

MUSE U.M. NEWS

JANUARY 1997

No. 8

NEWS AND INFORMATION FROM
THE UNIVERSITY OF MONTANA ZOOLOGICAL MUSEUM

NOTES ON USE OF THE MUSEUM

New reference works have been obtained so that we may reorganize the bird and mammal collections according to more current taxonomy. The **bird** collection will be arranged according to "Birds of the World: A Check List by James F. Clements, fourth edition, 1991, Ibis Publishing Co. This includes a supplement which has been updated as of 28 December 1996. The **mammal** collection will be based on "Mammal Species of the World: A Taxonomic and Geographic Reference", Don E. Wilson and DeeAnn Reeder, eds., 1993, Smithsonian Institution Press. This will update the texts currently used to arrange the collection by 10-15 years. The reorganization will be conducted this year. Both volumes can be found in the Museum.

Users of the Museum and Herbarium are asked to remember to close and firmly latch all cabinet doors when you are through working in a cabinet. Museum cabinets are designed to be as airtight as possible to prevent insects, dust, and air pollutants from coming into contact with the specimens. If doors are not properly latched, it compromises the protection of the contents. Cabinet doors are our first line of defense against invading museum pests!

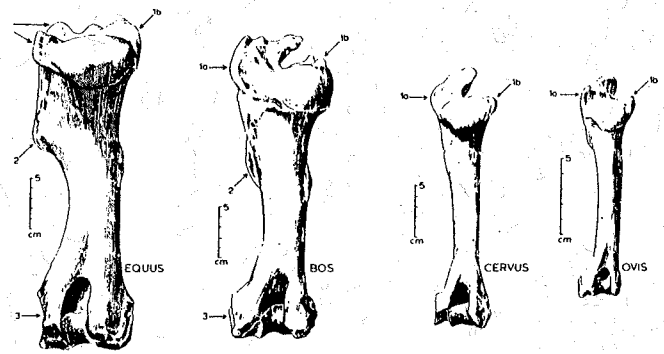
Please remember, too, that all new specimens placed in the Preparation Lab or in our freezers must be brought to the attention of the Collections Manager. New specimens are now accessioned at the time of acquisition by the Museum. We still sometimes find animals in bags around the lab or in the freezers with no data, and with no indication of the intended disposition of the specimen. When these are left on counters, they can decompose before we realize that they are abandoned. This causes insect problems as well as great distress to those with whom we share the second floor! The Museum holds several federal and state permits, and we are legally responsible for the contents of our freezers.

MUSEUM OPEN HOUSE

In conjunction with the museum tour program, we will again be conducting a Museum Open House during spring semester. It is tentatively planned for late February. Watch for posters and further announcements. It will be open to students, faculty, staff, and the community.

FRIENDS OF THE HERBARIUM

If you are not yet aware of the Friends of The University of Montana Herbarium, please see the reverse of this newsletter for more information. We are currently involved in a fund-raiser to purchase new storage cabinets for the Herbarium. These are critically needed to help prevent damage resulting from over-crowded conditions. We encourage your membership and your contributions towards the cabinet drive.



MUSEUM ASSISTS IN FORENSIC CASES

The excellent comparative skeletal collection at the Zoological Museum is a valuable resource for a variety of research purposes. One area that has seen a lot of activity in the last year is the identification of skeletal remains that are regularly discovered across the state. Skeletal remains, of unknown origin or suspected as being human, are often routed from county sheriff's offices, to the Montana State Medical Examiner in Missoula, and to the Department of Anthropology at UM. Specimens that are determined to be non-human are then forwarded to the Museum for correct identification.

A comparative collection is essential to correctly identify a specimen. There are few published manuals available that can be used to identify skeletal specimens, and they tend to be incomplete and with only line drawings. It's difficult to identify a 3-dimensional object with a 2-dimensional drawing! Also, a manual doesn't illustrate the range of diversity that can be present. Age, sex, and health of an animal, and individual variation, can all change the appearance of a bone. The collection is especially useful when working with small fragments.

In 1996, the museum used the collection to identify skeletal remains from five forensic cases. One case involved 5 bone fragments uncovered in a garden in Helena. All the fragments showed evidence of butchering and they turned out to be, fortunately, deer and cattle remains. In another case, two containers were confiscated from a house during a narcotics investigation. Each container was full of cremated bone fragments. The State Crime Lab wished to know, first, if they were human and if not, what were they? First, the identifiable elements were sorted from the hundreds of small fragments. This amounted to only a handful of bones, but was enough to show that one container contained the remains of one large, domestic dog and the other was the remains of two smaller dogs. Further, we were able to show that the remains were not from the Gray Wolf, a state endangered species, or any other of Montana's wild canids.

Often a case will involve only a single bone. Last summer, a physician visiting Montana found a bone while on a fishing trip. Suspecting that it may be human, he sent it to the State Crime Lab. On examination at the museum, it turned out to be the humerus of an immature deer. Due to the rough similarity in size between deer and human long bones, single bone finds are often the remains of deer.

Though most skeletal finds are common mammals such as deer, cattle, bison, or horse, we are nevertheless interested in examining bone specimens. Not only can we conclusively say that bones suspected of being human indeed are not, which is critical for law enforcement, but in the past we have identified specimens that turn out to be unusual species or new fossil finds of Ice Age mammals.

THE HERBARIUM

The Herbarium at The University of Montana is an irreplaceable resource for the study of the botany and plant ecology of Montana. It contains over 120,000 plant specimens and has the largest and best representation of the flora of the Northern Rocky Mountains in the world. The Herbarium is particularly well-known for its outstanding collections from the alpine and montane regions of Montana.

The Herbarium is a major repository of botanical specimens for researchers at The University of Montana, Montana Natural Heritage Program, Montana Native Plant Society, U.S. Forest Service, and private consultants. The Herbarium serves as a primary reference and data source in the region for these organizations. It also serves as a vital resource for rare plant conservation studies conducted by private consulting companies and government agencies.

Through the loan and exchange programs, specimens are available to herbaria throughout North America. Also, UM students and faculty turn to the Herbarium for undergraduate training and graduate research.



THE FRIENDS

The Friends of the UM Herbarium was organized in 1995 with the mission to protect and enhance the collections and facilities of the Herbarium. The Friends will assist in securing funding for the needs of the UM Herbarium and will help promote and act as an advocacy group for the Herbarium. The University of Montana Foundation manages our funds, but all decisions on expenditures made are made by the Friends.

CABINET DRIVE

The first goal of the Friends is to acquire new herbarium cabinets for the collections. Currently, 120,000 specimens are stored in 62 cabinets designed to hold no more than 100,000 sheets. Also, the Herbarium acquires about 1,000 new specimens each year. Obviously, storage cabinets are very crowded and specimens are at risk for damage. Acquisition of 25 new cabinets will allow the collections to be properly stored and should provide adequate storage for the next ten years.

Contributors of \$900 or more to the cabinet drive may choose to dedicate an herbarium cabinet. A brass plaque will be placed on the cabinet door with the dedication (e.g. Contributed by Xerox Corporation, Dedicated to the memory of Herb Barryum, etc.). Donors may combine contributions to purchase a cabinet.



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

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 UM Herbarium. If you are contributing to the cabinet fund, please write "Herbarium Cabinets" in the memo space on your check.

Regular Member	\$15	Name _____
Sustaining Member	\$25	Street _____
Contributing Member	\$50	City/State/Zip _____
Organization	\$50	Phone _____
Special Gift	\$ _____	
Cabinet Fund	\$ _____	
Dedication	If \$900 or more	

FRIENDS
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