



FRIENDS

OF THE UNIVERSITY
OF MONTANA

HERBARIUM

Spring 2007

Fred Alexander Barkley: MONTU 1937-1941

by James Habeck

As soon as C. Leo Hitchcock resigned from the University of Montana, having left for the University of Washington, hiring his replacement must have been just a phone call away. Washington University (WU) in St Louis had gained national recognition for producing well-trained plant systematists. Professor Jesse M. Greenman maintained a stable of graduate students in all stages of their doctoral studies. Dr. Hitchcock himself had been a product of this WU program. In the late 1930's, when Hitchcock left UM, all Botany Department chairman Warren Severy needed to do was to "ask" Professor Greenman for a "replacement." That replacement was Dr. Fred Alexander Barkley.

Fred Barkley's appointment was announced in a September 1937 *Kaimin* report. He had completed his Ph.D. degree at WU in spring of 1937, and was hired by Chairman Severy as an Instructor of Botany and Curator of the Herbarium.

Fred Barkley was born November 4, 1908, in Hobart, Oklahoma, so he was 29 years old when he joined the UM botany faculty. He had completed his B.A. (1930) and M.S. (1932) at the University of Oklahoma. While at UO, Barkley held the Ray M. Balyeat Fellowship in Allergy, a status he continued to maintain when he attended Washington University.

Fred Barkley's success as a botanist is well documented in the record of his publications, in botany department reports, and in the *Kaimin*, the University of Montana campus newspaper. While at Washington University Fred Barkley's studies focused on the Anacardiaceae, the family that includes sumac and poison ivy. As a graduate student he held the position of University Fellow within the Henry Shaw School of Botany, and also served as an Assistant in Botany within WU's University College. His doctoral dissertation was published in several parts in the prestigious *Annals of the Missouri Botanical Garden*, the "creme-de-creme" of botanical journal outlets. He also pub-

lished in the *American Midland Naturalist* and elsewhere. Barkley claimed his WU graduate studies were inspired by Dr. Ray Blayeat's work on skin irritants, specifically the various phytochemicals produced by plants in the "*Rhus*-complex." His graduate studies took him to Central and South America, where several *Rhus*-complex genera were to be found. Part of his efforts were focused on correcting nomenclatural problems within the Anacardiaceae.

As a member of the UM faculty Fred fell into the routine of teaching botany classes and maintaining the herbarium. The latter, after Hitchcock exited,



FRED A. BARKLEY
instructor in botany

had many specimens needing curation and storage, but case space was limited. Getting additional cases was a chronic problem. Fred Barkley did well in his teaching assignments. He had taken over Hitchcock's botany faculty role in traveling the western states with senior forestry and range students during spring

(Continued on page 6)

FRIENDS

of the University
of Montana

HERBARIUM



**DIVISION OF
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*

BOARD OF DIRECTORS

Drake Barton
Tara Carolin
Marilyn Marler
Scott Mincemoyer
Steve Shelly, president
David Dyer, ex officio

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 2006. Peter Stickney taught a class on the Ericaceae; Kathy Ahlenslager came all the way from eastern Washington to share what she knows about moonworts; and Peter Lesica gave a class on Montana paintbrushes.

Notes from the Board

It's no secret that the entire collection of Montana plants housed at the university herbarium is currently being reviewed. Determinations are being assessed, geographical distribution noted, and where a collection falls outside of the species' morphological range, it is scrutinized as possibly being a new taxon (either as variety or species). The plan is to eventually have an updated flora of Montana that reflects all currently known plants in the state and provides distribution information.

Possible fallout from this body of work includes the introduction of new names for familiar plants, or even for whole genera. For example, will we be left with few to no members of the *Aster* genus since other authors have recently broken them into several genera? Will our wheat-grasses continue to be spread over the nomenclature map or could we possibly have a genus reunion? One fairly reliable rumor has it that the well-known and immanently pronounceable genus *Arabis* will be dramatically reduced and most of the species will find themselves in the genus *Boechea*. Sad but true; a case where the evidence for the change cannot be denied.

