

# Kansas State Biorepository, Division of Mammals Specimen Loan Policy

The Kansas State Biorepository, Division of Mammals (KSB) provides loans of skins, skeletons, and fluid-preserved specimens from its collections for scientific research. Type specimens are not loaned. Researchers interested in tissues or destructive sampling should read those policies carefully before making a request.

- Specimen loans are made only to faculty, curators, and permanent research staff at recognized institutions with facilities to properly house and care for specimens. Individuals who are not affiliated with such an institution may request a loan of material only if they have made prior arrangements with an appropriate institution for housing of specimens, and if that institution agrees in writing to receive the specimens on the researcher's behalf.
- Loans are generally made for a period of **six months**. Requests for loan extensions, and for permission to transfer specimens from one institution to another, must be made in writing.
- No more than half of our holdings of a taxon from one locality are loaned at the same time. In most cases, a request for all holdings will be divided in half with the second shipment being sent after the first has been returned. Some shipments may be further divided depending on the size and condition of specimens requested. The requestor may stipulate groupings of specimens in partial shipments within the confines of this policy.
- For foreign loans, the borrower also is responsible for providing copies of all relevant import and export permits. If permits are not necessary, that should be stated in writing at the time of the request. Loans to countries where commercial delivery services are unreliable will be granted only when specimens can be hand-carried in both directions.

Information on our holdings may be found by querying our electronic database (<http://arctos.database.museum/SpecimenSearch.cfm>), if further information is needed please contact the Curator via e-mail.

## **Loan Requests:**

All requests for specimen loans must be in writing and addressed to the Curator of Mammals. One electronic copy of the request containing the information below should be sent to the Curator at the address listed on the website. In addition, one hardcopy letter should be submitted on institutional letterhead; requests from students must be co-signed by the faculty advisor.

Requests for loans should contain:

- A cover letter outlining the request, signed by both Faculty borrower and student researcher.

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- A brief summary paragraph of the research, including other sources of material and a justification for why samples are needed from the KSB collections. This statement should specifically address:
  - 1) Objectives of the project and its potential scientific value.
  - 2) Feasibility and time frame of the study.
  - 3) Method(s) of analysis.
  - 4) Qualifications of the investigator(s) to perform the laboratory work
  - 5) Availability of funding to complete the project.
- List containing information on the nature of material needed:
  - 1) Specific specimens requested with their KSB catalog numbers.
  - 2) Or, if specific specimens are not needed, the number of specimens from a given taxon and geographic location.
  - 3) Nature of material (i.e. skin, skull, postcranial skeleton, etc.) needed.

## Review of Requests:

Requests will be reviewed on a case-by-case basis according to the following criteria:

- The kind and extent of request, including whether it duplicates previous efforts.
- Availability of material from wild or captive sources, and efforts by the investigator(s) to obtain such material.
- Amount of material in the collection.
- Rarity and replaceability of the samples (i.e., distribution and abundance of the taxon relative to the location of the user).
- Demonstrated ability of the investigator(s) to perform the work and complete the project.
- Financial support for the project.

Should the loan be approved, a Federal Express recharge number must be provided to cover shipping charges. Unless otherwise requested, all loans will be shipped via FedEx.

## Upon Receipt of Loan:

- The borrower must contact the Curator via email to acknowledge safe receipt of the specimens.
- Check number and condition of specimens, noting any discrepancies or damage incurred during transit on appropriate copy of loan invoice. Specimen damage that occurs during transit should be reported immediately. **Sign and return one copy of the loan invoice** to the Curator. The borrower is liable for damage that occurs while the specimens are in their possession.
- All skins and skeletal material must be safely stored in cases and protected against light, insects, dust, and excessive moisture; wet specimens are to be stored in 70% ethanol and away from light.

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- **Invasive procedures are not permitted without expressed written permission.** Removal of hair or skin samples for molecular analyses are considered invasive procedures and written permission must be obtained in advance (see policies for **Destructive Sampling and Tissue/DNA loans**).

