

Division of Genomic Resources

Loans and Sampling Policies and Procedures

The Division of Genomic Resources collections are, first and foremost, research collections. They are available to legitimate users from the national and international scientific community. Specimens may be used for research and occasionally educational purposes. The governing consideration in any use of Museum specimens is the value, impact and potential realization of the proposed project and the rarity of the specimen. The conservation of specimens in particular and the collections as a whole is paramount, given that DGR is a consumable collection. We emphasize that destructive samples are intended to supplement research materials obtained from other sources, not replace primary data collection efforts such as field sampling of extant taxa. While we strongly encourage collections-based research, our obligation to protect the MSB's holdings may require that some requests for destructive samples be denied.

The MSB will provide limited loans of tissue from its collections to qualified researchers. Such loans are intended to supplement material from wild or captive animals obtained independently by users of the collections. Implicit in the loan agreement is the understanding that users will abide by certain requirements. In turn, the MSB will absorb the high cost of obtaining, housing, cataloging, and maintaining these samples.

Requests for sampling of MSB tissues or specimens is an explicit acknowledgment that the researcher supports legitimate scientific collecting, and that he/she values the time and effort that goes into collecting, preparing, and maintaining museum collections. In exchange for granting these samples for scientific study, we may occasionally ask researchers to provide verbal or written support of scientific collecting and our collections.

Objects considered for loan are the property of the Museum or held-in-trust and accessioned into the Museum's record. Unaccessioned or uncataloged Museum collections and other comparable objects will not be loaned. Holotype voucher specimens will not be loaned. However, at the discretion of the appropriate Curator and with approval of the Director of the MSB, if secondary type specimens (paratypes, lectotypes, symbiotypes, etc.) are available in sufficient numbers, the loan of a subset of secondary type specimens may be permissible.

Tissue Loan Policy

Unlike traditional specimens, tissue samples are depleted with each use. Thus, MSB curators have formulated the following guidelines to ensure that destructive sampling does not exhaust these limited resources. In developing these guidelines, consideration was given to policies instituted by other major tissue collections. Our overall goal is to enhance and preserve the value of the collections for scientific investigators.

I. Loan Conditions.

The following conditions must be met in advance to receiving any loan from the MSB. Other stipulations may be made by the MSB dependent upon the specifics of the loan request.

- a) Loans are made only to faculty, curators, and permanent research staff at institutions with facilities to properly house and care for specimens. Students and post-docs must request loans through their major advisor or mentor and have the major advisor or mentor sign the

loan form. Individuals who are not affiliated with such an institution may request a loan if they have made prior arrangements with an appropriate institution for housing of specimens, and if that institution agrees in writing (an email or PDF document will suffice in most circumstances) to receive the specimens on the researcher's behalf.

- b) Loans generally are made for a period of six months. At the end of the loan period it is expected that the loan be returned to the MSB. Requests for loan extensions must be made in writing to the appropriate Curator. The MSB reserves the right to cancel or deny renewal of any loan.
- c) Requests for permission to transfer specimens between institutions are handled by contacting the appropriate Curator for approval in writing and, if granted, the original loan will be closed and a new loan will be issued to the borrower at the second institution.
- d) Permission to hand-carry or ship loans to multiple institutions for comparative or collaborative research must be approved in writing.
- e) Loans are made only for the specific research defined in the original request. If alterations to the original request are needed (e.g., sequencing a different gene or using a different method than originally proposed), then written approval must be obtained from the appropriate Curator.
- f) Typically, no more than half of our holdings of a taxon from one locality will be loaned at the same time. In most cases, a request for large holdings will be divided in half, with the second loan being sent following the return of the first loan. Some loans may be further divided depending on the size, condition, and scientific value of specimens being requested. The borrower may stipulate prioritized groupings of specimens in partial shipments.
- g) The MSB is not responsible for verifying the taxonomic identification of tissues or vouchers. The MSB will assist, where possible, with identification endeavors, but the ultimate responsibility for accurate identification lies with the borrower and authors of publications using vouchers or tissues.
- h) The Museum maintains proprietary rights over the object(s) loaned. Included within these proprietary rights are intellectual property rights and patents. Commercial use of material on loan is prohibited. Patenting of products discovered in MSB specimens or ancillary materials is not allowed without the written consent of the Director of the Museum.
- i) If a borrower does not meet conditions and requirements of a loan, the MSB reserves the right to refuse future loans to that borrower until such conditions are resolved.