All this nomenclatural musing brings me to the point I really want to make, which is, what happens when a plant is found in the state but is not found in any of the regional floras? One case is *Lesquerella klausii* (soon to be *Physaria*?). When first collected it most closely matched *Physaria geyeri* and was so labeled for a time, for lack of a better name. Specimens were sent to Reed Rollins and Montana eventually not only received a new plant out of the deal, but a state endemic to boot. At that point it was fairly easy work to annotate the collection sheets and get an idea of the distribution and relative abundance of the new species in the state, thanks to the many collections housed at the herbarium.

More recently I found out that one *Antennaria* I had in my collection from three locations and was calling *A. umbrinella*, was really *A. aromatica*. When I collected the plant there was no *A. aromatica* in any of the regional floras, so I reluctantly lumped them in with what fit the best. This species has been collected over the years and was scattered throughout the *Antennaria* folders housed at MONTU. Using the collections at MONTU and other herbaria, this plant was named in 1984, but the earliest it was included in a flora from any surrounding state was Bob Dorn's 1992 second edition of *Vascular Plants of Wyoming*. Once all the specimens were assembled together in the correct folder we were once again able to learn something about the distribution and relative abundance of this plant in the state.

Might other treasures await discovery in the cabinets of the herbarium? A certain perplexing *Draba* comes to mind, but that is a future story. Certainly our knowledge of the state's flora will increase as a result of the work of many folks collecting and storing their collections at MONTU over many years.

Drake Barton

MONTU People

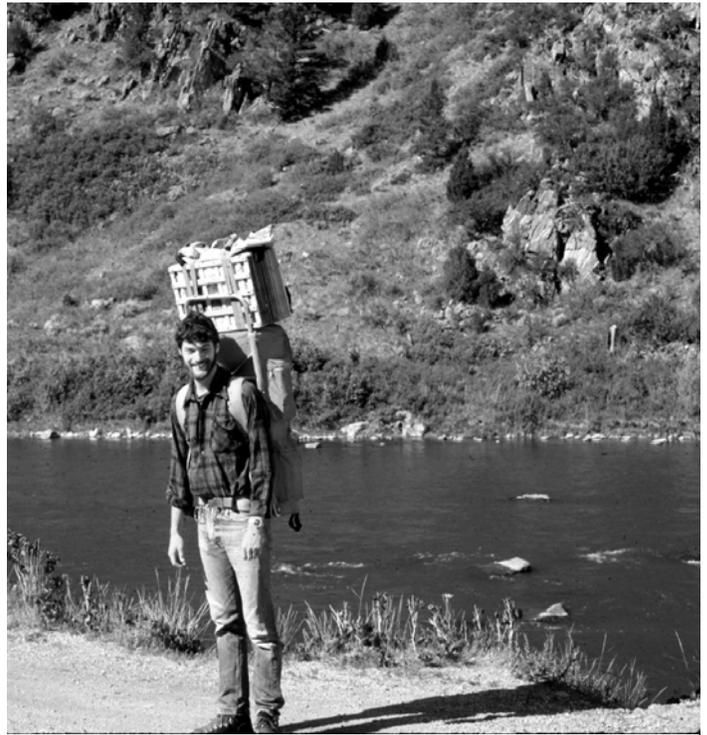
...Porter P. Lowry II

Botany graduate students have been an important source of collections for the University of Montana Herbarium. But not all of the grad students contributing to our herbarium have been from UM. One of our most significant collections from the southwest part of the state was made by Porter (Pete) Lowry while he was a graduate student at the University of Illinois. His Montana collecting adventures were truly serendipitous.

Pete grew up in several towns in the Willamette Valley of Oregon. He attended Portland Community College for two years and then moved to Illinois in 1974 to finish his undergraduate degree in botany at the University of Illinois at Champaign-Urbana. He continued on at U. of I. for an M.S. degree, monographing the genus *Osmorhiza* (sweet cicely) under the guidance of Almut Jones. The first year as a grad student at U. of I. he went home to Portland for the Christmas holidays and met a French girl from Paris while taking a bus. H el ene eventually became his wife. A year and a half later in the summer of 1978, Pete and H el ene were on their way back to Illinois and decided to take a detour through the Centennial Valley of southwest Montana. They camped on Upper Red Rock Lake and happened to meet a woman working for the Bureau of Land Management who was working in the area. She told Pete that BLM was starting to work on its management plan and needed to do plant survey work for three proposed wilderness areas: the Centennial Range, Humbug Spires south of Butte, and Beartrap Canyon of the Madison River. Pete told her she really needed complete inventories of the three areas and talked her into hiring him. He must be a pretty persuasive guy.

