

**Bell Museum of Natural History  
University of Minnesota Collections  
Management Policy**

Revised and adopted November 2013

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## **Introduction**

The “Museum of Natural History” (later the “James Ford Bell Museum of Natural History”) was established by state legislative mandate in 1872 to collect, preserve, skillfully prepare, display, and interpret Minnesota’s diverse animal and plant life for scholarly research and teaching and for public appreciation, enrichment, and enjoyment. The Herbarium (plants, algae, fungi and lichens), which was previously under the direction of the Dept. of Botany/Plant Biology, was formally incorporated into the Museum in 1996. The Museum’s governance belongs, by state legislative designation, to the University of Minnesota.

As Minnesota’s state natural history museum, our mission is to discover, document and understand nature and promote informed stewardship of our world.

Collecting, performing research, and teaching are the primary goals of the Bell Museum’s scientific curators, and these endeavors serve in turn to inform the Bell Museum’s public outreach activities. This unique synergy distinguishes the James Ford Bell Museum of Natural History as an institution that performs the following:

- *maintains* and develops excellent, comprehensive scientific collections
- *produces* timely, cutting-edge research
- *teaches* new generations of natural history experts, consultants, and informed citizens
- *exhibits* the natural life of our state, region, and world in ways that inspire inquiry, appreciation, and enjoyment
- *educates* visitors and participants through customized learning opportunities
- *serves* teachers and students throughout the community, state, and region through innovative, creative outreach and award-winning nationally recognized distance learning programs.

### **Statement of Purpose**

The purpose of the Collections Management Policy of the James Ford Bell Museum of Natural History, University of Minnesota (hereafter “the Museum”) is to guide the proper acquisition of scientific and cultural objects, provide guidelines for their preservation, management, and use, and provide for the continued development and public access to the Museum’s research, teaching and public education collections. The Museum maintains collections specifically to foster scholarly research and enhance formal and informal science education. This Collections Management Policy is designed to guide staff as they balance their obligation to preserve specimens for posterity with the need for expert and public access to these specimens. This Policy is also meant to ensure that legal and ethical obligations, with respect to the Museum’s collections, are met and that all curatorial activities follow standard museum practices as established by the American Association of Museums.

## **Statement of Authority**

The Museum is an academic unit within the College of Food, Agricultural, and Natural Resource Sciences (CFANS), and its governance follows the University of Minnesota governmental structure, ultimately guided by the Board of Regents. The museum director holds an academic, tenured professor appointment at the University of Minnesota. The Director reports to the Dean of the College of Food, Agricultural, and Natural Resource Sciences, who in turn, reports to the Provost. The museum director has the final authority for all activities within the Museum.

All curators of collections have responsibility and decision-making authority in their respective collections. Curators are responsible for acquisitions, accessioning, deaccessioning, specimen care, specimen loans, record-keeping, and other curatorial activities. Curators also supervise curatorial assistants (generally undergraduate and graduate students) and volunteers as needed. Curators are also responsible for ensuring that all activities and personnel follow standard professional museum practices, especially as set forth in this document.

The Museum's Advisory Board is comprised of members of the community who provide advice and support to the Director on museum activities. The Advisory Board does not have fiduciary responsibilities and is not responsible for collections-related activities or policies.

## **Definition and Scope of Collections**

The primary emphasis of the Museum's collections is to build and preserve a series of objects and specimens (hereafter "specimens") that represent the recent flora and fauna of the Upper Midwest, including Minnesota. The Museum's collections are an integral part of specimen-based research programs at the University of Minnesota and elsewhere; in addition, they form the basis of undergraduate and graduate courses in biological diversity. Therefore, another important emphasis is to preserve specimens from other geographic regions and geologic time periods. Finally, the Museum maintains a collection of natural history specimens that enhance the Museum's public programming and exhibits.

### **A. Scientific Collections**

The scientific collections of the Museum comprise approximately 1,200,000 accessioned specimens. Another 4,000,000 entomological specimens are administered through the University's Department of Entomology and are considered an adjunct collection to the Museum. Specimen data (identification, collection information, etc.) from new acquisitions are entered into a database and made available through the Museum's website and/or collaborative network portals. Older specimen data are being captured as funding permits. In addition, digital images of selected plant and fungal specimens are also being made available through websites and network portals.

The foundations of the Museum's collections were those of the state's Geological and Natural History Survey of the late 1800's (part of the federal Morrill Act, which established the University of Minnesota as a Land Grant Institution). The Survey attempted to document the state's animal, plant, and geological resources, and included John H. Sandberg's (local physician and later nationally recognized botanist) private herbarium (approximately 7000 specimens) of northern hemisphere plants. As established by the state Legislature in 1872, the Museum is the state repository for all biological collections (see Appendix 1). Specimens obtained by curators are deposited in the Museum, and research vouchers from other scientists may be accessioned. *All collecting* done by curators is done in their role as employees of the University of Minnesota and, thus, *all specimens* will be deposited in, and become the property of, the Museum or other public institutions as required by grants or permits. Personal collections are not permissible.

The scientific collections do not maintain specimens of living organisms other than fungal cultures. Live organisms are exhibited as part of the educational collections, and

are found in the Touch and See Room and the Rainforest Atrium in the main exhibit building. The Museum does not accept human remains into its collections.

#### Vertebrate Section –

*Birds and mammals* – These collections currently comprise over 45,000 birds and 20,000 mammals. In addition to Minnesota vertebrates the Museum also has important holdings of birds and mammals of the Philippines and Borneo (Menage Expedition, 1890-1893) and Mexico (Dickerman and Warner expeditions of the 1960s and 1970s), birds of Peru and Bolivia, and small mammals of the Yucatan & Patagonia (Birney expeditions of the 1970s and 1990s, respectively).

*Fish* – The fish collection currently contains over 45,000 cataloged lots, containing representatives of 142 families, 480 genera, and 1046 species, the majority of which are stored in ethyl alcohol. There is one primary and seven secondary types, including paratypes of the rare Devils Hole pupfish (*Cyprinodon diabolis*). The collection dates from the end of the 19th century and contains specimens collected by Ulysses Cox, Henry Nachtrieb, Thaddeus Surber, Samuel Eddy, James Underhill and others. These individuals, their students, and colleagues were responsible for building the collections from the 1890's to the present. Early collections focused on fishes of the upper Midwest, especially Minnesota. However, significant historical collections include specimens from the Menage expedition to the Philippines in the 1890's; specimens from Hawaii collected by E.K Jordan in the early 1900's; and many specimens from the continental United States. Many of the taxa represented in these earlier collections are now rare or endangered. Samuel Eddy, James Underhill, Andrew Simons, and their colleagues and students were responsible for most of the growth of the collections since the 1950's. The focus of their collections was also on Minnesota and surrounding states, although recent collecting has increased holdings of North American freshwater fishes from the southeastern highlands of the United States. Current accessions include continuing surveys in Minnesota (50%) and the eastern United States (50%). The fish collection also contains diverse holdings of marine fishes from the Pacific Northwest, Gulf of Mexico, and the Atlantic coast. In addition to the alcoholic collection there is a large collection of pharyngeal teeth from cyprinids (carps and minnows) and catostomids (suckers), a large uncataloged larval fish collection, and a growing collection of dry and cleared-and-stained skeletal material.

*Reptiles and amphibians* – The reptile and amphibian collection contains approximately 19,000 specimens and focuses on the upper Midwest. This collection also contains significant collections from Mexico (Regal collections), the southeastern United States, as well as smaller collections from South Pacific islands and southwestern United

States. The collection includes representative of 40 families, 152 genera, and 360 species. Among the accessioned material is an extensive series of leopard frogs collected by David Merrell in the 1960s. Merrell's frogs established a baseline for studying the history of frog malformations in the Upper Midwest. The collection also contains an impressive series of cleared and stained specimens from these studies that were deposited by the Minnesota Pollution Control Agency.

