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Spring 2004

### 2004 Friends of The University of Montana Herbarium Newsletter

Peter Lesica

David Dyer

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# FRIENDS

*Of The University  
Of Montana*

# HERBARIUM

Spring 2004

## Kathy Peterson (1948-2003)

by Kathy Ahlenslager

**K**athleen Margaret Peterson was a botany professor at the University of Montana and curator of the UM Herbarium from the fall of 1979 to the spring of 1987. Kathy died November 24, 2003 in Camp Hill, Pennsylvania after a courageous four-year fight with ovarian cancer. Kathy began the modernization of the UM Herbarium, a process that goes on today. She hired a collections manager to oversee the daily activities of the herbarium and began distributing a backlog of dried plant specimens. Student workers and volunteers mounted and filed thousands of plant specimens. She purchased the first computer for the herbarium.

Kathy was born on March 10, 1948 in Oak Park, Illinois, a suburb of Chicago. Kathy's father, Carl Peterson, doesn't know where she acquired her interest in plants, but in 1969 she received a Bachelor's of Science in botany, at the University of Illinois in Urbana-Champaign, with minors in chemistry and geology. She stayed on there as a graduate teaching and research assistant from August 1969 to October 1971 and studied the genus *Hymenoclea* in the Sunflower family for a Master's of Science from the Plant Systematics and Evolution Department with Dr. Willard Payne.

From August 1973 to June 1978 she was a graduate teaching and research assistant at the University of Maryland, College Park. Her doctoral work in evolutionary biology and genetics with James Reveal resulted in several trips to Mexico to collect plants to study the systematics of the mint genus *Salvia*. These trips were supported by a National Geographic Society grant and by a doctoral dissertation improvement grant from the National Science Foundation.

On a trip to Guerrero, Mexico in 1975, Kathy, James Reveal, Rose Broome and Ray Harley found eight new plant species. One of those, a beautiful pink bladderwort, was named for Kathy (*Utricularia petersoniae*). As an expert in the taxonomy of *Salvia*, she traveled to Kew Gardens in England to annotate the *Salvia* specimens in the herbarium. In 1978 she was recognized as the Outstanding Graduate Student with the Carroll E. Cox award. From August 1978 to June 1979 she was an instructor in the Botany Department at the University of Maryland, teaching introductory classes and publishing two research papers.

The University of Montana hired Kathy as an Assistant Professor of Botany in September 1979. One of the first things she did was to write a successful \$90,000 research grant to update laboratory equipment, including a microscope with a camera for cytological studies. She was on the Editorial Board for *System-*



Kathy Peterson in Mexico, 1982

*atic Botany*, a professional journal, from 1980 to 1982. Kathy was promoted to Associate Professor of Botany in September 1984 and achieved tenure in 1986. She was president of the University of Montana Chapter of the Society for the Sigma Xi, a national scientific research society from 1984 to 1985.

(Continued on page 5)

### 2004 Friends of the UM Herbarium Annual Meeting

The Annual Meeting of the Friends of the UM Herbarium will be held Saturday, October 30 from 10 am to 2 pm. The meeting will be held in Rm 202 of the Natural Sciences (Botany) Building on the UM campus. This is the annual meeting of the Board of Directors and is open to the membership.

## Friends

of the University  
of Montana

## Herbarium



**Biological Sciences  
University of  
Montana  
Missoula, MT 59812**

*The Mission of the  
Friends is to secure  
support for and to  
enrich the  
collections and  
operations of  
The UM Herbarium*

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The *Friends* Newsletter  
is edited by  
Peter Lesica and David Dyer

Layout by  
Drake Barton and Kathy Lloyd

## Activities

The Clark Fork Chapter of the Montana Native Plant Society held three meetings in the herbarium in 2003. Peter Stickney gave a presentation on the genus *Veronica*, Steve Shelly taught a session on *Phacelias*, and Peter Lesica provided illumination on lupines.