Pete finished his monograph on *Osmorhiza* in the spring of 1979. Then he and his dog got in his Volkswagen bus and took off for Montana. He spent the next five months exploring and collecting plants in some wild country in Beaverhead, Madison and Silver Bow Counties. H el ene joined him in June. His first collections didn't come from any of the wilderness study areas but rather from some BLM land north of Boulder in mid-May where he collected the earliest of our spring wildflowers, including sagebrush buttercup (*Ranunculus glaberrimus*) and pasqueflower (*Anemone patens*). Later that month he stopped at the Humbug Spires trailhead just off I-15 and collected prairie smoke (*Geum triflorum*) and larkspur (*Delphinium bicolor*). The last day of the month found him collecting willows and currants at the mouth of Beartrap Canyon. He must have figured out that Beartrap Canyon was the warmest of his three study sites because the following week Pete was back hiking in from the north end. He found *Conimitella williamsii*, a saxifrage found only on limestone and nearly endemic to Montana. In mid-June he made another trip to the Humbug Spires area, and finally he and H el ene made it back to the campground at Upper Red Rock Lake for the summer solstice. He collected willows around the lake and gooseberries up in the lower elevations of the Centennial Range.

Pete continued his peregrinations among the three wilderness study areas. In mid-July he collected red columbine (*Aquilegia formosa*) and *Stellaria jamesiana* in the Centennial Range. Both are listed as species of concern by the Montana Natural



Porter Lowry at Beartrap Canyon in 1979

Heritage Program, and the latter has only been collected twice in Montana. In late July he hiked into Blair Lake at 8,100 feet in the Centennials, and in late August he climbed Sheep Mountain at 9,700 feet. The main set of Pete's collections was deposited at the University of Illinois; MONTU has about 500 of the duplicates. He compiled an annotated list of 242 species for Beartrap Canyon and published it in the journal *Phytologia* in 1981.

After five months living in the sagebrush Pete and H el ene went to Portland and Pete got together with some of his old high school buddies and started a business making lattice for houses and gardens. The business eventually was a great success, but Pete only stayed long enough to get things going. The following fall he was off to St. Louis to begin work on a Ph.D. at Washington University and the Missouri Botanical Garden. Pete had gained experience with the Apiaceae by studying *Osmorhiza*, so he and his advisor, Peter Raven, decided he should specialize in the closely related Ginseng Family, the Araliaceae, and should do his work in New Caledonia, an island 1,000 miles off of the east coast of Australia. Although New Caledonia is small by Indonesian standards, it has a diverse and interesting flora due to its unusual geology. Five years later after numerous trips to the South Pacific, Pete was awarded a Ph.D. and took a position at the Missouri Botanical Garden. His first assignment was halfway around the world in the other direction – Madagascar.

Madagascar has one of the most interesting and diverse floras on earth. Doing an inventory of this unique and immense flora requires a lot of field work, but there is also a lot of herbarium work involved. Madagascar was a French colony at one time, so the largest single repository of plant collections is the National Museum in Paris. So Pete and H el ene took up residence in her hometown, and they now live in the house she grew up in. Pete continues to manage the Madagascar flora project, as well as

(Continued on page 4)



MONT NEWS BRIEFS

New Acquisitions

Jim Habeck: three sheets of *Ranunculus glaberrimus* from Ravalli Co., MT.

U.M. College of Forestry: 165 sheets from AK and MT transferred to MONTU.

U.M. College of Forestry: 17 sheets from Greenland, collected by Karen Brink in 1978.

Bonnie Heidel: nine sheets from Jackie Poole Collection and one sheet from Wayne Phillips.

Peter Lesica: 539 sheets from Montana.

Roger Rosentreter: 113 lichens from western U.S. and internationally.

University of Northern Iowa: two type specimens, of *Physaria eriocarpa* and *P. pachyphylla*.

Loren Bahls: 200 diatom slides from the Pacific Northwest.