#### Invertebrate (non-insect) and Paleontology Section –

The invertebrate collection comprises 18,000 lots of mollusks, snails, and crayfish. There is also a small collection of marine specimens that was donated by the Minneapolis Public Library. Recently, the U.S. National Park Service has also begun surveying national park properties within the state and is providing the Museum with its crayfish vouchers. In addition to invertebrates, there is also a small fossil collection (approximately 1000 vertebrate fossils), mainly from Minnesota and Idaho, collected by Robert Bright (Dept. of Ecology, Evolution, and Behavior) and his students in the 1970s.

#### Cryptogamic Section –

*Fungi* – The fungal collection, including living fungal cultures, consists of approximately 100,000 non-lichenized fungi specimens. Intensive scientific investigation of Minnesota fungi occurred from about 1885 to 1910, supported by the Geological and Natural History Survey of Minnesota. Collections made between 1910 and 1960 focused primarily on plant disease fungi. Renewed interest in documenting fleshy fungi began in the 1960s and has expanded in recent years with increased emphasis on the analysis of biodiversity. The following were important collectors who contributed to the Museum: E.W.D. Holway (rusts of North and South America), M.E. Palm (Minnesota slime molds and fleshy fungi), M.G. Weaver, and D.J. McLaughlin and his students (Minnesota fleshy fungi). There is also an extensive collection of plant pathogenic fungi, especially the Minnesota collections of E.M. Freeman, L.T. Dosdall, and others, and rusts deposited by the U.S.D.A. Cereal Disease Laboratory (St. Paul, MN).

This section also houses the barberry-rust host repository collection of the U.S. Dept. of Agriculture.

*Lichenized fungi* – This collection is one of the most comprehensive in the nation, numbering almost 150,000 specimens and specializes in U.S. national parks and national forests. There are also excellent collections from the Sonoran Desert region and from Minnesota (mainly Clifford Wetmore's collections). The collection includes



Bruce Fink's Minnesota lichens, G. Llano's collections, and S.K. Harris' New England lichens, and a good representation of the European lichen flora.

*Algae and bryophytes* – This includes 50,000 mostly Minnesota mosses primarily collected by J.M. Holzinger R.M. Schuster, and J. Janssens and includes the Bescherelle European collection. There are also 13,000 algae of Minnesota, the Pacific Northwest, and South Pacific region collected primarily by J. Tilden.

#### Botanical and Paleobotanical Section –

The botanical collection numbers over 700,000 vascular plants, and includes another 25,000 slides of spores/pollen, a small seed collection of approximately 2000 lots, and approximately 3000 type specimens. The representation of Minnesota's flora is unparalleled, with over 170,000 specimens collected throughout Minnesota's history by E. Nielson, O. Lakela, J.W. Moore, W.R. Smith, and many others. The assemblage of historic flora of the Upper Midwest, including the Dakotas, Wisconsin, and southwestern Ontario, is among the best in the U.S. There is an excellent collection of circumboreal and arctic flora due to past research interests of E.C. Abbe, W.S. Cooper, D. Lawrence, and their students. Additionally there is an excellent collection of historic Pacific island flora, through the efforts of J. Tilden, A.A. Heller, and J.W. Moore, as well as a collection of early Amazonian flora by H.H. Rusby and R. Squires as part of the early exploration (1895-1896) of the Orinoco River delta by the Orinoco Company Limited of Minnesota. J.W. Congdon's collection (over 9,000 specimens) of early California plants (including Yosemite National Park) and approximately 3500 specimens of western US and early tropical Asian flora acquired through J.H. Sandberg's exchanges are other significant collections. Currently, the collection continues to accept specimens collected as part of the MN Department of Natural Resources' County Biological Survey; it is expanding its collection of tropical woody plants (collected by G. Weiblen and associates); and it has processed the extensive South American *Mouriri* collection of T. Morley. This section also houses a small collection of paleobotanical specimens spanning the geologic time scale (155 macrofossils and about 75 thin sections).

#### Frozen Tissue and Fungal Culture Section –

The Bell Museum of Natural History maintains a collection of fungal cultures, and tissue and DNA samples. These tissues are collected and maintained under controlled conditions, and may be made available to the research community, subject to approval by the Curator of Genetic Resources.

Most tissue samples in the Bell Museum collections have been acquired in association with specific research projects initiated by and continuing in the laboratories of our curators: only a portion of these holdings were obtained as a result of general collecting. Consequently, not all cultures and tissue samples may be available to outside researchers, and tissue samples will be loaned only upon evaluation of the project for which the samples are requested. Unlike some preparations, tissue samples are eventually exhausted; thus, it is the responsibility of the curatorial staff to conserve tissue and ensure their wise usage.

Policies regarding the curation and organization of fungal cultures and DNA are still in preparation.

## **B. Educational Collection**

One of our core values is providing accessible, hands-on, and authentic learning experiences through our scientific and educational collections. Currently, the educational collection annually supports over 20 different programs within the museum and is used by an average of 25,000 on-site visitors. Specimens are available to our 50 partner organizations in the upper Midwest, including the Minneapolis Institute of Arts, Weisman Art Museum, Metro State University, and Como Zoo. Some specimens are integrated into traveling exhibits that are viewed annually by an average of 900,000 citizens nationally. The education collection holds an estimated 3,000 non-accessioned mineral, fossil, and biological specimens, as well as a handful of cultural objects such as vintage scientific models.

The collection began in 1968 with the establishment of the Touch and See Room. At its heart was a small collection of biological specimens, including an elephant skull and a polar bear skin, that were meant to be handled by the public. A radical concept in 1968, inquiry-based learning is the foundation of the Bell Museum's pedagogical approach and public engagement. Over time, the "touch and see" educational collection has grown to over 3000 specimens and has diversified in its uses, including the addition of specimens and artifacts that are intended for long-term, non-consumable use. What began as a collection of assorted animal bones and skins for a museum exhibit gallery grew into a collection of support materials for diverse purposes including:

- K-12 and family programming within the Museum
- traveling teaching collections used by Minnesota's State College and University system and University of Minnesota classes
- traveling displays and specimens for use in association with our K-12 school residency programs outstate

- exhibit specimens borrowed by libraries, nature centers, and other museums for their educational displays
- a treasure trove of items borrowed by artists and educators through our rental program.

Museum staff have identified objects, now referred to as “Red Tag Specimens”, that have significant value as exhibit and educational museum objects, and because of their inherent nature would be difficult or impossible to replace. For example, some wild animal and plant specimens donated decades ago represent species that were common, but today represent species that are threatened due to habitat loss or environmental change. Specific examples include our artifacts of whale bones, polar bear skins and mounts, and freshwater mussel shells.

Upon preliminary review of our collection and collection procedures, we have estimated that approximately 300 specimens should be designated as Red Tag Specimens. This list includes biological specimens and artifacts related to the history of the Bell Museum including early 1900s teaching models of flowers and diatoms, as well as molds used to create the dioramas.

### **C. Exhibition and Natural History Art Collections**

The heart of these collections is a series of habitat dioramas created between 1911 and 1960, which are the centerpiece of the main public display hall. There is a complete checklist of all organisms in these dioramas. The Museum also possesses over 1400 accessioned paintings, drawings, prints, and other natural history art ranging in age from the 1700s to the present. One of the most significant of these latter items is a complete 435-print set of John James Audubon's original double-elephant folio, "The Birds of America" (fewer than 120 sets exist worldwide). Another highlight is the collection of 500-plus pieces comprising the Francis Lee Jaques collection, one of America's most important wildlife artists during the first half of the Twentieth Century (this series is catalogued through the University Libraries Special Collections). In 1992, the American Museum of Wildlife Art (of Minneapolis) closed and donated its entire collection of over 100 paintings and prints, mainly of contemporary artists, to the Bell Museum. These are used in exhibits and public programming.

## **Acquisition of Specimens**

The continued acquisition of specimens is an important aspect of the Museum's scientific research and educational programs and is, therefore, fundamental to the Museum's long-term success. Decisions relating to acquisition of specimens are the responsibility of the respective curator. Curators also may refuse to accept specimens and may determine the disposition in the Museum of any specimen once accepted. A permanent record of all specimens, specimen lots, artwork, or other objects acquired will be kept. This record serves to establish legal provenance and is to include the type of acquisition, the source, and whether a research voucher, gift donation, or purchase.