II. How to Request a Tissue Loan

Prior to submitting a formal Loan Application, informal inquiries are welcome, preferably by email, addressed to the Curator and Collection Manager of the collection in question.

All official requests for loans of genetic material must be in writing and addressed to the Curator of the respective division. One electronic copy (pdf) of the request on institutional letterhead containing the information below should be sent to the curator. Requests from students must be co-signed by their faculty advisor.

- a) Requests for tissue loans should contain the following items:
 - i) A cover letter outlining the request, signed by both faculty borrower and student researcher.
 - ii) A brief summary paragraph or two of the research, including other sources of material and a justification for why samples are needed from the MSB collections. This statement should specifically address the following:
 - (1) Objectives of the project and its potential scientific value
 - (2) Feasibility and time frame of the study
 - (3) Availability of material from wild populations or captive sources, including the researcher's own efforts to collect samples for the project
 - (4) Method(s) of analysis
 - (5) Qualifications of the investigator(s) to perform the laboratory work

- (6) Availability and source (cite grant number) of funding to complete the project
- iii) List of material requested:
 - (1) Specific specimens and tissue type needed and their MSB catalog numbers (available via Arctos <http://arctos.database.museum>)
 - (2) Or, if specific specimens are not needed, the number of particular tissues from a given taxon and geographic location
 - (3) Desired method of transport
- b) Should the loan be approved and the borrower is able, a **Federal Express account number** should be provided to cover shipping charges.

III. **Review and Evaluation of Requests**

Requests will be reviewed by a review team, composed of the Curator, Collection Manager and selected Museum Associates (currently 9 individuals). Final approval of a loan rests with the appropriate Curator.

- a) Availability and condition of the material for loan. In some instances, a researcher who has collected and deposited material in the MSB may request a “grace period” or “no-loan period” in order to conduct his/her own research. In such circumstances, the Director of the MSB may grant the primary collector of the material this “grace period” (up to 5 years), during which time the material is not available for loan to anyone other than the primary collector or others as approved by the collector. Such agreements must be in writing and specify the duration and conditions of the grace period; this agreement must be on file with the Curator of Collections. Upon expiration of said agreement, the material will be made available for loan in accordance with our standard loan policies unless an extension has been requested and approved.
- b) Loan requests will be evaluated on a case-by-case basis according to the following criteria:
 - i) The kind and extent of request, including whether it duplicates previous efforts.
 - ii) Availability of material from wild or captive sources, and efforts by the investigator(s) to obtain such material.
 - iii) Amount of material in the DGR collections.
 - iv) Rarity and potential to replace the samples (i.e., distribution and abundance of the taxon relative to the location of the user). Obviously each sample is irreplaceable.
 - v) Demonstrated ability of the investigator(s) to perform the work and complete the project
 - vi) Financial support for the project
 - vii) Commitment of the investigator to support the growth of collections by depositing specimens or providing reciprocal specimens to the DGR collection.
- c) Once approved, loans will be processed in the order in which they are received.
- d) Prior notification will be provided to the borrower before loans are shipped, in order to ensure safe and timely transport and receipt of the loan.

IV. **Permits**

- a) Requests for tissues must be accompanied by copies of all requisite permits.
- b) For foreign researchers, this includes a copy of all import permits required by the foreign government. If no permit is needed, the researcher must state such in writing at the time that the tissue request is submitted.
- c) Requests from foreign researchers for tissue of species regulated by the U.S. Fish and Wildlife Service (e.g., CITES-species, endangered species, marine mammals, migratory birds) will not be processed without the proper U.S. export permits; species listed only under CITES may be exported under a Certificate of Scientific Exchange if the receiving institution possesses such a certificate.
- d) Requests from U.S. researchers for tissue of species regulated by the U.S. Department of Agriculture must be accompanied by a copy of a USDA transport permit, issued to the recipient or his/her institution.