Royal Botanic Gardens, Kew – Millennium Seed Bank Project: one sheet of *Salix amygdaloides*.

John Pierce: two specimens from MT, *Prunus americana* and *Lomatium geyeri*.

Virginia Vincent: two sheets of *Penstemon* and *Pedicularis* from MT.

Exchange Acquisitions

Rocky Mountain Herbarium: 868 sheets from WY and CO.

University of Washington Herbarium: 58 sheets from OR, WA and MT.

Snake River Plains Herbarium: 101 sheets from ID.

New York Botanical Garden: 166 sheets from NV.

Loans for Research

excluding loans for annotation, illustration, teaching, etc.

Bruce Parfitt, University of Michigan – Flint: 143 sheets of *Dryas*, *Fallugia*, *Chamaerhodos*, and *Coleogyne* for Flora of North America treatment.

Rick McNeill, University of Idaho: Four sheets of *Lomatium leptocarpum* for research on *Lomatium* systematics in Northern Idaho.

Mary Barkworth, Utah State University: Three sheets of *Bromus* for Flora of North America treatment.

Wease Bollman, Rhithron Associates, Missoula: 100 diatom slides from the Montana Diatom Collection for publication.

Peter Zika, University of Washington: Two sheets of *Prunus emarginata* from 1894 for research on leptotypification of *P. emarginata* synonyms.

Robert Soreng, U.S. National Herbarium, Smithsonian Institution: 11 sheets of *Poa leptocoma*.

Karen Searcy and Jorge Mena-Ali, University of Massachusetts: 72 sheets of *Silene* for assessment of the distribution of anther-smut disease in Caryophyllaceae.

Publications Based on MONTU Specimens

Miller, J. M. and K. L. Chambers. 2006. Systematics of Claytonia (Portulacaceae). Systematic Botany Monographs 78: 1-236.

Several Flora of North America treatments in the Asteraceae (Vols. 19-21) used loans from MONTU, including *Hymenoxys* by Mark Bierner and *Symphyotrichium* (= *Aster* sensu lato) by Luc Brouillet et al.

Examples of Information Requests

Brian Carstens, University of Michigan: label data for *Tsuga* and *Thuja*.

Allison Graff, American Herbal Pharmacopoeia: information on *Scutellaria*.

Amy Angert, University of Arizona: label data for *Mimulus*.

Royal Alberta Museum: information of proper temperature and humidity for collections.

...Lowry (Continued from page 3)

doing research in New Caledonia from Paris. In addition to managing and training dozens of people in plant collecting and identification, geographic information systems and conservation, Pete continues his work on the Araliaceae. Recent molecular phylogenetic studies provided insights into the evolution and biogeography of the group and resulted in several generic realignments.

Selected publications:

Lowry, P. P. 1981. A floristic survey of the Bear Trap Canyon, Madison County, Montana with a discussion of author citations using the connecting words "in" or "ex." *Phytologia* 48: 81-94.

Lowry, P. P. and A. G. Jones. 1984. Systematics of *Osmorhiza* Raf. (Apiaceae: Apoideae). *Annals of the Missouri Botanical Garden* 71: 1128-1171.

Peng, C. I. and P. P. Lowry (eds.). 1998. Rare, threatened and endangered floras of Asia and Pacific rim. Institute of Botanical Academia Sinica Monograph Series 16. Taipei, Taiwan.

Yi, T., P. P. Lowry, G. M. Plunkett, and J. Wen. 2004. Chromosomal evolution in Araliaceae and close relatives. *Taxon* 53: 987-1005.

2007 FRIENDS OF THE UM HERBARIUM ANNUAL MEETING

The Annual Meeting of the Friends of the UM Herbarium will be held Saturday, October 27 from 10:00 a.m. to 2:00 p.m. 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.

Don't Forget to Pay Your Dues!

If you haven't already done so, send in your membership renewal. You won't want to miss a single issue of the newsletter or miss out on what is happening at the herbarium. There is a membership form on page 8. Gift memberships are also available and are a great idea for friends.

