

University of Alaska Museum of the North



Mammal Collection Loan Request Form

Please read and follow these instructions carefully.

- *Fill out every applicable field (fields will automatically expand as necessary).*
- *Sign and email the completed form to the Curator (Link Olson, link.olson@alaska.edu) and Collection Manager (Aren Gunderson, amgunderson@alaska.edu). If you are requesting frozen tissues, also copy the Genomic Resources Collection Manager Kyndall Hildebrandt (kbhildebrandt@alaska.edu)*
- *Review the conditions that apply to granted requests on our web page and be aware that compliance with these conditions will be considered when evaluating future requests from you, your advisor, or your lab PI.*

Date of request:2014-11-03

Your name:Pam Groves

E-mail address:pgroves@alaska.edu

Your current position (e.g., graduate student, faculty researcher, etc.): Research Scientist

Advisor's name (if student or postdoc):n/a

Institution (where research will be conducted):UAF, Institute of Arctic Biology

Street address (where loan will be sent): I will pick up

Shipping is paid by the recipient. We ship via Fed-Ex only:

Please list Fed-Ex account number to be charged here: n/a

If other shipping arrangements are needed please enter details here:

Phone number (required for deliveries): 474-7165

For destructive/consumptive requests (e.g., frozen tissues, samples for stable isotope analysis), please provide the name of the Principal Investigator whose lab will be used (if different from advisor): Pam Groves

Project title (to be made publicly available on UAM's collection database):

Identifying Hairs in Pleistocene Squirrel Nest

Brief summary of the proposed research. This should address the following:

1. Objectives of the project
2. Complementarity of proposed research to previous or ongoing studies
3. Data to be obtained and methods of analysis
4. Feasibility and time frame
5. Qualifications of the investigator(s) to conduct the research

On the Alaskan North Slope in summer 2014, we found a ground squirrel nest frozen into a river bluff. The nest was made of an assortment of hairs of different colors, lengths and sizes. We are trying to identify the hairs by comparing them to hairs from known species. All hairs will be measured and photographed with the scanning electron microscope (SEM). We will compare known hairs with hairs found in the nest to try to figure out what the nest was made of. We be obtaining a radiocarbon date on the nest. Knowing what species were living on the North Slope and when will compliment our ongoing research on North Slope megafauna (Mann DH, Groves P, Kunz ML, Reanier RE, Gaglioti BV (2013) Ice-age megafauna in Arctic Alaska: extinction, invasion, survival. Quaternary Science Reviews 70(0): 91-108). We anticipate photographing all the hairs by December 2014. The entire project should be complete by September 2015. Both Pam Groves and Ben Gaglioti have used the SEM to identify other hair and plant samples.

Briefly explain your efforts to obtain material from other sources and why the requested UAM specimens are necessary for this project:

We have collected hair from other modern species that were available to us from pets, old hides etc. But we still need marmot, ground squirrel and large feline hairs. We need very small samples and the UAF Museum seems to be a logical source for these samples.

Have you (or your current advisor/Lab PI) previously borrowed or used material from UAM's Mammal Collection? Yes No

If you answered "yes":

Have all resulting publications, GenBank accession numbers, or other products been communicated to UAM? Yes No

Were all UAM specimens included in any published study individually identified by UAM catalog number? Yes No No resulting publications

Please indicate how data you will obtain from UAM specimens will be made available to the scientific community (e.g., publications, GenBank accessions, MorphoBank submissions):

A scientific paper will be published with the results of the project. We will provide UAM with copies of photos of all hairs obtained.

If this is a request for destructive sampling (e.g., hair, bone, skin, or other material to be permanently removed from a specimen; does not apply to consumptive requests for frozen tissues), please describe the type and amount of material you are requesting and your experience and expertise in obtaining similar data from similar specimens or samples:

We need about 5 hairs from each species 1-2 inches in length. Pam Groves has done work like this before with other hair samples.

Source of funding for the proposed research (if applicable):

BLM

If NSF funds are being used for the proposed research, please provide:

***NSF project title:**

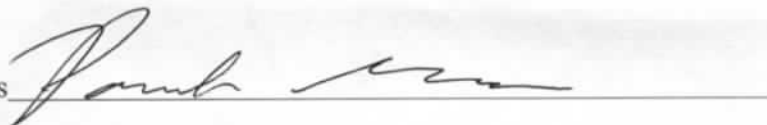
***NSF Award Number:**

***NSF abstract URL:**

**Because we rely on funding from the National Science Foundation to support our collections, we ask that you provide this information to further demonstrate and document NSF's support of collection development and use. Knowledge of other sources of funding for collections-based research is also helpful in our efforts to continue obtaining funds for supporting the collection and making specimens freely available to the scientific community.*

Material requested. For each specimen requested, please provide the UAM *catalog* number (do not use any other number), scientific name, and specimen part (e.g., frozen tissue sample; skin; skull; etc.). Tabular data downloaded from Arctos and edited in Excel or any word processor can be pasted directly into the field below. If you are not requesting a specific specimen (e.g., if you only need a tissue sample from a single representative of a particular taxon), please provide as much information on what you are requesting as possible.

Pamela Groves
Signature



Advisor's signature

(for graduate students or postdocs, your advisor or major professor must cosign)