## Notes from the Board

In my college years I studied wildlife biology, but unlike my carnivore and ungulate-tracking classmates, I couldn't help my fascination with the minute and intricate parts of the world in which the animals I studied lived. I learned the trees, not just one from another, but the ways in which the needles attached to the twigs, the shape of the buds, and the texture of the bark. I wondered at the flowers, not just at their beauty, but at the design and shape of their petals. I would study the prints made by animals in the mud so I could easily tell the difference between deer, elk and moose, as well as the patterns in the snow that would reveal the gait by which the animal was traveling. Most of all, I looked for the signs that told a story... the mushrooms laid on the branches to be dried by squirrels, or the brush of wingtips in the snow astride a pile of fur and limbs that used to be a snowshoe hare. These are the observations of a naturalist. In today's world this title seems antiquated and elementary.

Our universities rarely consider study of the natural sciences, such as botany, zoology, and entomology, advantageous. Certainly there are still systematists who continue the centuries-old method of cataloging and classifying species, but when one compares the importance placed on the natural sciences versus those such as molecular genetics and virology it's easy to see that the former are not currently in vogue. All one has to do is look at the funding and staffing of these departments in universities to see that this is true. But there was a time when nothing was more important in the world of science. Enormous value was placed on the discoveries of new fauna and flora, and men and women took great risk to obtain this information. As early as the 18<sup>th</sup> century, British and early American governments and academic institutions generously funded expeditions for naturalists who were commissioned to go forth into the wilderness and seek out plants and animals that might prove useful in agriculture, horticulture, and medicine. Naturalists such as David Douglas (Douglas-fir, *Douglasia*) as well as Thomas Drummond (Drummond's willow, rockcress, and milkvetch) were both employed by the Royal Horticultural Society of London to find ornamentals for English parks and gardens. George Engelmann (Engelmann spruce), a German born physician, couldn't wait to study plants and kept an herbarium between tending to patients. John Bartram, a man Linnaeus himself called "the greatest natural botanist in the world", along with Benjamin Franklin and others, founded the American Philosophical Society, an organization which later sponsored the Lewis and Clark Expedition at the bequest of then President Thomas Jefferson.

How much the world has changed since then. Is it foolish to think that knowledge of the natural sciences could or should rival the need we have for modern day science? There are some of us who would give anything to go back to those times when it was simply enough to discover and describe new taxa. But our numbers are fewer every year. Where have all the naturalists gone? I'm not sure, but one thing is for certain. The only concrete evidence of their work is the thousands of specimens that lay in cases and cabinets in museums and herbaria. It would be quite the understatement to say that these products of their explorations are invaluable to science. These specimens are not only useful for learning and studying taxa, but they are in fact part of our scientific history, well worthy of our efforts to protect them for many decades to come.

Maria Mantas

# MONTU People

## ...Dennis Woodland

Two species of mountain heather (*Phyllodoce*) occur throughout the high country of northwest North America. In many places yellow and purple mountain heather grow together, and when they do they are prone to hybridize. These pink-flowered hybrids share characters of both parent species. Discovering a patch of hybrid mountain heather at treeline in the company of snowfields and rocky peaks is always fun, and it was this experience that started one college student's lifelong dedication to botany and eventually brought him to the University of Montana.

Dennis Woodland grew up in northeast Oregon in the rangeland and pine savannah country around Pendleton. As an undergraduate he studied zoology at Walla Walla College just north of the state line in Washington. He attended the college's field station in western Washington his senior year, and it was on a field trip near Mount Baker in the Cascade Range that Dennis became acquainted with the mountain heathers and the thrill of alpine botany. He went back to Walla Walla College for a master's degree, but now he had direction. Dennis' thesis project was a floristics study of the Lakes Basin area of the Eagle Cap Wilderness in the Wallowa Mountains of northeast Oregon, one of the most biogeographically interesting alpine areas of North America. During this time he married his wife Betty, and they took their honeymoon in the Wallowa high country. The arrangement undoubtedly improved his collecting. Years later he wrote the geology introduction to Georgia Mason's flora of the region. Now Dennis was really hooked on botany.