### *Process of acquisition:*

Specimens may be obtained through a variety of means, including but not limited to the following:

- field collecting
- acquisition of abandoned collections
- exchanges with other institutions
- deposition by governmental agencies
- gifts from the public
- other legal means.

However, the Museum will only accept specimens or specimen lots that are deemed to be of scientific or educational value. The Museum will not accept specimens of unclear title; nor those collected without appropriate collecting, transportation, or import permits; nor those obtained through illegal means. The Museum will not enter into illicit trade of specimens nor knowingly accept specimens collected or imported illegally (unless such specimens are donated by a governmental enforcement agency). Specimens collected under permit should have permit information (granting agency and permit number) included as part of the specimen record. This information is particularly important to safeguard against future legal actions regarding the possession of rare organisms.

### *Criteria for acceptance:*

The high cost of maintaining the quality of the Museum's collections and of storing and preserving specimens requires that curators carefully evaluate every potential acquisition.

Scientific specimens must meet one or more of the following criteria:

- enhance the overall research value of the Museum's collections
- enhance the representation of the geographic distribution of species
- broaden the taxonomic coverage of a collection

- provide additional comparative materials
- enhance the Museum's scholarly activities.

Educational or artistic specimens should meet one or more of the following criteria:

- enhance the educational programs
- add to the diversity of specimens available for the Touch and See Room
- enrich current exhibit displays
- relate to regional flora or fauna
- enhance coverage of specific wildlife artists already in the Museum's collections.

Decisions regarding acceptance of any specimen should also consider current suitable storage conditions, curatorial expertise, and potential overlap with neighboring institutions.

Gifts of specimens from private individuals will receive the same considerations and be subject to the same criteria as other acquisitions. Private donations will only be accepted if there are no conditions or restrictions attached to the use, display, temporary loan, or disposal of an item, and no request to maintaining gifted collections as separate subunits within the Museum's collections.

*Appraisals of specimens:*

Museum staff will not provide appraisals, nor arrange for individual appraisals, of any tax-deductible donations coming to the Museum. However, staff may provide a list of appraisal sources to potential donors.

## **Deaccessioning and Disposal of Specimens**

The Museum acts as a steward for the preservation of biological specimens. In this capacity, it may be necessary at times to deaccession or dispose of specimens due to accidental loss or damage, reduction in Museum resources, change in curatorial focus, or other unforeseen circumstances. The Museum reserves the right to deaccession or dispose of any specimen that does not have scientific or educational merit. Any decision regarding permanent removal and/or disposal of specimens is initially the responsibility of the respective curator. The museum director will be consulted in all cases dealing with removal of unique, highly valued, or gifted specimens. The respective curator will ensure that all appropriate records and databases will be duly annotated regarding specimen deaccessioning and/or disposal.

### *Deaccessioning of specimens:*

Occasionally specimens may lose their scientific or educational value through unintentional damage or through the loss of associated data. Under such circumstances, accessioned specimens may be transferred from the scientific collections to the educational or exhibition collections or may be subject to further disposal.

### *Criteria:*

All decisions regarding the deaccessioning of specimens will consider scientific, historical, and educational importance of the specimen(s) in question; the needs of present and potential future research; and all necessary legal and ethical issues. In all cases, the quality of the Museum's overall collections must not be compromised. Specimens, specimen lots, artwork, or other artifacts may be deaccessioned if they meet any of the following criteria:

- no longer appropriate to the Museum's mission
- outside the scope of the Museum's focus
- transferred to another institution in exchange for specimens enhancing our collections
- transferred to another institution, that will provide resources for better care
- deterioration to such a state that the scientific value is compromised
- discovered to be a forgery or fake
- not accompanied by proper documentation.

### *Disposal of specimens:*

All decisions regarding the disposal of specimens (i.e., removal from the Museum's care) will consider scientific, historical, and educational importance of the specimen(s) in question, the ability of the Museum to provide appropriate conservation repair, and all

necessary legal and ethical issues. In all cases, the quality of the Museum's overall collections must not be compromised. Complete removal of a specimen from the Museum may take any of the following forms:

- transfer to another, more appropriate institution
- destruction of specimen(s) damaged beyond repair
- discard or sale (if legal) of a specimen lacking scientific or educational value.

Any funds generated from the sale of specimens will go towards supporting the Museum's curatorial efforts.

## **Preservation of Specimens**

The Museum's obligation to its collections is the foundation of its mission. This obligation requires that those associated with collections care (staff, student assistants, researchers, and volunteers) will ensure that the highest standards of collections care and conservation will be followed, that unnecessary deterioration of specimens will be limited as far as possible, and that all legal and professional responsibilities shall be met. In addition, specimens borrowed by staff from other institutions will also be subject to the same standards of care.

Curators are responsible for the care of their respective collections. It shall be the responsibility of the curator or designated curatorial staff to see that the following items are regularly and effectively implemented:

- no Museum activity will jeopardize the safety, security, or preservation of specimens in the Museum's care
- the Museum will provide safe and secure storage for all specimens (accessioned, non-accessioned, borrowed, stored, or otherwise in custody) within the limits of
- existing facilities
- environmental conditions shall be periodically monitored to ensure they remain stable and fall within acceptable limits for specimen preservation. Curators will promptly notify the University's Facilities Management when situations need to be corrected
- staff, volunteers, student assistants, and collection visitors will be instructed in the proper handling of specimens
- all specimens brought into the collection areas shall be treated to prevent the introduction of potential pests
- any infestations that do occur will be immediately subjected to appropriate treatments
- specimens from the permanent collections that will be temporarily used in exhibitions, displays, or demonstrations shall be cared for appropriately at all times (proper handling, protection from environmental hazards, insulated from pests, etc.)
- specimens to be loaned to another institution shall receive proper packing and shipping according to professional standards and legal requirements.

In those rare instances that a specimen is damaged beyond minor repairs that can be done by museum staff, expert conservation treatment may be authorized after consultation with the museum director.



## **Loans**

The Museum may lend specimens from its various collections for educational and scholarly purposes to other public institutions. Specimens may also be used occasionally as demonstration material for educational purposes in the Museum's programs or University of Minnesota classes. The Museum's collections normally are not available for commercial use (see additional comments under "Collections Access – Commercial Use" above). An exception may be the fungal culture collection, which would require special contracts for use (see "Collections Access – Commercial Use").

Decisions and final authority for all loan requests rest with the respective curator, who will maintain permanent records of all loan activity, whether for research or educational purposes. Specimens for loan will be chosen and evaluated by the respective curator for suitability for such uses. Decisions regarding loans of accessioned specimens for class demonstration purposes to a University instructor other than a curator, rests with the respective curator.

### **A. Research Loans**

Permanent records of all loan activity will be kept with the respective collection (see "Collections Documentation").

All borrowers (including other U of M faculty) must agree to abide by the Museum's loan policy, which shall stipulate the following items:

- Dried specimens must be stored in insect-free, airtight cases. Additionally, specimens must be handled with the utmost care. They must not be subjected to physical or chemical damage and exposure to sunlight must be strictly limited.
- Loans of specimens, including type specimens, are made for a period of one or two (1-2) years from the time of receipt. Partial return of large loans that may require more time for study is to be encouraged. Permission is required from the respective curator for an extension of all loans beyond the initial specified time limit.
- Loans may not be transferred from the original borrowing institution to another without written permission of the respective curator.
- Specimen annotations (related to identification, research vouchering, type specimen status, etc.) shall be made in a manner appropriate to the specimen and at the instruction of the respective curator. All annotations must carry researcher's name, institution, year of examination, and nature of research if not taxonomic. In the case of type specimens, the researcher shall clearly indicate the kind of type, basionym, author, publication, and current name.