## **Return of Loan:**

- Prior to or at the time of return, please email the Curator with the date of shipment and a tracking number.
- Return the loan in the same wooden box(es) in which it was received and via the same carrier.
- Specimens must be packed in such a manner as to protect them from shock, moisture, or excessive heat. Skins should be wrapped in material similar to that used in shipment to borrower.
- Use only toilet paper or similar soft paper as packing for skulls. Do not use cotton batting or polyester packing in contact with skulls.
- Place address labels on inside as well as outside of package.
- Shipment must be insured for the same value indicated on the original loan invoice.
- If specimens were fumigated while in your care, please state what pesticide was used.

In the case of re-identification of specimens, the new designations should be provided to KSB, curatorial staff when specimens are returned to the Museum. These data can be provided on a copy of the original loan invoice, or in a separate list that contains the KSB catalog numbers and respective new identifications (either in text or spreadsheet format).

# Kansas State Biorepository, Division of Mammals

## Tissue Loan Policy

Unlike traditional specimens, tissue samples are eventually depleted with use. Thus, KSB Curators have formulated the following guidelines to ensure that destructive sampling does not exhaust these limited resources. These guidelines also apply to destructive sampling of traditional museum specimens (e.g., skin and skeletal material) for biochemical, isotope, or other kinds of analyses. For additional information on requests for destructive sampling of museum specimens, see our **Destructive Sampling Policy**.

In developing these guidelines, consideration was given to policies instituted by other major tissue collections. Our overall goal is to preserve the value of the collections for present and future use.

### **General Philosophy:**

The KSB 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 KSB will absorb the high cost of obtaining, housing, cataloging, and maintaining these samples.

Requests for sampling of KSB 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.

### **How to request a tissue loan:**

All requests for loans of genetic material must be in writing and addressed to the Curator of Mammals. One electronic copy of the request containing the information below should be sent to the Curator at the address listed on the website.

Information on our holdings may be found by querying our electronic database (<http://arctos.database.museum/SpecimenSearch.cfm>), if further information is needed please contact the Curator via e-mail.

Requests for tissue loans should contain:

- A cover letter outlining the request, signed by both Faculty borrower and student researcher.
- A brief summary paragraph of the research, including other sources of material and a justification for why samples are needed from the KSB 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.

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- 4) Method(s) of analysis.
  - 5) Qualifications of the investigator(s) to perform the laboratory work
  - 6) Availability of funding to complete the project.
- List containing information on the nature of material needed:
    - 1) Specific specimens needed and their KSB catalog numbers.
    - 2) Or, if specific specimens are not needed, the number of samples from a given taxon and geographic location.
    - 3) Desired method of transport (e.g., frozen, 95% ethanol). Tissues will be sent in ethanol if method of transport is not specified.

Should the loan be approved, a Federal Express recharge number should be provided to cover shipping charges.

### **Review of Requests:**

Requests will be reviewed on a case-by-case basis according to the following criteria:

- The kind and extent of request, including whether it duplicates previous efforts.
- Availability of material from wild or captive sources, and efforts by the investigator(s) to obtain such material.
- Amount of material in the KSB collection.
- Rarity and replaceability of the samples (i.e., distribution and abundance of the taxon relative to the location of the user).
- Demonstrated ability of the investigator(s) to perform the work and complete the project.
- Financial support for the project.

### **Permits:**

Requests for tissues must be accompanied by copies of all requisite permits.

- For foreign researchers, this includes a copy of any import permit 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.
- 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.
- 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.

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## Loan Receipt and Conditions:

- It is the borrowers responsibility to immediately report specimen damage and/or discrepancies in the invoice.
- Loans that are made to other institutions by the KSB are subject to the condition that, should KSB desire to recall any item for its own purposes, it may do so with 30 days notice to the borrower.
- Frozen tissue must be maintained in an ultra-cold facility (-80°C freezer or liquid nitrogen) until used.
- 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.

## Return or exchange of material:

- Tissues received from the KSB, or DNA extracted from these samples, cannot be transferred to a third party without express written permission by the KSB Curator.
- The Curator may request tissues in exchange for those received from the KSB collections. These may include vouchered samples for permanent disposition in the KSB, or exchanges of loans of tissues from other institutions.
- Tissues deposited in KSB 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.
- Sequences obtained from JKSB tissues or traditional specimens should be entered into GenBank (<http://www.ncbi.nlm.nih.gov/>) so that they are accessible to other researchers. These sequences must be referenced to the KSB specimen catalog number. **Format should be as follows: “KSB:Mamm:12345”.** For GenBank submissions, the catalogue number should appear in both the Definition and Voucher fields.
- Material is non-transferable and unused portions of tissues and resulting products must be returned promptly (on or before the end of the loan period) to:

Andrew G Hope  
Kansas State Biorepository  
Kansas State University  
116 Ackert Hall  
Manhattan KS 66506.