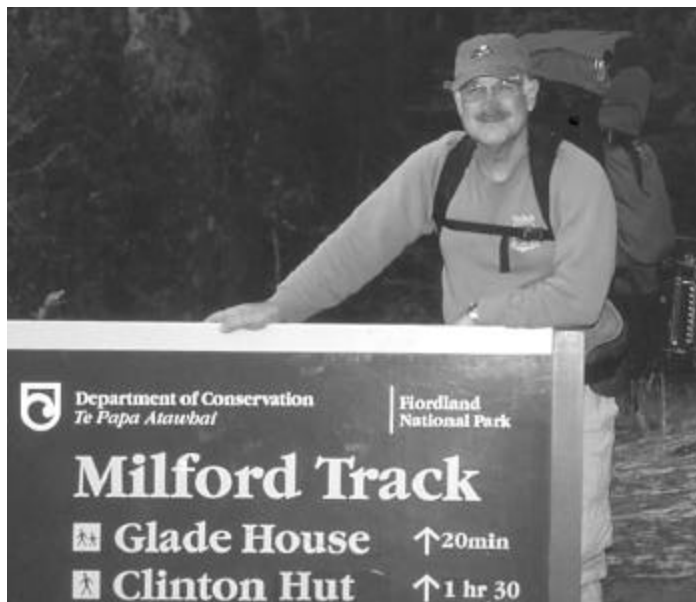
Dennis and Betty moved to Montana in 1965, and both began graduate programs at the University of Montana, he in botany and she in music. Dennis began his studies of the genus *Urtica* (nettles) in North America, research that continues to this day. He spent his summers teaching at the Flathead Lake Biological Station and conducting floristic research at the National Bison Range and in the high country of northwest Montana. His collections from the high country of the Cabinet Range are still the only ones from that inaccessible region in the UM Herbarium. He made the first Montana collections of *Saussurea americana* and *Grindelia howellii*, and published these findings in *Madrono* (Journal of the California Botanical Society) in 1967.

Dennis finished his class work after two years, so in the winters of 1967 and 1968 he left Missoula to teach high school in Jordan, Montana and spent the summers teaching field biology for Powell County High School in Deer Lodge. Meanwhile, he had collected live material of *Urtica* and was raising it in the greenhouses at UM to use in his studies on chromosome and chemical taxonomy. When Dennis returned to Missoula after his second winter of teaching in Jordan, he found that his plants had been moved to an unheated greenhouse and had all frozen. At this point Dennis relocated to Iowa State University where there were better laboratory and greenhouse facilities. He finished his research in two years and took a position as professor and curator of the herbarium at McGill University in Toronto. He received his Ph.D. in 1974 and published several papers on the systematics of *Urtica* over the next eight years. Dennis had-

n't forgotten Montana; in 1980 he published a note in *Madrono* clarifying which subspecies of *Urtica dioica* were found in the state. In 1979 he accepted a position as professor and curator of the herbarium at Andrews University in southwest Michigan.

Dennis settled into a life of teaching and raising two daughters, while Betty taught music at a nearby college. He maintained his research interests in the nettles, working on treatments for the *Jepson Manual* and the *Flora of Mexico*, and began research on local floristics with his many M.S. students. During this time he was also working on a plant systematics textbook. In 1991 he published the first edition of *Contemporary Plant Systematics*, an undergraduate text used at many colleges and universities, including the University of Montana. The third edition came out in 2000, and a fourth is planned for 2005. Dennis has taught at field stations in Michigan, Washington, Wyoming and Oregon in the summers. He has continued to collect plants in China, Mexico, Colorado and Wyoming. Last year he fulfilled a lifelong desire to backpack in New Zealand. Just a couple of years ago he stopped in Missoula while on a trans-continental bicycle trip with his daughter. He may not have made any collections, but they certainly stopped long enough to look at the nettles.

Peter Lesica



Dennis Woodland at Fiordland National Park, South Island, New Zealand, December 2003

### Thanks to new members of the Friends!

Your continued interest and support is what makes us effective. Thanks, and welcome to these members, new since the last newsletter.