- Incomplete specimen collection labels, especially on older specimens, may be augmented with more data from duplicate sheets or the collector's notes. Researchers are encouraged to provide any such additional data as an annotation.
- Judicious dissection of small portions of specimens is permitted only with the prior approval of the respective curator. Whenever possible, all such material should be returned to the specimen via suitable archival storage. *The removal of material for molecular analyses is permitted only with prior written permission of the respective curator.* Specimens used in molecular analyses must be so annotated. The sequence should be submitted to GenBank or other appropriate repository and the sequence record (e.g., GenBank file), should clearly reference the origin of the material from the J.F. Bell Museum of Natural History, and should include proper accession number as well as any other pertinent metadata. Any remaining DNA should be returned if requested by the curator managing the loan.
- Acknowledgments of any publications derived from a loan must specify “J.F. Bell Museum of Natural History, University of Minnesota”. Publications must report specific accession numbers for specimens used. The citation of any publication based on the Museum’s specimens should be sent to the respective curator upon publication.

## **B. Genetic Resources Loans**

### *Loan Requests:*

Rarely, tissues may be gifted rather than loaned to the requesting institution. Whether a loan or a gift of tissue samples is made remains at the discretion of the curators and Museum. The application will be evaluated by the Curator of Genetic Resources in consultation with members of the curatorial staff of the Bell Museum. Upon approval of a request and receipt of the signed agreement letter, tissues will be sent by appropriate means. If special shipping conditions are requested, the recipient institution must provide these expenses.

The following points must be addressed in the request:

- A brief description of the project for which the tissues will be used must be submitted with the request. The description should include the techniques to be used and evidence that those techniques are already being employed successfully in the laboratory of the investigator.
- Evidence of the credentials and other qualifications of the researcher to perform the project.

- A list of the tissue samples being requested, the amount of tissue required, and a justification of the number and types of tissues requested (why these tissues are unavailable from wild or captive sources).
- A summary of the tissues already collected by the investigator for the project.
- A discussion of the contribution that other institutions will make to the tissue needs of the project.
- Copies of the requisite permits for obtaining, possessing, and working with the tissues if applicable. For domestic researchers, this may include permits to possess endangered species, special permits to possess migratory birds, and USDA/APHIS permits for translocation of regulated tissues (e.g., birds of foreign origin) within the United States. For foreign researchers, this may include import permits required by their government and CITES import permits. The requesting institution will provide a written statement that all necessary permits have been obtained.

Criteria for approval of loans may include:

- scientific value and feasibility of the project
- qualifications of the researcher
- demonstrated need for the specific samples requested
- evidence that the investigator is contributing to the general availability of genetic resources in the research community
- approval of the original collector of the tissue sample, if appropriate.

*Loan Conditions:*

In exchange for a loan of tissue samples from the Museum, the recipient must agree to the following conditions in addition to the general loan terms outlined above:

- Tissue transfers: Tissues are loaned for the sole use of the investigator requesting the samples, specifically for the project approved by the curatorial staff of the Museum. The tissue is not to be further loaned to other investigators at the requesting institution, nor is any part of it to be transferred to any third institution, without permission from the Museum.
- Commercial agreement: The recipient of a loan of tissue samples must agree that the tissue sample and any results stemming from its use will not be used for any commercial purpose. All commercial rights for any discovery associated with a tissue sample on loan from the Museum remain the property of the Regents of the University of Minnesota, or as stipulated in agreements the Museum may have established with foreign governments in originally acquiring the specimens.
- Return of unused tissue: Loaned tissues remain the property of the Museum. Upon completion of the specified project, all unused material, including purified DNA, must be returned to the Museum. At the discretion of the curators and

Museum, material may be gifted to the researcher. In such cases, return of unused material is not required.

- Voucher data: If DNA sequences from loaned tissues are deposited in GenBank or any other genetic data bank, they must be accompanied by the tissue number and Museum voucher specimen number associated with the tissue sample.

### **C. Educational Loans**

Accessioned specimens, in addition to the educational collection specimens, may be used occasionally as demonstration for educational purposes in the Museum's programs or University classes. Decisions with respect to loaning material to an instructor other than a curator rests with the respective curator. A curator, or designated Museum staff, must be present for any use of accessioned specimens outside of the University (e.g., accessioned specimens cannot be loaned for demonstration at a nature center unless the respective curator, or designated representative, is involved in the demonstration program). Permanent records of all educational loan activity will be kept with the respective collection (see "Collections Documentation" section for details).

General information on basic care and handling of the respective specimens will also be provided to the instructor at the time of loan.

### **D. Exhibition Loans**

In the case of art or natural history specimens loaned for outside exhibitions, all potential borrowers must sign a loan contract (contact the University's Office of General Counsel for templates) before items will be sent. An "assessment of condition" report will be generated for each specimen by the respective curator, or designated curatorial staff, before being sent on loan and immediately upon return. Such condition reports become part of the permanent collections records and can be used for liability or insurance purposes, if necessary.

#### *Criteria for declining loans:*

Some specimens may be unsuitable for lending. Reasons for declining a loan request include, but are not limited to:

- specimen(s) currently being used in on-going research at the Museum or another institution
- absence of the specimen(s) would be detrimental to the Museum's mission (e.g.,
- the requested specimen is the only specimen representing of that taxon in the
- Museum)

- specimen(s) too fragile to be shipped or transported
- specimen(s) inappropriate for the requested use (e.g., a type specimen is requested for class demonstration)
- requesting institution or researcher has shown by past experience to be ill equipped to properly care for specimens.

## **Collections Documentation**

Accurate and complete documentation regarding the acquisition, conservation, history and use of specimens increases their scientific and educational value. Specimen documentation must be in a format that is easily retrievable and understandable, legible, and comprehensive. Furthermore, such records serve to establish legal ownership of specimens by the Museum in the case of loss or damage, and will help ensure the highest level of collection stewardship.

Proper documentation is the responsibility of the respective curator, or designated curatorial staff, who shall also be responsible for the accuracy and integrity of the records and electronic specimen databases. Documentation may take the form of written documents or electronic records as appropriate; regardless of the form, backup copies shall be maintained. These data will be kept in permanent form associated with each collection and regularly maintained (including backups) by the curator, or designated curatorial assistant.

### **A. Acquisitions**

All specimens or specimen lots accepted for the Museum's varied collections must be accompanied by accurate and complete documentation. Documentation should include, at a minimum, the following items:

- source of the specimen (e.g., government agency, general public, staff)
- general description and nature of the specimen (e.g., research voucher, field collection, salvage)
- collection/possession permitting information
- condition of specimen(s) on arrival
- final disposition (e.g., for permanent collections, exhibits, or exchange)
- copies of letters of acceptance for gifted specimens and any associated correspondence with donor
- restrictions on usage, if applicable
- each specimen/specimen lot will be permanently marked with a unique catalogue/accession number, which will be permanently associated with that specimen/specimen lot. The specimen/specimen lot will also be marked in some way as property of the Museum, with the exception of the Jacques works, which are catalogued through University Libraries.

## **B. Loans**

All specimens sent or received as a loan must be permanently recorded.

Documentation related to out-going loans should include the following items:

- borrower and institution
- copy of correspondence requesting the loan indicating the reason for the request
- description of loan (taxon/taxa borrowed, number loaned, catalogue/accession numbers, condition of specimen(s), type-specimen data, etc.)
- copy of shipping invoice (see Appendix 2), indicating date shipped
- date loan arrived safely and name of receiver.

Documentation related to in-coming loans should include the following:

- borrower (faculty or grad student, contact information if not associated with the Museum)
- lending institution and contact
- description of loan (taxon/taxa borrowed, number of specimens)
- import permit if necessary (a copy of the permit should be also be filed in the Museum director's office)
- date loan arrived safely
- copy of damage report, if applicable
- projected return date
- copy of shipping invoice when loan returned.

## **C. Deaccessions and Disposal**

Documentation should include the following items:

- description or list of specimen(s) being deaccessioned
- reason for deaccessioning
- final disposition of deaccessioned specimen (e.g., transferred to another institution, transferred to educational collection, disposal/destruction, etc.).

