation basin with a small lake and forest and grassland communities. The RNA is within the Great Bear addition to the Bob Marshall Wilderness.

**LOST WATER CANYON** (3645 acres, Custer NF), encompasses a very special watershed in the Pryor Mountains extending from the desert floor to subalpine forests and meadows. A few very lucky members of the 1994 MNPS Annual Summer Field Trip visited this RNA and observed a beautiful wildflower display.

If you are interested in more information on Research Natural Areas please contact the Forest Service Natural Areas Program in Missoula 406-329-3141.

- Submitted By Angie Evenden and Steve Chadde

**Montana Recycling Hotline \*\* 1-800-823-MEIC**

Toll-free number for information on composting and on what/where/how to recycle your household and office waste,

## HOWELLIA AQUATILIS, continued from Page One:

A "Threatened" species is defined by the USFWS as one that is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The listing means that each Federal agency must insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of the listed species. To accomplish this, each Federal agency is required to "consult" with the USFWS on this matter whenever proposed activities may affect a listed species or its habitat.

There are some important differences in the overall protection that is afforded to listed animal species as compared to plants. Most significant is the greater protection provided to threatened or endangered animals on private land. While listed animals are protected everywhere in the United States regardless of land jurisdiction, plants are only directly protected from "taking" on Federal lands. In the case of plants, "taking" means to "...remove and reduce to possession any such species from areas under Federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any law or regulation of any state or in the course of any violation of a state criminal trespass law." In other words, Federally listed plants are only protected on other than Federal lands if their taking would be in violation of an applicable state law. As such, *Howellia* is not legally protected on private lands in Montana, since there is no endangered plant protection law currently in effect in the state.

The next step in the long-term conservation of *Howellia aquatilis* will be preparation of a "recovery plan," a USFWS-sponsored document that spells out in detail the steps needed to insure that the species does not become further endangered with extinction owing to human-caused factors. The recovery plan for *Howellia* will draw heavily on the conservation strategy that was prepared by the Flathead National Forest. This strategy, which was finalized by the Flathead NF in the spring of 1994, provides specific standards and guidelines that the US Forest Service will follow if any land management activities are planned in the vicinity of either occupied, or suitable but unoccupied, *Howellia* habitat.

*Howellia's* highly specialized ecological adaptations make it vulnerable to natural habitat changes over the short and long term. Such changes might relate to habitat shifts within occupied ponds, such as advancing vegetation succession, or to broader-scale and/or longer-term changes such as climate change.

For now, though, the species has been afforded a much greater degree of protection, at least on Federal lands, from any human-caused threats. The ESA does not purport to save species that are prone to natural extinction, but it can at least lessen the role our land management activities might play in that process, especially for highly specialized species such as *Howellia aquatilis*.

- Steve Shelly is Regional Botanist with the US Forest Service Northern Region, and has worked closely with the Montana Natural Heritage Program on this and other species of concern in the state. Bonnie Heidel, botanist with the MNHP, provided the illustration of *Howellia*.

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## <<<<<CONSERVATION BULLETS>>>> continued from Page Three:

An early priority, according to Ms Campbell, is to develop a list of plant species which threaten to become invaders of natural areas. She has prepared an initial list for the continental United States - approximately 30 pages long! - and is seeking the assistance of Native Plant Societies (among others) in reviewing the list. She is particularly interested in learning additional states in which species already on the list have proved troublesome.

A particular focus will be working with the land-managing agencies, APHIS, and the National Biological Survey. KELSEYA will keep you posted as more information becomes available.

### CALLING ALL BOTANY CONSULTANTS

Montana Natural Heritage Program is preparing a referral list of experienced consultants for botanical work in Montana. This is spurred by the number of queries about experienced consultants directed to the Program and to other agencies and organizations, without there being a compiled list beyond the realm of any one person's sphere of contacts.

Please send business name and address c/o Bonnie Heidel, Montana Natural Heritage Program 1515 E 6th Ave, Helena, MT 59620. The compilation will be printed in an upcoming newsletter.

### NATIONAL WILDFLOWER RESEARCH CENTER OPENS NEW FACILITY

The National Wildflower Research Center, of which MNPS is a member, has almost completed construction on its new quarters in Austin, Texas. The new facility will continue to provide a center for native plant research and information, and will provide excellent facilities for meetings and conferences.

Opening festivities are the weekend of April 8-9, 1995. For

further information, contact Patricia Alholm at 512-292-4200. If you're going to be down Texas way in April, plan on stopping by to join the festivities.

### NORTHERN MONTANA WETLANDS PROJECT

I would like to take this opportunity to inform the members at large in eastern Montana, whom I represent, that I have moved from Pleytywood to Fort Belknap. So if there is anything that you would like to have me bring before the Board of Directors, please let me know. My new address is: P O Box 1304, Harlem MT 59526-1304.