Rose Baker, John Brown, Elizabeth Crone, Lila Fishman, Cary Lund & Susan Witte, Andrea Pipp, Susan & Steve Rolfsmeier (High Plains Herbarium, Chadron, NE), Dr. Ronald Weedon (High Plains Herbarium, Chadron, NE), Westech Environmental Services

## MONT NEWS BRIEFS

### New Acquisitions

Loren Bahls (500 slides of diatom specimens from western North America)

Drake Barton (5 Montana collections)

Peter Lesica (255 Montana collections)

Marilyn Marler & Brad Cook (31 Montana collections from Ph.D. project)

Scott Mincemoyer (24 Montana collections)

Robert Ream (12 specimens from North American arctic)

Steve Shelly (54 specimens from Montana and Idaho)

### Loans for Research

The UM Herbarium sent out three loans in 2003. Peter Zika obtained 17 specimens of *Juncus*. Peter, with Swedish and Czech collaborators, is working on a monograph of the Juncaceae for the Flora of the World project based in Australia.

Julie Dragon, a systematics student at the University of Vermont borrowed 13 sheets of *Carex lenticularia* var. *dolia*.

Loren Bahls made the first collection of the diatom genus, *Distritionela* from North America. Eduardo Morales, at the Academy of Natural Sciences in Philadelphia, requested a loan of Loren's voucher housed at UM.

### Acquired on Exchange

University of Oulo, Finland (93 specimens)

Snake River Plains Herbarium, Boise (112 specimens)

New York Botanical Garden (200 specimens)

Montana State University (20 specimens)

University of Idaho (166 specimens)

### Publications Based on MONTU Specimens

Kartesz, J. T. and C. A. Meacham. 2004. Synthesis of the North American flora 2.0. Biota of North America Program, Chapel Hill, NC.

Lesica, P., P. F. Stickney and D. Hanna. 2003. Noteworthy Collections: Montana. Madrono 50: 214-215.

Nisbet, J. 2003. Visible bones: journeys through time in the Columbia River country. Sasquatch Books, Spokane, WA.

Phillips, H. W. 2003. Plants of the Lewis and Clark Expedition. Mountain Press, Missoula, MT.

Zika, P. F. 2003. The native subspecies of *Juncus effusus* (Juncaceae) in western North America. Brittonia 55: 150-156.

### The UM Herbarium received 14 requests for information in 2003, including:

Utah State University Herbarium- label data for *Calamovilfa* and *Muhlenbergia*.

Michigan State University- label data for *Achillea nobilis*.

Cornell University- label data for two exotics: *Artemisia vulgaris* and *Polygonum cuspidatum*.

Texas Division of Wildlife - label data for *Prenanthes sagittata* and *P. racemosa*.

Morrison Maierle Inc. - identified a specimen of *Juncus longistylis*.

Wojcieh Adamowski, a Polish botanist- label data for *Epipactis helleborine*.

Provided photocopies from floras in MONTU library for child's science project.

## The Bryophyte Corner

### THE CRYPTIC COLLECTION OF CRYPTOGRAMS

by Joe Elliott (Bryocurmudgeon)

The moss collection at the herbarium consists of one over-filled cabinet squirreled away in a closet-sized room off the corner of the spacious suite occupied by cabinets housing vascular plants. Yet another case where mosses are relegated to second-class citizen status; however, its small size and inauspicious quarters belie the history and romance (yes romance!) that are reflected in the numerous little packets stuffed with dried specimens, many with handwritten label information.

The moss collection housed in the herbarium has a few Montana specimens of P. Rydberg and E. Bessey, dating from 1897; at least one 1908 collection (from Jamaica) by the prominent moss woman, Elizabeth Britton; and numerous collections by T. C. Frye from the 1920's and 1930's. Dr. Frye, a professor of botany at the University of Washington, collected widely in the West, Alaska, and Mexico and developed one of the best bryophyte herbaria west of the Mississippi River at the UW.