Flora of Montana On-line 2006 Update

After several months of getting our bearings with the database software and establishing protocols for entering data, the Montana Flora On-line Project went into high gear during the summer months and the pace has kept up since then. Now, after about 18 months, label information from approximately 25,000 of the estimated 70,000 Montana specimens has been entered into the database. Determination and annotation is now at the Apiaceae, while data enterers are working in the Fabaceae. We have created some new space in the cabinets by de-accessioning nearly 700 specimens. Some of these are duplicates while others are tropical species that we felt were over-represented in the collections. These de-accessioned specimens will be given to other herbaria.

Zia Maumenee, Elizabeth Crone, and Lila Fishman presented a demonstration of the herbarium database and the associated website being developed at the board of directors' meeting last November. Lila gave an introduction to the grant. Zia demonstrated the three ways to access data: (1) website pre-selected subset of specimen information, (2) website database query with limited fields available, and (3) *Specify* database query of all data available only in the herbarium and a limited number of other locations. Zia explained how quality of data entry is controlled. Members did a couple of sample queries.

Now the Montana Flora database website is nearly ready for review. We have made almost all of the changes that were recommended internally and will have the site online within two months. At that point we expect there may be some errors in the database itself that will be corrected as they are discovered, and we will need to do some tweaking of the website. A group of people will be checking the database and website following the initial launch. Anyone is welcome to e-mail Zia (zia@maumenee.net) with questions or personal reviews of the site. The website is a work in progress. Although data entry is only one-third complete, we hope you will take a look and see what you can find. When it's ready there will be a link on the herbarium page at the University of Montana website.



An Herbarium Curiosity

Sedum stenopetalum, collected in Glacier National Park, was found sending out hair-like roots from the tiny plantlets in the leaf axils after it was pressed, mounted, and stored in the MONTU collection.

The database has already come in handy on several fronts. Recently we unearthed a stack of unmounted collections made by Eugene Addor for his M.S. project over 50 years ago (see last year's newsletter). We needed to know if these were duplicates, because we trade duplicates rather than mount them. We queried the database and found the specimens were duplicates of ones that were already mounted and in our collections. Having the database saved us a lot of time. One of the biographies in this newsletter is about Porter Lowry. "Pete" was able to tell us how many specimens he collected in Montana but not how many were deposited at MONTU. We used the database to estimate his contributions to our herbarium by extrapolating from the 30% of the entire collection that is already entered. One day soon we will be able to determine exactly how many specimens he contributed. We also used a printout of his label data to trace his whereabouts during his summer of collecting here in Montana.

The determination and annotation process has turned up a number of interesting finds since our last report. These include ten state records; seven of these are native: *Agrimonia gryposepala*, *Eriogonum microthecum simpsonii*, *Oxalis stricta*, *Rumex fueginus*, *Rumex hymenosepalus*, *Rumex stenophyllus*, and *Sedum borschii*, and three are introduced: *Lathyrus sylvestris*, *Lysimachia nummularia*, and *Sida spinosa*. The *Rumex hymenosepalus* specimen was collected nearly 120 years ago by Francis Kelsey around Helena, several hundred miles north of what is currently its northernmost station. Two others collections were of particular interest. Almost 110 years ago Morton Elrod collected *Saxifraga serpyllifolia* (= *S. chrysantha*) on Lolo Peak in the Bitterroot Range. These days the only Montana populations are from the Beartooth Range even though Klaus Lackschewitz explored the northern Bitterroot extensively. It appears that this arctic disjunct has disappeared from the Bitterroot. *Camissonia tanacetifolia* has been reported for Montana, but vouchers were never found until this year when two misidentified specimens came to light; both were made over 60 years ago. Now we can say with certainty that this plant is a member of our native flora.

Peter Lesica and Zia Maumenee

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.

Eugene Addor
Shannon Kimball
Mamie Smith

...Barkley (Continued from page 1)

quarters. One student described Fred this way: "Dr. Barkley's botanical enthusiasm resulted in such heretofore unknown physical powers that he kept us in a perpetual dog trot over hill and dale, boulders and brush. The more hardy individuals would catch up with him only to hear his concluding remark of 'Remember this species.'"