Great care should be taken in packing specimens for shipment. Use the following information as a guideline for shipping:

- Frozen tissue: Use a minimum of 10lbs of dry ice for overnight shipments. Tissues should be double bagged in plastic to prevent leakage.
- Alcohol preserved tissues may be shipped in a secure container at room temperature (following current regulations for the shipment of hazardous materials).
- DNA may be shipped in a secure container at room temperature.

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- Place a copy of the loan invoice in an envelope attached to the outside of the shipping container. Insure loan and shipment for the maximum amount allowable.

# Kansas State Biorepository, Division of Mammals

## Destructive Sampling Request Policy

Researchers may request samples of skin, hair, toe pads, or bone from traditional specimens for DNA, isotope, or other analyses. However, because our collections are finite resources, one of our primary responsibilities is to protect the KSB holdings to insure that they are available for use by future generations of researchers.

Requests for destructive sampling of museum specimens should follow the same general guidelines as for tissues. While we do approve such requests, they are evaluated more stringently than other requests.

As the number of destructive sampling requests has grown, it has become necessary to implement the following guidelines regarding destructive use of museum specimens:

- Requests for destructive sampling will be considered on a case by case basis by the Curator.
- Requests for destructive sampling must contain compelling reasons why the project cannot be completed without the use of museum specimens. This includes evidence that (a) the research question being addressed is explicitly historical and thus requires the use of museum specimens, or (b) the taxa of interest cannot be sampled directly from the field.
- Requests for destructive sampling should provide evidence that the investigators have experience with associated analytical procedures (e.g., PCR amplification and sequencing of DNA from museum skins), and that the proposed studies are likely to generate useable data.
- If permission is granted to remove specimen parts (e.g., skin clips, reproductive organs, stomach contents), those parts must be labeled with the KSB catalogue number by the researcher and returned with the specimens. Any slide preparations (e.g., SEM stubs, histological, karyological), are to be returned properly labeled.
- The actual destructive sampling will normally be performed by staff at KSB unless other arrangements have been formally made.

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 KSB's holdings may require that some requests for destructive samples be denied.

### **Use of Photographs, Fieldnotes, and Correspondence:**

- Photographs (including photographs of specimens), field notebook pages, correspondence, and other archival materials may not be reproduced, distributed, publicly displayed or otherwise used, in whole or in part, without written permission from the KSB. No materials may be used for commercial or financial gain.
- When permission is given, materials may be used, downloaded, reproduced, publicly displayed, distributed or reprinted by persons affiliated with academic and/or non-profit organizations for scientific and scholarly purposes only, provided that the following attribution appears in all published use: "With the permission of The Kansas State Biorepository at Kansas State University"
- Use of photographs or other KSB materials on personal or academic web sites must be

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## Destructive Sampling Request Policy

authorized by the Museum. Images must be credited to the “KSB, Kansas State University.”

- Publication permission is given for ONE TIME USE only.

Physical copies of KSB written materials and photographs are charged at cost. There is no charge for the use of online/electronic materials.

For further information or to submit a request, contact the Curator.

# Kansas State Biorepository, Division of Mammals Specimens Examined / Acknowledging KSB

Specimens used in publications, reports, or presentations should be included in a “Specimens Examined” section and listed in the following format “KSB:Mamm:12345”.

The Museum should be acknowledged in any publications that result from the use of its specimens. Acknowledgement should be given as "Kansas State Biorepository, Kansas State University" One electronic PDF file of each publication should be sent to the Museum c/o:

Dr. Andrew G Hope, Curator of Mammals – [ahope@ksu.edu](mailto:ahope@ksu.edu)  
Kansas State Biorepository  
Kansas State University  
116 Ackert Hall  
Manhattan KS 66506.