A batch of mosses collected in Michigan in the 1940's by Maria Ruisanchez is deposited in the herbarium. Maria collected these as a student and later married LeRoy Harvey, a long-time professor of botany at the University of Montana (the romance earlier referred to). Numerous collections by Dr. Harvey reflect an interest in mosses during his early years in Montana, which apparently faded as there are few of his collections

(Continued on page 7)



Non-vascular room at the UM Herbarium  
(botanist for scale)

...Kathy (Continued from page 1)

Besides teaching classes and supervising thesis and dissertation research, she wrote and published one book chapter and six research papers, and directed operations and employees for the University of Montana Herbarium. Her interests ranged from the systematics of *Salvia* to rare plant biology. She was the foremost authority on the *Salvia* of the Chihuahuan Desert. She coauthored Montana's first publications on rare plants.

Kathy touched the lives of scores of students through the classes she taught and the seminars she led. At the University of Montana these included: plant taxonomy, systematic botany, genetics and evolution, local flora, pollination and cladistics. With two other "Kathy's" in her lab, her students called her, KP. A large part of Kathy's botany legacy is her students. I was one; John Pierce, Jennifer Ramstetter, Kathy Ake, Jane Fritz, Jeffrey Strachan, Lisa Campbell and Roberta Walsh were the others. She was a rigorous, but supportive mentor to her eight graduate students. She met regularly with them and challenged us to be thorough in our research. She always made time in her busy schedule to meet with her students.

Jeff Strachan, her sole Ph.D. student recalls meeting Kathy for the first time while they were both still in Maryland. Jeff collected a mint he couldn't identify and decided to try to get some help from Reveal's mint expert grad student. He found Kathy working away on the fourth floor of the non-airconditioned biology building in the middle of Maryland's subtropical summer. She was finishing her dissertation at the time but readily agreed to look at his specimen, took the time to help him key it out, and then spent another hour instructing him on some fine points of the Lamiaceae. Jeff recalls the smile she had on her face when he left. Teaching was her first love, and Jeff had made her day. John Pierce recalls that Kathy enjoyed life and created an atmosphere of fun in the lab. She expected excellence, but as long as you gave all you had, she stood by you.

Jennifer Ramstetter reminisces: "I remember the feeling of excitement when KP urged me to study the ecology of a rare *Penstemon* in Montana's beautiful Big Hole. Twenty years later, rare plant studies and conservation remain the focus of my research and teaching. I learned from her precision and care in my work and received her constant support. I've thought of her often over the years as I try to pass these qualities on to my students. I'm sure I never adequately conveyed my appreciation to KP for these gifts; I can only hope that somehow she knew through the Missoula grapevine the difference she made for me." In 1982 Kathy wrote a National Science Foundation Grant that funded a collecting trip to Arizona, Texas and Mexico to study *Salvia*. Jeff Strachan and I accompanied her in a university-owned GMC Sierra suburban. During this seven-week 12,228-mile trip we collected hundreds of plant specimens and flower buds, forming the basis for my master's degree and some of her research. We traveled to locations of mint plants that we had recorded from loaned herbarium specimens. Crisscrossing the Sierra Madre Occidental, we followed roads as high as they would take us. More than once we turned around, when road conditions deteriorated beyond our comfort level or the amount of gas in the tank directed. The suburban had its own personality and required more than one hasty visit to a large city for auto repair. Although we mostly ate food that we prepared, each of us experienced turista, followed by antibiotics.

One of the most memorable events from my grad school ten-

ure occurred on January 31, 1983. Faculty and students celebrated accessioning the 100,000th plant specimen into the University of Montana Herbarium. A sheet of *Kelseya uniflora*, endemic to Montana and mascot of the Montana Native Plant Society, was chosen. We drank Margaritas and ate chips and guacamole, setting aside for one time the ban on food in the herbarium.

In the fall of 1987, Kathy left the University of Montana, married and began a new life in Pennsylvania. She took paralegal courses at the Lancaster Branch of Pennsylvania State University and received a paralegal certificate in March 1989. She worked as a Law Clerk in the Treasury Department of the Commonwealth of Pennsylvania in Harrisburg from June 1991 to May 1992 and was a Legal Intern in Hazardous Sites Cleanup in Environmental Resources from September 1991 to May 1992. She earned a J.D. from the Dickinson School of Law in Carlisle, Pennsylvania in 1992. Her law honors included membership of the *Dickinson Law Review* and Appellate Moot Court Board. Her activities included Managing Editor of the *Dickinson Journal of Environmental Law & Policy* and Women's Law Caucus.