## **D. Destructive Sampling of Specimens**

Occasionally it is necessary to remove a small portion of a specimen for research purposes (e.g., molecular analyses) or to assess storage conditions (e.g., absorption of toxic metals). All specimens so sampled should carry a permanent annotation indicating the nature of the sampling, date of examination, and name of person performing the sampling. See sections on destructive sampling under "Collections Access" and "Loans" below for further restrictions and requirements.

## **Collection Inventory**

A regular periodic inventory of the collections is important for accountability to the public trust, as well as for insurance purposes. Since the Museum's collections number well over 1 million specimens, it would be impossible to perform a complete inventory of collections on a regular basis. Thus, a random sampling of specimens periodically will be considered sufficient for proper stewardship. This periodic review, carried out by the respective curator, or designated curatorial staff, will help ensure that specimens are receiving proper care, and that specimens have not been stolen or misplaced. These reviews will also update collections records, help assess the integrity of the storage conditions, and identify and prioritize those specimens needing repair and conservation treatment.



## **Collections Access**

The collections of the Museum exist for the benefit of present and future generations. Specimen conservation needs to be balanced against the need of various segments of the public for reasonable access to those specimens and their associated data for the purpose of research and/or education.

The majority of the accessioned specimens may be made available for consultation by researchers, educators, students, and others. Such decisions, including access to sensitive data (e.g., locality specifics for endangered species), are the responsibility of the respective curator.

*Requests for access* should be made in advance to the respective curator, who shall be responsible for evaluating requests and facilitating reasonable access to the collections. All persons granted access to the collections will be instructed by the respective curator, or designated curatorial assistant, on proper handling procedures, arrangement of specimens, and policies pertinent to the various collections.

### *Electronic access:*

Specimen data (e.g., identification, collecting localities, collector, etc.) shall be made widely available via the Internet, using suitable collections database software as agreed-upon by the staff. Decisions regarding access to sensitive data (e.g., locality specifics for endangered species) are the responsibility of the respective curator.

### *Physical access:*

Access to specimens shall be made available for the purpose of research, education (class projects, collection tours), or public education (museum exhibit displays) and should take place during normal university hours of operation. It is important to document annual usage of the collections. As the Museum's collections are currently housed in different buildings, each collection will provide and maintain a visitor log, in which the visitor's name, affiliation, date, and nature of visit (research, education) are permanently recorded. The information will be provided to Visitor Services (preferably monthly, but minimally semi-annually) as part of our museum dashboard metrics.

### *Educational use:*

All proposed educational uses (including that of college classes) must be discussed in advance with the respective curator. Curators must assess whether the proposed use is appropriate and consistent with the long-term care of the specimens. For example, group size of educational tours including college or K-12 classes, may be limited in number to safeguard the integrity of the collections.

*Research use and curatorial activities:*

All persons granted physical access to the collections will be instructed by the respective curator, or designated curatorial staff, on proper specimen handling procedures, arrangement of specimens, and policies pertinent to the various collections. It is not always practical or ethical to allow unlimited access to the physical specimens in the Museum. Access limitations include (but are not restricted to) the following:

- specimen(s) on loan to another institution or on exhibition
- specimen(s) undergoing repair or conservation treatment
- staff unavailable to assist visitors
- collection areas closed for renovation or repair
- security issues requiring closure of collection area(s).

Each curator has the authority and responsibility for decisions regarding physical access beyond regular business hours. Such access should only be granted to individuals who have a demonstrated need for after-hours work. In certain cases, an individual may have long-term research needs and may then be invited to become a “museum associate”, with all the attendant privileges; see “Museum Associates and Volunteer Curators”.

*Sampling and destructive analyses:*

Certain research topics (e.g., DNA analyses or ecto/endo-parasitic collecting from host specimens) involve the destructive sampling of specimens. It is recognized that judicious use of such sampling methods may enhance the value of some specimens. Therefore, decisions related to destructive sampling (including sampling techniques) of the Museum's specimens are the responsibility of the respective curators. Conditions and limits to such sampling will be made in writing to the requesting researcher in advance of the work. A copy of these conditions will be included with the loan shipping invoice, and a copy will be filed in the permanent collection records. Since such analyses result in the loss of a portion of the specimen(s), however small, such usage shall be documented and become part of the permanent record associated with the specimen(s). See additional comments under “Loans”.

*Exhibition use:*

Specimens from the permanent collections may be made available for temporary exhibition within the Museum after consultation with the respective curator. The curator may deny such use for type specimens or those specimens deemed too fragile to be moved. The use of specimens within the Museum's exhibition program will not be considered a “loan”, but the temporary removal of such specimens will be noted in the

respective collection. Return of specimens to their respective collection shall be subject to appropriate pest-control measures.

*Commercial use:*

The Museum's collections normally are not available for commercial use. However, at the discretion of the respective curator and with the approval of the museum director, specimens may occasionally be made available for such use. Written agreements for such use, as required by University policies, will include requirements for adequate display conditions and appropriate liability and damage insurance (see the University's Office of General Counsel website for approved agreement templates). The respective curator, in consultation with the museum director, shall make final decisions regarding selection of specimens, transportation of specimens, protective measures during use, and marketing appropriateness. Any moneys generated by the commercial use of Museum specimens (as specified in a written usage contract with the borrower) will be paid to the Museum.

**Collection Volunteers and Museum Associates (with/without University privileges)**

The Museum benefits from the contributions of volunteers who donate their time and knowledge to assist the curators with collection activities. All of these positions are non-salaried, volunteer positions that can include activities at the discretion of the curators. All volunteer relationships should be documented with a volunteer form that is signed by the curator and volunteer (Appendix 3). In the case of museum associates, an appointment letter from the director and signed by the museum associate is required.

Curators are responsible for their respective museum volunteers and tracking their names, volunteer hours, and activities for annual reporting purposes and museum volunteer appreciation events.

The official "Bell Museum Associate" title is an annually renewable, non-salaried, 12-month appointment at the University of Minnesota. This category of volunteer is reserved for those in the scientific, professional, amateur, or education community who provide sustained collection-based research or museum-based pedagogical research. Bell Museum associates should contribute to our research or educational collections through specimen deposition, curation, or database content enhancements.

A Bell Museum Associate is sponsored by one or more faculty curators. To propose a new associate, the sponsoring curator must provide the prospective associate's CV for consideration and a brief overview of how this person will be contributing to the growth

and improvement of our research collections. Appointments are reviewed annually for renewal. The curators provide a synopsis of their Museum Associates contributions and activities as part of their annual collection report. The curator must affirm annually that the level of contributions warrant continued status as a museum associate.

There are two levels of Museum Associates. The first level of a Museum Associate appointment does not confer additional University privileges; however, the person is recognized in our Annual Report to donors and provided an individual museum membership. They will be placed on the distribution list to receive Bell Museum publications, exhibit and event announcements. The second level of appointment (without salary, WOS) includes the benefits of the first level and confers additional University privileges of library, IT, recreational sports center access, and free admission to University Museums. These appointments incur costs to the College (approximately \$2000/person in 2013) and should only be awarded to those who, in the curator's best judgment, have an intellectual need to access these privileges to carry out their collaboration as a Museum Associate.

Whether these individuals are provided unsupervised access to the collections or collection databases is at the discretion of the individual curator. Curators should inform colleagues when such access is conferred for shared collection areas (Herbarium, Mammal/Bird or Fish/Herpetology ranges).

## **Risk Management and Security**

Prudent collections stewardship requires the identification and elimination of risks to the collections within the care of the Museum (including those specimens borrowed from other institutions or temporarily in the care of the Museum). All specimens in the Museum's care shall be insured under the University of Minnesota's policy and subject to the requirements and limitations of that policy.