One of the projects in the planning stages on the Fort Belknap reservation is a Wetland Mitigation Banking project. This project - the first one in the state - is to replace wetlands that have been altered by road construction, and has many players in the planning stage.

As part of the restoration, it was decided that plants of local interest would be included in the plant list. Some local people were contacted and a list was compiled. Many of the plants can be found at local nurseries, but there are a few not available commercially. I would be interested in finding seed for horsemint (*Monarda fistulosa*), nodding onion (*Allium cernuum*), Indian turnip

- continued next page

**CORRECTION:** The article "Montana Botanists Honored" in the autumn KELSEYA inadvertently misspelled the last name of Klaus Lackschewitz. Thanks to sharp-eyed Rich Producers, Butte, for catching that error.

## WETLANDS PROJECT, continued from Page Six:

(*Arisaema triphyllum*), pineapple weed (*Matricaria matricarioides*), common mint (*Mentha arvensis*), wild licorice (*Glycyrrhiza lepidota*), goldenrod (*Solidago gigantea*), cow parsnip (*Heracleum lanatum*), camas (*Camassia quamash*) biscuitroot (*Lomatium cous*), small spikerush (*Eleocharis parvula*), sloughgrass (*Beckmannia syzigachne*), rabbitfoot polypogon (*Polypogon monspeliensis*), creeping white prairie aster (*Aster falcatus*), coneflower (*Ratibida columnifera*), and Nutall's alkaligrass (*Puccinellia nuttalliana*).

I am not sure that the scientific names are all correct, but between the scientific name and the common name, a person should be able to figure out the plant needed.

The planners of the project are also very interested in any information that could be shared about the local flora of the project area, 14 miles east of Fort Belknap on Highway 2. My home phone number is 353-2709 after 6 pm. My work phone number is 353-2205, ext 487. Please be patient when calling me at work: the main switchboard serves over 150 people. At the main switchboard you will be transferred to ext 487, another switchboard, which serves over ten people who are very good at taking messages for me. - Terry Wamsley

## LIFE IN AN ASPEN GROVE

Anyone who has ever made a fall trek to the Colorado mountains in search of "aspen gold" knows that it is an aspen-rich state. But how many know that aspen help create remarkably complex and busy ecosystems containing hundreds of species, from grasses to gophers, from wildflowers to woodpeckers, from beetles to beavers, from berries to bears? An aspen grove is richer in species than the meadows it borders. An aspen grove is more varied than the dense, dark spruce-fir forest that may eventually replace it.

The Colorado Native Plant Society has developed an introductory-level educational program, *Life in an Aspen Grove*, which takes a close look at aspen trees, the rich and varied habitat they create, and some of the many species that call the aspen woodlands home for all or part of their yearly cycle. Rather than focusing exclusively on one species, this presentation encourages the audience to think about the relationships between the various components in an ecosystem.

The program includes 80 color slides depicting the varied plant and animal life in an aspen grove. A cassette tape (with audible advance signals) contains the spoken narrative. Alternatively, the program is available as a 27 minut videotape. Accompanying either version is a printed booklet that includes the narrative, an extended text containing additional details, and a glossary of terms used in the program.

Order from: Aspen Program, Colorado Native Plant Society, P O Box 200, Fort Collins CO 80522-0200. The slide-tape format is \$42.00 + 3.50 postage; the videotape version is \$20.00 + 3.50 postage. Please include your ZIP+4 in the "ship to" information on your order. Further information can be obtained from Dr Miriam Denham, Chair of the Colorado Native Plant Society Education Committee, at 303-442-1020.

## WILDFLOWER SEED NOW AVAILABLE FROM NEW ENGLAND WILDFLOWER SOCIETY

For gardeners looking for wildflowers to enhance their home landscape, the New England Wild Flower Society offers seeds or spores of over 175 varieties of wildflowers and ferns in the **1995 Seed and Book Catalogue**.

Included in the *Catalogue* are natives for woodland, wetland, and meadow gardens. Once established perennial wildflowers bloom for many years.

The wide choice of seeds offers gardeners - whether notice or experienced - an economical way to obtain wildflowers for their garden, and an opportunity to grow native plants not usually available from nurseries. For people trying for the first time to germinate wildflowers from seed, there are many easy-to-grow varieties; experienced gardeners may choose to try species which require more difficult germination or management techniques.

The *Catalogue* is an adjunct of the Society's world-wide seed distribution effort. Members of the New England Wild Flower Society will automatically receive the *Seed and Book Catalogue* in January 1995. Others may obtain the *Catalogue* by sending \$2.50 to: Seeds, New England Wild Flower Society, Garden in the Woods, 180 Hemenway Rd, Framingham MA 01701. All requests for the 1995 Seed and Book Catalogue must be received by March 1; seed sales close March 15. Seed requests will be filled in the order received.