As a full-time attorney at the Department of Treasury, Kathy was Assistant General Counsel from August 1992 to September 1995 and Associate General Counsel from September 1995 until her death. She worked in the Legal Office and the Human Resources Office. Kathy's coworkers at Treasury remember her wit, wonderful prankish sense of humor and the multiplicity of her character as an outdoors woman, wonderful baker, collector of walking dolls, fine china connoisseur and plant guru. She once took home a coworker's ailing orchid and brought it back blooming a year later. She was generous with her time and interests to all she worked with and taught.

#### Published articles by Kathy Peterson:

Peterson, K. M., P. Lesica and J. S. Shelly. 1987. Rare plants: summary report, pp. 97-113. In D. J. Loop and J. R. Bird (eds.), Proceedings of the 1986 Natural Areas Conference. The Nature Conservancy, Helena, MT.

Lesica, P., G. Moore, K.M. Peterson & J.H. Rumley. 1984. Vascular plants of limited distribution in Montana. Montana Academy of Science Monographs 2:1-61.

Reveal, J.L. & K.M. Peterson. 1983. Biosystematics and evolutionary studies of *Salvia* subgenus *Calosphace*. Research Report of the National Geographic Society 15: 557-564.

Peterson, K.M. 1981. Rare Plant Information Sources: Montana, In Proceedings of the Rocky Mountain Regional Rare Plant Conference: Energy Development and Rare Plants-Planning for the Future. Pg. 52.

Peterson, K. M. and Raymond M. Harley. 1978. *Salvia reptans*. Labiatae. Curtis's Botanical Magazine 182:13-16.

Broome, C.R., J.L. Reveal & K.M. Peterson. 1977. Exploring the green frontier. University of Maryland Graduate School Chronicle 10(4): 3-6.

Peterson, K. M. and W. W. Payne. 1973. The *Asplenium trichomanes* complex in the United States and adjacent Canada. American Fern Journal 72:5-11.

Peterson, K. M. and W. W. Payne. 1973. Observations of the hypodermises of ferns. American Fern Journal 63:34-42.

Peterson, K. M. and W. W. Payne. 1973. The genus *Hyomenoclea* (Compositae: Ambrosieae). Brittonia 25:243-256.

# Notes from the Herbarium Prep Room

*Castilleja*. “How do you pronounce this one?” I asked Virginia Vincent, the cheerful volunteer at the herbarium where I work. A smile swept over her ruddy, well-lined face. She walked over to my side of the table. “Cass-tih-lay-hah. I believe that is how it’s pronounced - a Spanish pronunciation,” she said, her head peering over my shoulder at the dried, pressed specimen of *Castilleja miniata*, red Indian paintbrush, that I was about to glue and mount onto archival paper.

“That’s closer to what I thought,” I said, chuckling, “It’s my favorite flower. I have never seen a yellow one, though. I’d love to see a yellow one.” Virginia told me that she thinks yellow Indian paintbrush grows right up on Mt. Sentinel, the rounded grassy-gold hill that serves as the backdrop of the University of Montana campus.

I dipped the red Indian paintbrush in a film of glue and placed it onto a large piece of paper. The once cardinal-red blooms had browned, but there remained one small spear of color jutting out from within the flattened crown of the plant. The larger *C. miniata* plant differed a lot from the scarlet Indian paintbrush (*C. coccinea*) plants that I used to see growing creekside in Tennessee. When I worked at a native plant nursery there two years ago, I would look for the salmon-rose colored tips of the smaller, shyer paintbrush in the shade right at the edge of the creek near the nursery. I used to collect the tiny, poppy-sized, black seeds from the pods that formed on the plant after the blooms were spent. I did so at the request of my boss, an aging hippie named Mike, who wanted me to propagate them. “Go out and collect the Cass-tuh-leeed-juh today, Allison,” he used to tell me.