V. **Loan Receipt and Conditions**

- a) It is the borrower’s responsibility to immediately report specimen damage and/or discrepancies in the invoice.

- b) Loans that are made to other institutions by MSB are subject to the condition that, should MSB desire to recall any item for its own purposes, it may do so with 30 days notice to the borrower.
- c) Frozen tissue must be maintained in an ultra-cold facility (- 80oc freezer or liquid nitrogen) until used.
- d) Patenting of products discovered in these specimens (or ancillary materials) is not allowed without the written consent of the Director of the Museum of Southwestern Biology.

VI. Loan Return or Exchange of Material

- a) Tissues received from the DGR collections, or DNA extracted from these samples, cannot be transferred to a third party without explicit written permission from the appropriate MSB curator.
- b) The curator may request tissues in exchange for those received from the MSB collections. These may include vouchered samples for permanent disposition in the MSB, or exchanges of loans of tissues from other institutions.
- c) Tissues deposited in MSB should be well-labeled and contain complete data. In addition, voucher specimen information (including institution acronym and catalog number) must be provided, along with copies of relevant collecting permits or other documentation.
- d) Sequences obtained from MSB tissues or traditional specimens must be submitted to GenBank so that they are accessible to other researchers. These sequences must be referenced to the MSB catalog number in the following format, "**MSB:Mamm:123456**".
- e) Material is non-transferable, can only be used for the project specified in the original request, and unused portions of tissues and resulting products must be returned promptly (on or before the end of the loan period) to:

Mariel Campbell
Museum of Southwestern Biology
Division of Genomic Resources
MSC03 2020, Department of Biology
University of New Mexico
Albuquerque, NM 87131
- f) Prior to return, the borrower must email the Curator and Collection Manager, to verify an acceptable ship date. The actual date of shipment and a tracking number must then be provided.
- g) The MSB has a standard moratorium on shipping loans (outgoing or return) between Thanksgiving and the end of the New Year holiday due to both staffing limitations and the unpredictability of shipping during this time period.
- h) Great care should be taken in packing specimens for shipment. Use the following information as a guideline for shipping:
 - i) Frozen tissue: Use a minimum of 10lbs of dry ice for overnight shipments. Tissues should be double bagged in sealed plastic to prevent leakage and placed inside a protective box inside the cooler.
 - ii) Alcohol preserved tissues may be shipped in a secure container at room temperature (following current IATA.regulations for the shipment of hazardous materials).
 - iii) DNA may be shipped in a secure container at room temperature.
 - iv) Place a copy of the loan invoice in an envelope attached to the outside of the shipping container.
 - v) Insure loan and shipment for the maximum amount allowable.

VII. Upon Completion of Research

- a) Specimen re-identifications, taxonomic updates, data corrections, or the assignment of any secondary numbers to the specimens must be reported to the MSB in writing or electronically (e.g., Excel) and be associated by voucher (MSB) or tissue (NK) number by the end of the loan period or sooner.

- b) Manuscript type names will not be assigned in our electronic collection catalog or website until publication of the name.
- c) New labels may be attached to reflect proposed updates; however, original specimen tags or labels may not be modified or removed.

VI. Specimens Examined / Acknowledging MSB

- a) Specimens used in publications, reports, or presentations should be included in a "Specimens Examined" section and listed in the following format "**MSB:Mamm:123456**" for mammals, MSB:Bird:123456 for birds, etc.. Tissue (NK) numbers also should be included (if allowed by journal guidelines), or if no voucher exists.
- b) The Museum should be acknowledged in any publications or presentations that result from the use of its specimens. Acknowledgement should be given as "Museum of Southwestern Biology, University of New Mexico."
- c) A PDF electronic copy should be sent to the Museum. In addition, the borrower is asked to provide the MSB with digital copies, in the highest resolution available, of any MSB specimen images or renderings taken and used in presentations or publications. PDF's and images should be sent to the Curator c/o:

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