The museum director is ultimately responsible for the security and safety of the Museum environment, specimens in the Museum's care, and all staff, volunteers, and visitors. However, all curators are responsible for periodically surveying their collections for potential hazards and are responsible for eliminating or reducing any hazards found. Potential hazards include, but are not limited to, natural disasters, vandalism, theft, mechanical or facilities failure, deterioration, and human error. The museum director and curators shall be responsible for insuring that appropriate safety and security measures, in consultation with the University's security services, are in place and followed by all those entering the Museum's collection and exhibition areas, in coordination with the University's Office of Information Technology as appropriate.

Additionally, curators, or designated curatorial assistants, shall be responsible for updating computer security and anti-virus software, ensuring that private data are handled according to federal and University policies, and that all staff and volunteers under their supervision are aware of, and follow, such policies.

Recognizing the public trust placed in the Museum, the museum director shall appoint a committee to create, implement, and periodically review a disaster preparedness plan for the collections and exhibition areas and ensure such plans are in accordance with University policies.

## **Intellectual Property Rights**

The Museum is both a holder and a user of intellectual property rights and, therefore, seeks to protect the intellectual integrity of collections while promoting intellectual and educational access to the Museum's collections. The Museum strives to protect the intellectual property rights of individuals and organizations, including the Museum itself and to promote responsible dissemination of knowledge gained from the Museum's collections.

Exhibits or educational materials designed, developed, constructed, or written by staff, as part of their responsibilities as employees of the Museum, are considered the property of the Museum. The Museum/University retains the right to copyright, patent, or trademark such items and is entitled to receive fees or royalties earned in relation to such items. Fees may be charged to non-University individuals or organizations for the use of images of the Museum's specimens in any publication, website, or other media. All decisions related to user fees shall rest with the museum director or designated representative.

The Museum encourages publication of original scholarly research, in professional journals and other media, on the part of its curators and associated students, especially those research projects that utilized the Museum's collections. The "J.F. Bell Museum of Natural History" will be listed as part of the author's affiliation in such publications.

Copyright for the reproduction of Museum-owned specimens in exhibit catalogs, pamphlets, press releases, portfolios, videos, or other such productions shall remain the property of the Museum. All reproductions produced for publication or sale must have the written approval of the respective curator, who will have responsibility for checking acquisition records for restrictions placed on specimen usage. In general photographs may be used in scientific publications and exhibition portfolios but no images may be distributed for other uses, to other organizations or persons, or used in digital formats without express written permission from the respective curator and museum director. In all cases photographs must be credited to the "J.F. Bell Museum of Natural History, University of Minnesota" either on the image border or in a separate photo credit section identifying the specific images and their page locations in the publication.

The Museum's exhibition curator will be responsible for determining the copyright status of all items brought into the Museum (through gift, transfer, exchange, or loan) for exhibition purposes and will properly credit the copyright holder in all exhibition catalogs, pamphlets, press releases, or other such productions.

Artists unassociated with the Museum, who wish to use specimen mounts as models in artistic creations, are required to fill out a special request form indicating the specimens examined and a brief description of the type of art being created. No specimen used as an artist's model may be removed from the Museum. The rights to such creations remain with the artist.

The Museum is committed to complying with all applicable laws concerning the full exercise of intellectual property rights, including the "Fair Use" provision of the U.S. federal copyright law (17 U.S.C., section 107). Fair use determination will be made on a case-by-case basis, taking into consideration the legal parameters of the Fair Use doctrine.

## **Additional Collection Stewardship Issues**

The collections of the Museum exist in the public trust as documentation of the biodiversity and are a reference for related research and education now and in the future. However, the Museum must also abide by all pertinent state, federal, and international laws associated with the collection, possession, and transportation of specimens.

The Museum will not acquire or exhibit human remains. Any such specimens currently owned by the Museum will be considered for transfer to a more appropriate institution or Native American tribe, burial, or culturally sensitive disposal.

The Museum will not knowingly acquire any specimen whose ownership has not been clearly established.

The Museum will not knowingly acquire any specimen that has been obtained (collected, bought, traded, found) illegally or under questionable circumstances, except as provided to the Museum by appropriate federal authorities.

Organismal specimens, or portions thereof, that were collected from state or federally protected or restricted sites (e.g., state designated Scientific and Natural Areas; Military Reservations; National Parks) must also be accompanied by collecting permit documentation before being acquired by the Museum (effective January 2008). At a minimum this must include the permitting agency's name and permit number. This information will be forever associated with the respective specimen(s).

Organismal specimens, or portions thereof, must conform to the legal requirements as set forth in the following laws:

- U.S. Lacey Act 1900
- Migratory Bird Treaty, 1918
- U.S. Fish and Wildlife Act, 1956
- U.S. Bald and Golden Eagle Protection Act, 1940, 1962
- U.S. Wild Bird Conservation Act, 1972
- Convention on International Trade in Threatened and Endangered Species of Wild Fauna and Flora, 1973
- U.S. Federal Endangered Species Act, 1973
- U.S. Code of Federal Regulations, 36 CFR 2.5, 1984 (refers to collections made on national park lands), 1983
- Native American Graves Protection and Repatriation Act, 1990 (refers to cultural and sacred objects associated with Native American tribes, including those



- containing animal or plant materials)
- Minnesota Statute, Dept. of Natural Resources, 84.0895 (refers to federal and state listed endangered species)
- Minnesota Statute 18H.18 (refers to conservation of wildflowers).

The Museum will strive to treat culturally sensitive specimens with appropriate consideration of the wishes of the local Native American tribes.

Any repository agreements with state or federal agencies must be in the form of written contracts, specifying details regarding storage and curatorial care, access, additional acquisitions, and compensation (if any) to the Museum. Any such agreements must not violate the Museum's acquisition policy and will be subject to the Museum's collection management policy. These agreements must be made with the respective curator in consultation with the museum director. Such agreements must be signed by the authorized agency official and the museum director and filed in the Museum office.

### **Staff Responsibilities**

Each curator is responsible for seeing that the activities associated with his or her collection adheres to the set of policies and procedures set forth in this document and adheres to all applicable laws (see previous section) and University policies. Curatorial assistants and volunteers shall be trained by the respective curator with respect to appropriate curatorial and/or collecting procedures and appropriate laws and regulations affecting curatorial activities.

It shall be the responsibility of the respective curator to create written, standard operating procedures for the management of their collection(s) and to make these protocols available for the training of assistants. These operating procedures are to be updated as necessary.

Any specimens that are found to be in violation of collecting or possession laws will be brought to the attention of the respective curator and museum director. As soon as reasonably possible the curator and/or museum director will take appropriate steps necessary to resolve the status of the specimen(s) in question, including (but not limited to) consultation with University lawyers.

## **Code of Ethics**

Maintaining professional ethics strengthens the role of the Museum in the public arena and is the responsibility of *all* Museum staff, student assistants, and volunteers. All staff, assistants, and volunteers will abide by the “Code of Ethics” of the American Association of Museums (<http://www.aam-us.org/resources/ethics-standards-and-best-practices/public-trust>). Faculty and staff associated with the Museum shall also comply with all appropriate policies of the University of Minnesota (<http://www.policy.umn.edu/>).

### *General collecting:*

Museum staff and assistants (whether hired or volunteers) will not collect for the Museum in violation of state, federal, or international laws, nor collect unsatisfactory specimens, or specimens whose ownership is in doubt, nor collect without appropriate collecting permits.

No staff or assistants may enter into scientific collecting on behalf of the Museum without the explicit consent of the respective curator or the museum director. No curatorial assistant may act on behalf of the Museum in acquiring material or disposing of material without the express permission of the respective curator.

### *Personal collections:*

Although the acquisition of specimens may enhance the professional knowledge of staff and associates, in no case is it permissible for curators, curatorial associates, or associated students to maintain private natural history collections. Specimens acquired as part of scientific research on the part of curators (while in the employ of the Bell Museum), associated students, and curatorial and research assistants must become the property of the Museum, or other public institutions as required by grants or permits; however, they may remain segregated from the body of the Museum's collections during the research and publications phase. In addition, specimens acquired by any museum staff member, curator, or graduate student that are not part of immediate research projects also are to be considered museum specimens and must be deposited in the Bell Museum's collection. Collecting permits should stipulate all specimens will become part of the Bell Museum's collection.