While the flowers kept in the herbarium are dried and pressed onto paper, sometimes they still look as if they were in the process of growing and moving with the breeze. I like to picture where plants in the herbarium come from, whether it’s the Black Rock Desert of Nevada or the Pioneer Mountains in Montana, growing in dry, gravelly soil or maybe along a creek in the squishy mud. Sometimes I touch the plant and its roots, gently running my fingers along the delicate stems and leaves, in an attempt to connect with another place and time. I get a particular satisfaction from seeing plants that remind me of places that I love. Indian paintbrush often reminds me of Tennessee, where I grew up. But it always reminds me of New Mexico, where I lived for three years after college and fell in love with the West.

When I taught at an outdoor school in the Sandia Mountains near Albuquerque, I used to walk by Indian paintbrush flowers every day. As my students and I trudged up the trail, out of the scant shade of a few junipers and pinon pines, we would emerge in a sun-drenched field of brown grasses, and catch the scent of a field of chocolate flowers (*Berlandiera lyrata*) to our left. The fragrance of warm chocolate chip cookies would send us into a dream state, only to be shocked awake by the intense crimson Indian paintbrushes ablaze in the field ahead. They stood like spiked torches, little punks rising in brazen resistance to the surrounding muddle of browns, mustard yellows, and dulled greens in the crispy meadow.

Despite their two-dimensional, sometimes faded colors, I can

still see much of the character that the herbarium plants displayed in life. Today, for the first time, I saw a yellow Indian paintbrush. It was *Castilleja cusickii*, Cusick’s paintbrush, a specimen that Peter Lesica collected last summer in Beaverhead County, Montana. It was a pale, greenish-yellow, with a mass of large blooms. I imagined it as it will look this coming July, growing on the edge of the small wetland in the Blacktail Range, the bloom as a splay of chubby, yellow fingers asking the sky for rain, and I smiled.

Allison Holt

## Taken from a letter to *Science*, 16 January 2004

The biological collections in natural history museums and herbaria also serve vital roles in protecting sustainable agriculture, including the identification and mitigation of invasive alien species, and enabling biological control. When the cassava mealybug threatened collapse of the staple diet of millions of Africans, successful biological control was achieved only after in-depth research on classification with museum collections. These collections also allow identification of disease vectors and pollinators, document ethnobotanical practices, and support a vast array of other uses. It is ironic that, just as the U.S. National Science Foundation increases funding for biodiversity research, many states are threatening to discontinue support for their collections.

Scott E. Miller, W. John Kress and Cristian Samper, National Museum of Natural History, Smithsonian Institution

## Visitors to the University of Montana Herbarium in 2003

### General Public and Private Consultants

Claire Emery, Nancy Anderson, Bill Comstock, Sue Wall-Maclane, John Pierce, Gary Schneider, Marilyn Marler, Andrea Pipp, Laura Becker, Tim Wheeler, Scott Miles

### UM Researchers

James Habeck, Elizabeth Crone, Leo Polansky, John Brown

### Out-of-town Academic Researchers

Loren Bahls, James Reveal

### UM Students

Jennifer Williams, Marianne Zugel, Michael Gundale

### Federal Agency Biologists

Peter Stickney, Scott Mincemoyer, Linda Pietarinen, Janet Howard, Amanda Seibil, Lauren Priestman, Randi Anderson, Peter Husby, Peter Achuff,

### The Nature Conservancy

Curtis Bjork

### Fort Belknap Indian Reservation

Dennis Longknife

Claire Emery and Nancy Anderson used the herbarium for their botanical illustrations. James Reveal, professor emeritus at the University of Maryland and world expert on *Eriogonum* pulled an all-nighter working on his treatments for the *Intermountain Flora* and the *Flora of North America*. Peter Achuff, Parks Canada botanist, came by to look at *Cirsium*.

## Allison Holt

### Herbarium Student Employee

We are accustomed to the herbarium being mentioned in scientific articles, but MONTU has recently been the focus of a very different kind of publication. Our very own work-study student, Allison Holt, has written a non-fiction essay based on her experience in the herbarium. The article, titled *Sprouting Roots: A Growing Relationship to Plants*, is about her personal experience of learning about and working with plants.