During the late 1930's and into 1940, Fred Barkley traveled extensively to other herbaria and university research laboratories at Minnesota and Chicago, studying topics related to plant toxins. He won grants to support this travel. He also collected plants throughout the West, including western national parks. MONTU has Barkley collections from Arizona, California, Oklahoma, Nevada, Texas, Utah, and Mexico. In one academic year, a chairman's report claimed he added over 4,000 sheets to MONTU, and sent out over 6,000 sheets in exchanges with other herbaria. It seems he did relatively little collecting in Montana because a search of the MONTU database reveals only about 100 Montana specimens Barkley collected; all from 1937 through 1940. A majority of these were collected in the nearby Missoula, Bitterroot, and Blackfoot mountains and valleys. But he also made collections at Lolo Hot Springs, Lolo Pass, Seeley Lake, Drummond, and Glacier Park, including Logan Pass, where he collected heavily during September 1937, shortly after he arrived at UM. The latter alpine area had recently been made accessible via the newly constructed Going-to-the-Sun Road.

In 1940 Barkley discovered a rare algae species in the Bitterroot Valley; it appeared to be a blue-green, based on its color, but Fred discovered it belonged to the red algae group, which usually inhabit oceans.

He expressed pride in the achievements attained by his undergraduate students. They pursued graduate studies elsewhere; some at his old alma mater in Oklahoma, and others had continued at UC-Berkeley, the University of Wisconsin, Columbia University, and many other universities. Obviously Fred expended some effort in keeping track of them! He was particularly proud of those students who went on to do graduate work in pharmaceutical chemistry and those who found employment in public health laboratories, areas related to his own interests in plant toxicology.

Fred Barkley spearheaded the 1941, 20th Anniversary of the Lambda Chapter of the Phi Sigma Biological Honorary Society held on the UM campus. He was the "chief push" of the event and was given the honor of introducing the banquet's guest speaker, Dr. Paul Sears, one of the nation's most famous ecologists. In a published report of this Phi Sigma event, Fred Barkley prepared a lengthy and detailed historical account of the biology program at the University of Montana, recounting the contributions of its founder, Morton J. Elrod, and all those who followed in Elrod's footsteps. This valuable history account was pub-

lished in a special edition of *The Biologist*, Vol. XXIII, No. 1, October 1941.

Joining the UM faculty in 1937, with a completed Ph.D., it was routine at that time for Barkley to have been hired as an Assistant Professor; but he wasn't. In spite of his achievements and his potential, Barkley didn't seem to impress Botany Department chairman, Warren Severy. In a March 1939, department report to the university president, Severy described Barkley this way: "Dr. Barkley is still young, chronologically and mentally. I don't think anyone can question the quality of his teaching and the value of his research work. I do think that he fraternizes too intimately with some students and that he is not stabilized as yet in some of his attitudes with regard to University problems or problems in society generally. I do feel that he deserves promotion to Assistant Professor on the basis of the quality of his teaching, but if he remains I shall not recommend his promotion to Associate Professor until such time as he shows greater maturity in judgment and certain social traits than he does at the present time." Fred Barkley was a homosexual. An acquaintance of Fred Barkley I contacted described him as "leading a troubled life because he was gay...back before it was accepted." This same person indicated Fred's lifestyle may have contributed to his "itchy feet," moving from job to job. He abruptly took a leave of absence from UM in 1942, and spent the WWII years in Austin, Texas at the Texas Public Health Laboratory, Diagnostic Division. He held posts in South America and in Iraq, and later was employed at Warner-Chilcott Laboratories, a New Jersey pharmaceutical firm; while maintaining affiliations with the New York Botanical Garden.

Fred Barkley ended his professional career as a professor at Northeastern University in Boston, where he became known for his work on members of the Begoniaceae and the taxonomy of cultivated plants. Dr. Barkley died on June 24, 1989, in his home state, at Tecumseh, Oklahoma, age 81. His passing was noted in botany circles by his former classmate, Dr. Elbert L. Little, chief dendrologist of the U.S. Forest Service.

- Barkley, F. A. 1937. A monographic study of *Rhus* and its immediate allies in North and Central America, including the West Indies. *Annals of the Missouri Botanical Garden* 24: 265-498.
- Barkley, Fred A. and M. J. Reed. 1939. Studies in the Anacardiaceae - IV. *American Midland Naturalist* 22: 209-211.
- Barkley, F. A. 1940. Studies in the Anacardiaceae -V. *American Midland Naturalist* 24: 680.
- Barkley, Fred A. 1941. Biology and Phi Sigma at Montana State University. *The Biologist*, Special Edition, Vol. XXIII, No. 1, pp. 19-37.