### *Acquisition of deaccessioned specimens:*

Staff and volunteers may not obtain, by purchase or other means, deaccessioned specimens unless and until such specimens are offered to the general public, and as long as staff have no special advantage in the bidding or purchase.

*Conflicts of interest:*

Staff and volunteers have an obligation to act in the best interests of the Museum in matters relating to the activities of the Museum. Staff and volunteers must clearly differentiate their work activities from their private interests and must not compete in any way with the professional activities of the Museum. Staff and volunteers shall not use their position with the Museum to intentionally derive personal benefit (e.g., from an exhibition of their works) or pecuniary gain.

### **Revisions and Compliance**

It shall be the museum director's responsibility to ensure that staff are in compliance with the Collections Management Policy. This may take the form of an annual summary of curatorial activities or be included in annual personnel reviews. Questions concerning implementation and issues of exceptions can be brought before all curators for discussion.

All staff are responsible for familiarity with and implementation of the Collections Management Policy.

Recognizing that situations change over time, a regular review of the Collections Management Policy shall occur every five years. Additions and changes may be made at that time.

Final approval of the Collections Management Policy and any subsequent revisions will rest with the museum director and majority of the collection curators. Copies of the Collections Management Policy will be made available to all curators and staff as appropriate, and will be posted on the Museum's website.

## **Appendix 1.**

### **Legislative Establishment of the Museum of Natural History**

## CHAPTER XXX.

February 29,  
1872.

*An Act to provide for a Geological and Natural History Survey of the State and entrust the same to the University of Minnesota :*

- SECTION 1. Geological and natural history survey authorized to be made by the University of Minnesota.
2. Object of the geological survey.
  3. Object of the natural history survey.
  4. Manner of conducting the surveys.
  5. Provides for meteorological statistics, and a map of the state.
  6. Natural history and geological specimens to be prepared, and museum to be established at the university.
  7. A geological map of the state authorized to be made.
  8. Annual report of the board of regents to be made to the governor.
  9. Annual appropriation of one thousand dollars for expenses.

*Be it enacted by the Legislature of the State of Minnesota :*

Geological and  
natural history  
survey author-  
ized.

SECTION 1. It shall be the duty of the board of regents of the university of Minnesota to cause to be begun as soon as may be practicable, and to carry on a thorough geological and natural history survey of the state.

Geological sur-  
vey.

SEC. 2. The geological survey shall be carried on with a view to a complete account of the mineral kingdom as represented in the state, including the number, order, dip, and magnitude of the several geological strata, their richness in ores, corals, clays, peats, salines and mineral waters, marls, cements, building stones and other useful materials, the value of said substances for economical purposes and their accessibility; also an accurate chemical analysis of the various rocks, soils, ores, clay, peats, marls and other mineral substances, of which complete and exact records shall be made.

Natural history  
survey.

SEC. 3. The natural history survey shall include, first, an examination of the vegetable productions of the state, embracing all trees, shrubs, herbs and grasses native or naturalized in the state; second, a complete and scientific account of the animal kingdom as properly represented in the state, including all mammalia, fishes, reptiles, birds and insects.

SEC. 4. The said surveys and examinations shall be made in the manner and order following: First, the geological survey proper, together with the necessary and implied mineralogical investigations, all of which shall be undertaken so soon as may be practicable, and be carried forward with such expedition as may be consistent with economy and thoroughness; second, the botanical examinations; third, zoological investigations, provided, however, that whenever the said board of regents may find it most economical to prosecute different portions of the surveys in conjunction, or that the public interest demands it, they may, in their discretion, depart from the above prescribed order. And in the employment of assistants in the said surveys the said board of regents shall at all times give the preference to the students and graduates of the University of Minnesota, provided the same be well qualified for the duties.

Order of survey  
and examina-  
tion.

SEC. 5. The said board of regents shall also cause to be collected and tabulated such meteorological statistics as may be needed to account for the varieties of climate in the different parts of the state; also to cause to be ascertained [by] barometrical observation or other appropriate means the relation, elevations and depressions of the different parts of the state; and also on or before the completion of the said surveys, to cause to be compiled from such actual surveys and measurements as may be necessary, an accurate map of the state, which map when approved by the Governor shall be the official map of the state.

Meteorological  
statistics.

SEC. 6. It shall be the duty of the said board of regents to cause proper specimens, skillfully prepared, secured and labelled of all rocks, soils, ores, coals, fossils, cements, building stones, plants, woods, skins and skeletons of animals, birds, insects and fishes, and other mineral, vegetable and animal substances and organisms discovered or examined in the course of said surveys, to be preserved for public inspection free of cost, in the University of Minnesota, in rooms convenient of access and properly warmed, lighted, ventilated and furnished, and in charge of a proper scientific curator; and they shall also, whenever the same may be practicable, cause duplicates in reasonable numbers and quantities of the above named specimens, to be collected and preserved for the purpose of exchanges with other state universities and scientific institutions, of which latter the Smithsonian Institute at Washington shall have the preference.

Specimens to  
be prepared.

SEC. 7. The said board of regents shall cause a geological map of the state to be made, as soon as may be prac-

Geological map



licable, upon which, by colors and other appropriate means and devices, the various geological formations shall be represented.

Annual report  
to the governor

SEC. 8. It shall be the duty of the said board of regents, through their president to make, on or before the second Tuesday in December in each and every year, a report showing the progress of the said surveys, accompanied by such maps, drawing, and specifications as may be necessary and proper to exemplify the same to the governor, who shall lay the same before the legislature; and the said board of regents upon the completion of any separate portion of the said surveys, to cause to be prepared a memoir or final report, which shall embody in a convenient manner all useful and important information accumulated in the course of the investigation of the particular department or portion, which report or memoir shall likewise be communicated through the governor to the legislature.

Annual appro-  
priation \$1,000.

SEC. 9. To carry out the provisions of this act the sum of one thousand dollars per annum is hereby appropriated, to be drawn and expended by the [said] board of regents of the University of Minnesota.

SEC. 10. This act shall take effect and be in force from and after its approval.

Approved March 1, 1872.

**Appendix 2a.**

**Research Loan Invoice for Outgoing Loans (plant example)**



UNIVERSITY OF MINNESOTA HERBARIUM (MIN)  
PLANT SECTION  
J.F. BELL MUSEUM OF NATURAL HISTORY  
1445 GORTNER AVE; 250 BIOSCI  
ST. PAUL MN 55108-1095 USA



[date]

[curator or collection manager name]  
[institution and address]

Enclosed in one or more packages are the following specimens. Upon receipt of the shipment, kindly verify the contents and acknowledge receipt by signing and returning one copy of this shipping invoice OR notify the curator via email: [chole001@umn.edu](mailto:chole001@umn.edu) Loans are expected to be returned within two years. Annotations are to be printed and glued near original specimen label; types should be plainly marked as to basionym, kind of type, and publication.

\_\_\_\_\_ Loan No: \_\_\_\_\_ For study by:

\_\_\_\_\_ Return of loan no:

Loan taxon:

Number of types:

Number of general specimens:

Total number of specimens:

Details: see attached

\_\_\_\_\_ Exchange specimens: \_\_\_\_\_ specimens  
Current balance: \_\_\_\_\_ in your/our favor

\_\_\_\_\_ Gift specimens:

Authorizing curator: *Anita F. Cholewa*, Curator of the Herbarium

The shipment described above was received in satisfactory condition.

Date:

By:



**BELL MUSEUM**  
of Natural History

UNIVERSITY OF MINNESOTA HERBARIUM (MIN)  
BELL MUSEUM OF NATURAL HISTORY

**LOAN DETAILS**

Loan #

Date:

To: [name / institution acronym]

**TYPES:**

Total:

---

MIN #	Taxon	County	State

**GENERAL COLLECTIONS:**

Taxon:

Total:

---

MIN #	Species-FullTaxonName	County	State

UNIVERSITY OF MINNESOTA HERBARIUM (MIN)  
PLANT SECTION  
J.F. BELL MUSEUM OF NATURAL HISTORY

LOAN INSTRUCTIONS

We are greatly appreciative of the effort of researchers in examining our specimens. We ask, however, that these instructions be followed so that specimens will retain their usefulness to future research.

