

Idaho State University • 921 South 8<sup>th</sup> Avenue, Mail Stop 8096 • Pocatello, ID 83209-8096 (208) 282-3168 phone • (208) 282-5893 fax • <u>imnh@isu.edu</u>

# APPLICATION TO CONDUCT COLLECTIONS BASED RESEARCH AT IMNH<sup>1</sup>

The Idaho Museum of Natural History (IMNH) maintains space for scientific research of our collections. We have several faculty and staff that can assist with research questions and inquiries. The IMNH understands and respects the importance of making its collections available for analysis and study by not only external researchers but the general public as well. As per our adherences to the ethical standards of the American Alliance of Museums we work diligently to strike a balance between our caring and preserving of collections with the goals of scientific research. We do this in order to preserve our collections for future generations.

We receive numerous applications each year to conduct scientific research on our collections. In order to protect our collections, we require all applications to be thoroughly reviewed. As this process is vital to the long-term preservation of our collections, this process can take a minimum of 1 month in advance of work, but can take up to 3 months. Our collections staff will assess the suitability of the project and base these decisions on a number of different criteria, which are listed in Appendix A: Proposal Requirements. Researchers filing application to use museum collections are expected to indicate thorough knowledge of previous work undertaken and must provide bibliographic references.

This application is to be used when submitting requests for samples for analytical study. This includes requests for both non-destructive and destructive analyses of IMNH collections, including Repository materials. The application should be completed regardless of whether the analysis is to be undertaken on the Museum's premises or externally and includes projects supervised by or in collaboration with Museum staff, ISU Faculty or Federal/State Agencies.

The criteria for analysis include:

- Description of the project that includes research methodology, expected results, and significance
- Feasibility of project in terms of time spent using the collection
- Researcher curriculum vitae outlining experience and expertise related to the collections use request
- For destructive analysis, a detailed description of why non-invasive or non-destructive analysis cannot be used as well as a detailed description of the size and weight of sample required
- Previous work completed on same material
- The anticipated results of this research in publications

The application requires completion of several agreements depending on the type of analysis. If the information provided in the application is incomplete or insufficient to review the application in an acceptable manner, further information may be requested. The application should be submitted at least one (1) month in advance of work, at least two (2) months in advance in the case of destructive analysis and summer time requests (June through August). The review process can take up to three (3) months for more involved proposals. Federal collections will require additional approval by the appropriate agency; agencies may add other requirements, such as the need to consult with tribes under ARPA or NAGPRA when required (e.g. destructive analyses). Access to our collections cannot be guaranteed on short notice.

In the event that two or more applications for overlapping or similar research are received, we may ask those researchers to collaborate. If the collections item(s) is/are very fragile, and/or where the suggested analytical equipment/techniques (or more suitable non-destructive techniques) are available at IMNH or the Idaho State University, collaboration will be suggested.

Applicants should be aware that if permission for research is granted, the following conditions will apply:

• Any agreed upon costs of sampling by IMNH shall be paid by the applicant

<sup>&</sup>lt;sup>1</sup> (Adapted from American Alliance of Museums Code of Ethics and British Museum Policies)

- All samples owned by the IMNH, including raw digital replication files (image stacks, surface or internal scan data), will remain the property of IMNH (all mounted and residual samples shall be returned to the IMNH within one year unless otherwise agreed), and all samples owned by Federal Agencies remain the property of the Federal Agencies and will be returned to the IMNH within one year
- All results and analytical data must be submitted to the IMNH upon publication; if not published, data must be made available in a reasonable time frame as suggested by best-practices for the specific research field
- Samples may only be used for the purpose(s) outlined in the application (any other purpose must be the subject of a new application)
- One digital copy and one hard-copy of any publications arising from the work must be provided to the IMNH
- Any publication should acknowledge "Idaho Museum of Natural History, Pocatello" and the appropriate collection or repository/agency from which the specimen/data was derived

An applicant's or an Institution's previous conduct with respect to each of these conditions will be taken into account when reviewing subsequent applications. Failure to comply may result in denial of future requests. IMNH may also consult with colleagues at other institutions when assessing applications, particularly if samples have been requested from several collections.

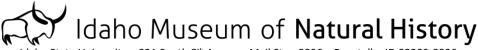
#### How to apply

To request access for collections based research, applicants must submit 1) the Conditions for Conducting Collections Based Research at IMNH form, 2) a research proposal, and 3) a curriculum vitae for the Principal Investigator. Any application lacking one or more of these documents will not be considered. If analyses are to be destructive, applicants must also complete the Request to Conduct Analytical Sampling form. The required proposals should address all sections (1–12) provided in the attached *Proposal Requirements*. Forms and proposals may be submitted electronically to the appropriate collection manager as listed below:

Dr. Amy Commendador Archaeological Repository & Earth Sciences Division Collections Manager commamy@isu.edu, (208) 282-3042

Amber Tews Anthropology Collections Manager tewsamb2@isu.edu, (208) 282-2451

Dr. Indah Huegele Life Sciences Collections Manager indahhuegele@isu.edu, (208) 282-2815