## NEW BOOK:

### PLANT IDENTIFICATION TERMINOLOGY:

#### An Illustrated Glossary

James G Harris and Melinda Woolf Harris

Spring Lake Publishing, Payson UT

\$17.95 softcover; 198 pp; 1733 illustrations

Many people who must identify plants are overwhelmed by the extensive vocabulary required to use a typical plant identification key. The glossaries provided with these keys are often of limited value because a verbal description may be inadequate to convey the essence of a complex botanical term. Identifying even one plant specimen may become a very tedious and frustrating experience. Frequently, however, all that is required to quickly convey the meaning of a botanical terms is a simple illustration.

**Plant Identification Terminology** defines more than twenty-four hundred taxonomic terms, and provides over seventeen hundred illustrations of exceptional clarity.

Spring Lake Publishing is offering a \$2.00 discount to Native Plant Society members. When you order, simply indicate your affiliation with MNPS to receive the discount. Spring Lake does not accept credit card or telephone orders, but does take personal checks. The cost of the book (\$15.95 with the discount) includes shipping. Order from: Spring Lake Publishing, P O Box 266, Payson UT 84651.

## PLEASE WELCOME THESE NEW MEMBERS:

<b>MONTANA</b>	<b>CALIFORNIA</b>
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**MONTANA NATIVE PLANT SOCIETY**  
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**MONTANA NATIVE PLANT SOCIETY**

The Montana Native Plant Society is a 501-C-3 (non-profit) corporation chartered for the purpose of learning more about plants native to our state and their habitats, and of sharing that knowledge. Contributions to MNPS are tax deductible, and may be designated for a specific project or chapter, or may be made to the general 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 - almost anything, in fact, that relates to our native plants or the Society. **Please include a one- or two-line "bio" sketch with each article.** Drawings should be in black ink or good-quality photocopy. If you send clippings, please note the source, volume/issue and date.

All meeting and field trip notices, field trip reports or announcements should be mailed to Janet Johnson, P O Box 1265, Lolo MT 59847; articles should be sent to Terry Wamsley, P O Box 1304, Harlem MT 59526. All items should be typed or on disk - prefer 3.5" - in WordPerfect 4.2 or better, or in a generic ASCII file.

**Changes of address** and inquiries about membership in MNPS should be sent to MNPS, Attn: 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 plants or the interests of MNPS members.

**Deadline for the Spring issue is MARCH 10;** please include meeting/field trip notices through mid-July '95. The Spring issue of KELSEYA will be mailed the last week of March.

**IF YOU MOVE, PLEASE SEND US YOUR CHANGE OF ADDRESS**



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**PROTECTING THE DIVERSITY OF LIFE: Endangered Species in Montana**

Experts predict that 100 species may be disappearing EVERY DAY by the end of this decade. This alarming loss of species is one of the most critical problems humans face today.

Saving endangered species is saving ourselves. Wild species comprise the fabric of healthy ecosystems - wetlands, grasslands, forests and others - on which we depend to purify our air and water, to regulate global climate, and to supply us with food. When species become endangered, it indicates that the health of these vital ecosystems is unraveling.

An astounding number of species provide us with over 40% of our prescription drugs, including life-saving medicines used to treat heart disease and some types of cancer. Some species provide us with sustainable food crops and consumer products. But EVERY SPECIES plays a crucial role in our ecosystems.

The Endangered Species Act is the foundation of wildlife and habitat protection in the US. It is now up for renewal in Congress but - despite strong public support - the Act is fighting for its life against the anti-environmental backlash. Learn about endangered species in Montana and about the Endangered

Species Act, in a seminar/activist workshop scheduled for Friday and Saturday, January 27-28, 1995, at Montana State University in Bozeman.

The seminar on Friday, 1-5 pm, offers sessions on "Endangered Species Act at the Crossroads," "The 'Wise Use' Movement," and "Takings and Environmental Legislation." At 7 pm a panel of experts on Montana's endangered species will discuss a variety of specific animals and plants. Wayne Phillips, ecologist with the Lewis & Clark National Forest, will present "Endangered Plants and Their Medicinal Value" as part of this panel.

Saturday's activist training workshops will demonstrate an array of hands-on, effective techniques for supporting the Endangered Species Act, both locally and in Washington.

All sessions take place in Ballroom B in the Strand Union Bldg, MSU campus. Co-sponsored by ten regional environmental organizations, the seminar is free to all interested individuals. Registration is not required, but is requested. Contact Joe Gutkoski, 304 N 18th, Bozeman MT 59715; or call 406-587-3242.