Allison is a graduate student in the Environmental Studies Program and is specializing in environmental writing. Her goal is to educate on natural history and environmental topics. As a creative writer she draws inspiration from a variety of sources, including mounting plants in the herbarium.

No doubt she has also been inspired by her interesting and varied experiences before coming to Montana. She grew up in hot and humid Tennessee, then traded the South for the arctic winter temperatures of St. Paul, Minnesota to obtain a degree in environmental studies and biology at Macalester College. After 4 years of lectures, labs, and studying she yearned for the outdoors. She then spent 55 consecutive days (that's almost two full months, folks!) in a rigorous North Carolina Outward Bound instructor development course. There, in the Blue Ridge Mountains, she learned backpacking, rockclimbing, kayaking, wilderness navigation, teaching skills and leadership.

Allison then decided to tackle the West. She moved to Albuquerque and worked at both the New Mexico Museum of Natural History and Science and at the Albuquerque Biological Park. She worked as an educator at both institutions, and was able to travel throughout the state presenting educational programs about both plants and animals. Her interest in botany led her to co-author the guidebook *Common and Useful Plants of the Sandia Mountain Natural History Center*. Oh yeah, she also did all the illustrations for the book!

So as to leave no part of the U.S. unexplored, Allison traveled to the Adirondacks in upstate New York. A chance encounter with a loon led her to write and illustrate an environmentally themed children's book, *The Loons of Blue Mountain*

*Lake*. Allison has won numerous awards in high school and college art shows and is now tackling a new challenge, oil painting! Please say "Hi" to our accomplished student employee the next time you're in the herbarium!

Dave Dyer



Allison Holt filing specimens

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...*Moss* (Continued from page 4)  
after 1965.

F.J. Hermann and W.B. Schofield were Montana moss hounds in the 1960's and 1970's. These prominent botanists collected mainly from western Montana, including Glacier National Park. Many of Hermann's collections, the basis for his publication of the moss flora of Glacier National Park, are included in the herbarium. Wilf Schofield spent summers at the Biological Station on Flathead Lake and collected liberally from western Montana. Schofield's collections include numerous specimens from the Park and other areas of northwestern Montana.

More recently, Bruce McCune, a former graduate student, deposited many of his moss collections from the Swan Valley and Bitterroot Range in the herbarium. Although Bruce is well known as a lichen expert, few people seem to know that he also is one of the most prolific moss collectors in recent Montana history. Other recent mossers who have contributed specimens to the herbarium include Peter Lesica, Gerald Moore, and me. This year, retired botany professor David Bilderback contrib-

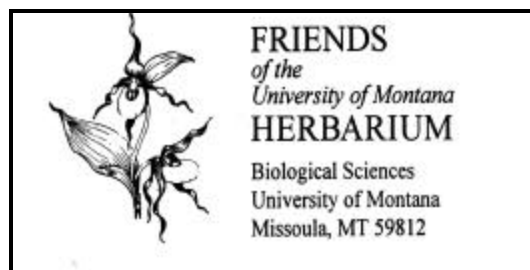
uted 800 specimens to the herbarium, many from western North Dakota.

Noteworthy in their absence from the herbarium are collections by two of my moss heroes, R.S. Williams and Seville (Bill) Flowers. Williams collected mosses in Montana in the late 1800's and deposited them at the New York Botanical Garden Herbarium. Dr. Flowers made numerous collections from western Montana when he taught a bryology course at the Biological Station on Flathead Lake in 1967. I was fortunate enough to be his teaching assistant for that course. Throughout the summer, mosses collected by students and Dr. Flowers were housed in shoeboxes at the Biological Station. Several years ago, I went to the Biological Station to try and find these collections but was unsuccessful. It was my intention to obtain these collections and transfer them to the herbarium since there seems to be no interest in mosses at the Biological Station now-a-days. Upon Dr. Flowers' death, many of his collections, including many Montana mosses, were deposited at the herbarium of the University of Colorado.



**Yes!** *I want to help protect the irreplaceable collections and enhance the facilities of the University of Montana Herbarium*

- |                          |                            |              |
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