Idaho State University • 921 South 8<sup>th</sup> Avenue, Mail Stop 8096 • Pocatello, ID 83209-8096 (208) 282-3168 phone • (208) 282-5893 fax • <u>imnh@isu.edu</u>

## CONDITIONS FOR CONDUCTING COLLECTIONS BASED RESEARCH AT IMNH

If permission to receive sample(s), for temporary loan of material or to grant access is given, I,

hereby undertake to:

- a. make available to the Museum all the analytical data and results of the analyses/examination undertaken (two or more copies) upon publication; if not published, data must be made available in a reasonable time frame as suggested by best-practices for the specific research field,
- b. provide one digital copy and one hard copy of relevant reports and publications,
- c. pay any agreed costs of sampling by staff or costs associated with providing access or a temporary loan if such payment is requested,
- d. where samples have been provided, return all mounted and residual samples within one year (longer periods must be agreed in writing),
- e. use the samples or material provided on temporary loan only for the purpose(s) outlined in this application (any other purpose must be the subject of a further application). Material must not be displayed or passed to any other individual and applicants must not allow others to undertake analysis on their behalf without explicit permission,
- f. comply with the conditions and requirements for loan and return of material for examination/analysis that are outlined in the attached Appendix,
- g. adhere to the submitted research proposal for examination/analysis (whether such work is to be undertaken on the Museum's premises or externally),
- h. comply with all relevant policies and guidance on object handling.

Signature<sup>‡</sup>

Date

For temporary/contract staff or students, the form must also be signed electronically by the supervisor of the department/institution undertaking to ensure that the applicant fulfils his/her agreed obligations.

Supervisor of department	
Signature <sup>‡</sup> :	Date:
Printed Name :	
Position:	

<sup>‡</sup> An electronic signature should be used

### APPENDIX A: PROPOSAL REQUIREMENTS

- 1. Name of project
- 2. Name of applicant

Address of institution to which applicant belongs

- Position held in institution
- Telephone no.

Email

- 3. Name and address of any organization sponsoring application
- 4. Name of analyst (if different)

Telephone no.

Email

5. Name and address of Institution where analysis will be carried out (if different)

(Have you contacted the Lab doing the Analysis?)

- 6. Details of object(s) to be sampled or accessed
  - (a) department, accession number(s), object description and material(s) of which each object is composed
  - (b) Has the relevant curator with responsibility for the object(s) been contacted (please indicate name of curator)?
- 7. Technical reasons for request: i.e. nature of analytical project and justification. A detailed proposal is required which should include information on supporting results and comparative analyses where relevant
- 8. Details of methods of analysis/examination
  - (a) Details of the proposed methods of examination or analytical technique(s), including the accuracy and precision of selected methods and benefits/limitations compared to other techniques, standards used (if appropriate) and the relevant experience of the analyst,
  - (b) Describe the size and position of sample(s) required (including size of damaged area) and method of taking sample; accuracy and precision of technique(s) on this size of sample; extent to which prepared/residual samples can be returned for use by future researchers,
  - (c) If you propose to use portable analytical techniques involving ionising or non-ionising radiation (other than ambient light) on premises, please provide full details of safety measures that will be in place for the duration of the work,
  - (d) If you propose to use portable analytical techniques or undertake measurements on Museum premises, please describe potential impacts on the object(s) to be accessed arising from exposure to the technique itself (chemical/physical alteration) or amount and type of handling/manipulation necessary to facilitate application of the technique,
  - (e) If destructive analyses are requested, explain why non-invasive or non-destructive analyses cannot be used to address research questions,
  - (f) For destructive analyses, a detailed description of the sample size and/or weight required
- 9. Are any other museums being approached for samples or access? If so give the name of each and the curator to contact
- 10. Give references to any relevant papers already published
- 11. Indicate when and where the results of this study will be published
- 12. If you have requested samples or temporary loan of material please describe the storage, security and working conditions that are/will be in place for appropriate care of this material

Note: before any loan of material (other than small samples) can be agreed the applicant should read the attached Appendix which sets out the requirements for loans of materials

# <u>APPENDIX B:</u> CONDITIONS AND REQUIREMENTS FOR THE LOAN FOR ANALYSIS OF COLLECTION MATERIAL

#### This Appendix only needs to be read by those who have requested the temporary loan of samples or material

To ensure safe storage and curation of collection material loaned for analysis we ask that the following conditions are met:

#### Storage

1. For material(s) requiring special environmental requirements, the conditions specified by the relevant curator/conservator should be adhered to. Fluctuations in temperature and humidity should be recorded and must be limited.

2. All loaned material must be stored using packing containers and materials approved by the IMNH, out of direct sunlight and protected from dust and pests.

3. While in their possession, the borrowing institution or researcher is responsible for all costs associated with safely and properly storing the borrowed materials.