1. Specimens must be stored in insect-free, airtight cases. Additionally, specimens must be handled with the utmost care. They must not be subjected to laboratory environments and exposure to sunlight must be strictly limited.
2. Loans of specimens, including type specimens, are made for a period of two (2) years from time of receipt. Partial return of large loans or where difficult taxa may require more time for study is to be encouraged. Permission is required from the respective curator for an extension of all loans beyond the initial two-year limit.
3. Loans may not be transferred to another without written permission of the respective curator of the originating institution.
4. Specimen annotations (related to identification or type specimen status) shall be made in a manner appropriate to the specimen – on a slip of acid-free paper, no larger than approximately 2.5 x 10 cm and glued to the herbarium sheet, preferably near the original specimen label. Note: Annotations that indicate the specimen is a voucher for molecular or non-taxonomic research may be attached in the lower left corner of the specimen. All annotations must carry researcher's name, institution, year of examination, and nature of research if not taxonomic. In the case of type specimens, the researcher shall clearly indicate the kind of type, basionym, author, publication, and current name.
5. Incomplete specimen collection labels, especially on older specimens, may be augmented with more data from duplicate sheets or the collector's notes. Researchers are encouraged to provide any such additional data as an annotation.
6. Judicious dissection of small portions of specimens is permitted only with the prior approval of the curator. Whenever possible, all such material should be returned to the specimen via suitable archival storage. The removal of material for molecular analyses is permitted only with prior written permission of the respective curator. Specimens used in molecular analyses must be so annotated and copies of the sequence forward to GenBank or other appropriate repository with acknowledgement that it was obtained from specimens (include accession number) at the herbarium of the J.F. Bell Museum of Natural History ("MIN").
7. Acknowledgments must specify "Bell Museum of Natural History, University of Minnesota"; the approved acronym "MIN" additionally may be used. A notice of any publication based on the Museum's specimens should be sent to the respective curator upon publication.

**Appendix 2b.**

**Research Loan Invoice for Outgoing Loans (bird example)**

**INVOICE FOR TISSUE AND / OR DNA SPECIMENS**

**To:**

**DATE:**  
Shipping  
method:  
Number of  
specimens:

**Received by:** \_\_\_\_\_  
Signature Date

Please sign and return one copy upon  
receipt to: Mike Westberg, Bell Museum,  
100 Ecology  
1987 Upper Buford Circle, St Paul,  
MN 55108

**Description of Specimens:**

ID	Genus	Species

- The material contained in this shipment:
1. was derived from birds.
  2. was not exposed to any other animal origin material.

FedEx airbill#

Mike  
Westberg  
Bell Museum of Natural History  
1987 Upper Buford Circle  
St Paul MN 55108 USA

ph: 612-624-7235  
fax: 612-624-6777  
email: westb007@umn.edu

We are greatly appreciative of the effort of researchers in examining our specimens. We ask, however, that these instructions be followed so that specimens will retain their usefulness to future research.

1. Specimens must be stored in insect-free, airtight cases. Additionally, specimens must be handled with the utmost care. They must not be subjected to laboratory environments and exposure to sunlight must be strictly limited.
2. Loans of specimens, including type specimens, are made for a period of one or two (1-2) years from time of receipt. Partial return of large loans or where difficult taxa may require more time for study is to be encouraged. Permission is required from the curator for an extension of all loans beyond the initial two-year limit.
3. Loans may not be transferred from the original borrowing institution to another without written permission of the curator.
- 4. The removal of material for molecular analyses is permitted only with prior written permission of the curator.** Specimens used in molecular analyses must be so annotated and copies of the sequence forward to GenBank or other appropriate repository with acknowledgement that it was obtained from specimens (include accession number) from the Ornithology Dep't of the J.F. Bell Museum of Natural History.
5. Acknowledgments must specify "Bell Museum of Natural History, University of Minnesota". A reprint of any publication based on the Museum's specimens should be sent to the curator upon publication.



**Appendix 3.**

**Volunteer Agreement Form**



UNIVERSITY OF MINNESOTA  
BELL MUSEUM OF NATURAL  
HISTORY VOLUNTEER  
AGREEMENT AND RELEASE

I, \_\_\_\_\_, wish to volunteer at the University of Minnesota's Bell Museum of Natural History ("**Bell**") and agree that in exchange for the opportunity to volunteer, the following terms apply:

1. I may accept or reject any volunteer assignment offered to me, but once I have accepted an assignment, I will make every reasonable effort to complete that assignment or inform Bell staff as soon as I believe I may not be able to complete it. I understand that Bell is not obligated to offer me any particular assignment.
2. I will perform assignments under the direction and control of Bell staff, and will abide by Bell policies and procedures while carrying out the assignment.
3. I understand that I am not an employee of the University and will not receive salary, benefits or other compensation, and that I do not qualify for workers' compensation benefits. I carry personal medical insurance to cover medical expenses for any injuries I incur at Bell. If someone outside the University brings a claim against me based on services I perform in good faith as part of my Bell responsibilities I may be eligible for legal defense and indemnification by the University under the applicable Regents policy.
4. I certify that I am either a citizen or permanent resident of the United States, or that I have an appropriate visa status that authorizes me to be present in the United States to participate in this volunteer experience.
5. I know volunteering can result in severe personal injury, disability, death, or property damage ("**Risks**"). Bell has no control over factors that may influence the Risks. I understand that the Risks exist even when I

follow Bell rules and directions. I voluntarily and knowingly accept full responsibility for encountering all Risks, known and unknown. Volunteering is not required by my education, residence, or employment at the University. I forever release, indemnify and hold harmless Regents of the University of Minnesota, the Bell Museum of Natural History, their directors, employees, representatives, and all other persons associated with the University or Bell ("**Releasees**") from any and all loss, cost, expense or other damage of any kind. **THIS RELEASE APPLIES EVEN TO CLAIMS BASED IN WHOLE OR IN PART ON RELEASEES' NEGLIGENCE TO THE EXTENT PERMITTED BY LAW.**

6. In the event of an emergency, Bell staff may render first aid and obtain medical treatment. I will be financially responsible for all costs incurred thereby, regardless of insurance coverage.

7. This is the entire agreement, and no other agreement, oral or written, exists outside of this Agreement.

**I HAVE READ THIS LEGALLY BINDING DOCUMENT, FULLY UNDERSTAND ITS TERMS, UNDERSTAND THAT I HAVE GIVEN UP SUBSTANTIAL RIGHTS BY SIGNING IT.**

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NAME	SIGNATURE	DATE
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**IF PARTICIPANT IS UNDER THE AGE OF 18, Parent/Legal Guardian's signature is required.**

I am the parent or legal guardian of \_\_\_\_\_ and am signing this Agreement and Release on behalf of the minor.

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Name	Signature	Date	Phone
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Address	City	State	ZIP
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**PLEASE HELP US GET TO KNOW YOU!**

The following information will help us match volunteers with meaningful volunteer opportunities and will allow us to stay in contact with you.

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Name

---

Address

---

City State ZIP

---

Telephone (Home) (work/cell)

---

Email (please print clearly) Bell membership number

**EMPLOYMENT INFORMATION**

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Current Employer Position

---

Past Employer Position

**EDUCATION**

---

High School/equivalent Location

---

College/University Location Degree

---

Other Location

**AREAS OF INTEREST**

- Events/Exhibits
- Education/Interpretation

- Clerical
- Special Assignments
- Other: \_\_\_\_\_

**FOR OFFICE USE ONLY**

Orientation Date: \_\_\_\_\_

Additional Comments: \_\_\_\_\_

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*The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran, or sexual orientation.*