New Englanders Invade the Herbarium!

What do this year's herbarium work-study students have in common? They grew up about 85 miles apart in northern New England! Alice Ryan hails from Laconia, in the lake region of central New Hampshire, and Nathan Taylor is from the coastal town of South Portland, Maine. They each found their way to the University of Montana and ended up at the herbarium, with good results for us!

Alice is a double major in biology and education. Her eventual goal is to teach biology and science in a middle or high school. She has already worked to design a school curriculum to incorporate herbarium collections into science classes. Alice has used her energy and enthusiasm to accomplish many things so far at the herbarium, including catching up on almost all of the backlog of specimens to mount, re-curating the fungi collection by upgrading the storage for the specimens and conducting pest control, and spending most of a summer sorting through the entire Sherman Preece collection (all ten cartons of it) that was brought to us from U.M.'s Flat-head Lake Biological Station.

During Alice's "spare time" she is President and Founder of the U.M. group University Crafters, is the food coordinator for the International Food and Culture Festival held every March at U.M., and is owner of Alywolf Creations. Alice previously worked for four years in a bird research lab at the university. She and her husband Dan also keep busy raising their son Kevin.

Nathan Taylor is a senior in environmental geology, and has an interest in all aspects of natural history. Nathan has been at the herbarium since last fall semester. His goal is to enter graduate school to study atmospheric science, but not until after he hikes the entire Pacific Crest Trail from Canada to Mexico! He has already completed one long distance hike: the length of the Appalachian Trail, over 2,000 miles from Georgia to Maine. His only complaint about that arduous hike, which started in March in Georgia, was that he was just ahead of the spectacular Catawba Rhododendron bloom in the Roan Highlands of Tennessee. I guess he just hikes too fast! Nathan also spent five summers at Glacier Park working in the Many Glacier region.

Please say "Hi" to our accomplished student employees the next time you are in the herbarium!

Dave Dyer



Alice Ryan and Nathan Taylor, our hard working work-study students.

Visitors to the University of Montana Herbarium in 2006

General Public and Private Consultants

Drake Barton; Steve Kohler; John Pierce; Jann Clouse ,Target Range School; Karen Shelly, TNC; Cedar Brant, Ecosystem Management Research Inc.; Claire Emery

UM Researchers and Students

Jennifer Gremer; James Habeck; Lila Fishman; Michael Gundle; Scott Mincemoyer, MTNHP; Adam Lieberg

Out-of-town Academic Researchers

Sarah Brustkern, Washington State University
Pamela Kittelson, Gustavus Adolphus College
Mamie Smith, University of Idaho

Federal, State, Tribal, NGO Biologists

Susan Rinehart, U.S. Forest Service
Darlene Lavelle, U.S. Forest Service
Peter Stickney, U.S. Forest Service
James Riser, U.S. Forest Service
Steve Shelly, U.S. Forest Service
Lois Smith, Salish & Kootenai Tribe

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

- | | | |
|--------------------------|----------------------------|----------------|
| <input type="checkbox"/> | REGULAR MEMBER | \$15 |
| <input type="checkbox"/> | SUSTAINING MEMBER | \$25 |
| <input type="checkbox"/> | CONTRIBUTING MEMBER | \$50 |
| <input type="checkbox"/> | ORGANIZATION | \$50 |
| <input type="checkbox"/> | LIFE MEMBERSHIP | \$300 |
| <input type="checkbox"/> | SPECIAL GIFT | \$_____ |
| <input type="checkbox"/> | HONORARIUM FUND | \$_____ |



Dues are for a period of **two** years. All contributions to the Friends are tax deductible to the full extent provided by law. All checks should be made payable to UM Foundation/Friends of the UM Herbarium.

Send checks to:
Herbarium
Division of Biological Sciences
The University of Montana
Missoula, MT 59812



FRIENDS
of the
University of Montana
HERBARIUM
Biological Sciences
University of Montana
Missoula, MT 59812