#### Handling and Processing

A Method Statement must be agreed with the IMNH prior to any processing of material. This Statement is to be included within the required Research Proposal should address the points listed below, but is not limited to them; each Statement will need to take account of the individual nature of the material covered. Please see *Proposal Requirements* for additional details.

1. Suitable safeguards should be used to avoid the contamination or loss of materials which may be used by other researchers in the future for other types of analysis. Where appropriate gloves and other PPE should be worn.

2. The utmost care must be observed in all examination processes. Un-marked material should not be commingled or separated and no marking or direct labelling should be undertaken without explicit permission from the IMNH. Wherever possible, material should be handled on a cushioned surface. The use of adhesives should be avoided and only applied by suitably qualified persons (such as conservators) and only with explicit permission from the IMNH.<sup>1</sup>

3. Skeletal remains should not be washed without explicit permission. If such permission is granted the bones should not be saturated and minimal amounts of water used.

4. Bones should not be brushed or cleaned without explicit permission. If such permission is granted they should be carefully dry brushed with a synthetic bristle brush and all material removed should be bagged and retained. Care should be taken not to lose any small bones.

5. If it has been agreed with the IMNH that dentition is to be examined it should be <u>carefully</u> cleaned (once permission has been granted) to ensure that calculus deposits are not removed and that the surfaces of teeth are not marked. Dry brushing should be avoided as it can damage the surface tissues (enamel) and affect future research (e.g. dental microwear studies). If possible, teeth should be cleaned with a high quality cotton wool and 70% alcohol (e.g. Industrial Methylated Spirit).<sup>1</sup>

6. Dried soft tissue or any other adhered material should not be removed from the bones.

7. Any activity which may affect future research on the material should only be undertaken with explicit permission and should be fully recorded. This includes X-ray analysis, including computed tomography (CT) exposure, as preliminary research suggest that this may be detrimental to the survival of ancient DNA.<sup>2</sup>

8. The need and extent of any photography to be undertaken should be outlined in the Method Statement. Permission for this will be determined according to the sensitivity of the material in question.

9. The Borrowing institution assumes all risk involved with the handling and processing of loaned IMNH materials. The borrowing institution also agrees to promptly notify (within 24 hours) the relevant IMNH employee handling their loan of any damage (outside of destructive analysis methods) that has occurred.

#### Risk

1. Unless explicitly agreed otherwise, loaned material must be returned to the Museum in the same condition (excluding any agreed sampling, cataloguing, identification, or other items identified in the Methods Statement) as it was lent. A condition report will normally be compiled immediately prior to transport of the loan, to be agreed by the applicant on receipt of the material.

<sup>&</sup>lt;sup>1</sup> Julie A. Eklund and Mark G. Thomas (2010) 'Assessing the effects of conservation treatments on DNA in vitro', *Journal of Archaeological Science* 37: pp2831-2841 (doi:10.1016/j.jas.2010.06.019) or www.ucl.ac.uk/mace-lab/macepdf/Eklund\_JAS10\_DNA-pres.pdf)

pres.pdf)<sup>2</sup> Grieshaber *et al* (2008) 'A pilot study into the effects of x-ray and computed tomography exposure on the amplification of DNA from bone', *Journal of Archaeological Science* 35(3): pp681-697 (doi:10.1016/j.jas.2007.06.001).

2. All activity related to the loaned material must be undertaken in compliance with the Health and Safety policies of the applicant's institution and appropriately risk assessed.

3. Loan conditions: any special requirements for transport, security or insurance of loaned material (particularly in the case of registered collection material) will be indicated to the applicant before transport or shipment and will be the responsibility of the borrowing institution.



(208) 282-3168 phone • (208) 282-5893 fax • imnh@isu.edu

# **REQUEST TO CONDUCT ANALYTICAL SAMPLING**

#### IMNH TRACKING NUMBER:

DATE OF REQUE	ST:	DURATION:	
INSTITUTION:			
1 D D D D D D D D			
CITY, STATE, ZIP	CODE:		
TELEPHONE:		EMAIL:	
LABORATORY:			
		EMAIL:	
APPROVED BY:			
	Director		
	Curator		
	Representative of Federal Ag	ency (if required)	
Please attach: 1. A description	of the project including significa	nnce, research methodology, and expected re	sults as outlined under Proposal

- *Requirements* of the <u>Application to Conduct Collections Based Research</u>.
- 2. Curriculum vitae for the principal investigator

All costs of analysis, including packing and roundtrip shipping, are the responsibility of the researcher. All specimens and residual samples are to be returned. In some cases, the IMNH will require that a cast and mold be produced and sent to the IMNH prior to destructive sampling. If the IMNH determines the request requires excessive effort to prepare, the Requesting Individual may also be assessed the costs of staff time.

Requesting Individual hereby acknowledges he/she has provided accurate information and will provide IMNH and the appropriate Federal Agency, if applicable, with a complete copy of the analytical outcomes, including raw data, resulting from the sampling and any and all publications in which the object/specimen as listed. Requesting Individual agrees to conditions outlined above:

Signature, Requesting Individual

Date