

Guidelines for Destructive Sampling

Including tissue sampling and dissection

This short guide sets out what is required from investigators who are proposing to carry out destructive sampling of AMNH mammal specimens and the process by which applications are approved or denied. Examples of destructive sampling include tissue sampling for molecular studies (by skin clips or other means), dissection of specimens for anatomical research, sectioning of teeth and bones, coating of specimens (or parts of specimens) for SEM use, making molds of teeth, and plucking hairs for specific studies or reference purposes.

Application

Requests for destructive sampling should be made in writing to the Collections Manager, Darrin Lunde (lunde@amnh.org). Each such request must include, as a minimum requirement, the information from the list below. To simplify the application process, a form is provided at <http://research.amnh.org/mammalogy/docs/samplingapplication.pdf>.

- a) The purpose of the research and its scientific merit.
- b) The sampling methods to be employed.
- c) Why the chosen protocol is the least intrusive method possible.
- d) Evidence of the researcher's competence with the protocol.
- e) Which gene(s) will be sequenced if the project is molecular.
- f) Why museum material is preferred to freshly obtained specimens.
- g) Why it is necessary to use AMNH specimens (as opposed to material from other institutions). This should include evidence that the researcher has been in contact with other institutions to obtain specimens.

If the project is to be undertaken by a graduate student, the request should be made by the student's academic advisor, who will be required to confirm that the student has the necessary expertise and funding to carry out the work. In all cases, the investigator should be able to provide reasonable assurance that the results of the study will be published in a refereed journal.

Assessment

Requests for destructive sampling require the formal approval of the Department of Mammalogy curators. To approve the request, the curators must be satisfied that the following criteria have been met:

- a) The research is of sufficient scientific merit to justify destructive sampling.
- b) Adequate justification has been given for the use of museum material.
- c) The protocol will not significantly compromise future use of the specimen(s).
- d) The researcher has sufficient experience and funding to successfully complete the proposed work.

As a general rule, it is unlikely that approval will be granted for destructive sampling of rare material or specimens that represent extinct or endangered species unless a particularly compelling case has been made to do so.

Approval

If the proposal is approved, the applicant will be informed of the decision and any restrictions stipulated with regard to the scope of the material to be sampled, methods of evaluation, standards for processing and documentation, timeframe for publication, etc.

Failure to comply with the terms and conditions set by the department in previous transactions may be grounds for denying new requests. Likewise, failure to abide by the terms of the current transaction may be grounds for denying future transactions.

Implementation

The Department of Mammalogy does not provide sampling services and researchers are expected to take samples themselves. This will usually involve a visit to the museum for this purpose. It is the researcher's responsibility to schedule his or her visit with the Manager of Visitors (mammvisits@amnh.org). In some circumstances, sampling activities may be approved for specimens going on loan, in which case, the Destructive Sampling Application will suffice as a loan request.