

**Complete Guidance for Collection and Deposit of NPS Threatened and Endangered  
Animal Tissue Samples  
in the  
Ambrose Monell Cryo Collection, American Museum of Natural History  
January 2010 (Rev. February 2013, December 2018)**

This guidance provides complete instructions to facilitate the management of animal tissue samples from federally listed threatened and endangered (T&E) species that are collected in units of the National Park System and managed under an agreement between the National Park Service (NPS) and the American Museum of Natural History, Ambrose Monell Cryo Collection (AMCC). The instructions are for **individuals collecting** samples, **NPS permit coordinators**, **NPS curators**, and the **AMCC curator**.

**A. Overview and Contacts**

**1. *What is the NPS Endangered Species Program?***

The Endangered Species Program works to sustain and recover over a thousand populations of federally listed threatened and endangered (T&E) species in nearly fifty percent of the National Park System units. The program's mission is to reduce the risk of extinction of plants and animals in the parks, and to restore species that have occurred in parks historically but have been lost due to human activities. For more information see <http://www.nature.nps.gov/biology/endangeredspecies/>.

**2. *Why are NPS and the Ambrose Monell Cryo Collection at the American Museum of Natural History cooperating to manage tissue samples from federally listed threatened and endangered animals in parks?***

The Endangered Species Act of 1973 establishes the goal that all federally listed threatened and endangered (T&E) species be restored to the point where they are again viable, self-sustaining members of their ecological communities. To effectively manage existing populations of these species, parks need data about these populations, their genetic relationships, and movements on the land over time. DNA analysis informs park management decisions.

Launched in May 2001, the Ambrose Monell Cryo Collection (AMCC) will eventually house approximately one million frozen tissue samples representing the DNA of a wide range of animal species. Potentially the largest and most comprehensive initiative of its kind, the Museum's frozen tissue collection supports a broad range of research by providing an accessible repository of frozen tissue specimens. Researchers collect the specimens under controlled conditions using kits that the Museum provides. Documented samples, packed in special equipment, are shipped to the Museum, where they are housed in cryogenic storage in liquid nitrogen cooled vats, at temperatures below -150°Celsius. For further information on AMCC, see <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc>.

Animal tissue samples from parks are on loan to AMCC, which makes the samples available to researchers, consistent with NPS requirements, for a broad range of comparative genetic and genomic research. In a time of massive species loss, such efforts are essential in order to preserve as comprehensive a record as possible of the earth's biodiversity.

**3. *Where may the collector get a quick overview of the procedures for depositing T&E animal tissues collected in parks?***

For the collector, a quick overview is available through Frequently Asked Questions (FAQs) posted at <https://www.nps.gov/nature/science-and-research-resources.htm>.

**4. What is the contact information for the NPS Endangered Species Program Manager?**

William Austin  
At-Risk Species Coordinator  
National Park Service  
1201 Oakridge Drive, Suite 200  
Fort Collins CO 80525  
970-267-7216  
[william\\_austin@nps.gov](mailto:william_austin@nps.gov)

**5. What is the contact information for the Park Permit Coordinator?**

Go to <https://irma.nps.gov/rprs/Parks/Search> and select the park. The park permit coordinator contact information will appear.

**6. What is the contact information for the Park Curator?**

Go to <https://irma.nps.gov/rprs/Parks/Search> and select the park. The park curator contact information should appear in the Park Conditions. If not, request the contact information from the Park Permit Coordinator.

**7. How do I contact the AMCC Collection Manager and Curator-in-Charge?**

Go to <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/amcc-staff>.

**8. Where can I get a copy of the AMNH/NPS Agreement on Management of NPS Tissue Collections?**

The Agreement is posted at <https://www.nps.gov/nature/science-and-research-resources.htm>.

**9. Whom do I contact if I have questions about the AMNH/NPS Agreement, collection of T&E samples, or management of the tissue samples under the Agreement?**

For questions about implementation of the Agreement, contact one of the following key officials, depending on the nature of your question.

For Threatened and Endangered Species matters:

William Austin  
At-Risk Species Coordinator  
National Park Service  
1201 Oakridge Drive, Suite 200  
Fort Collins CO 80525  
970-267-7216  
[william\\_austin@nps.gov](mailto:william_austin@nps.gov)

For Legal, Administrative, and Collections Management matters:

Ann Hitchcock  
Curator and Senior Advisor for Scientific Collections  
National Park Service  
1849 C Street, NW (Room 7348)  
Washington, DC 20240  
Tel: 202-354-2271  
E-mail: [ann\\_hitchcock@nps.gov](mailto:ann_hitchcock@nps.gov)

For questions about collections management in general, contact the park curator, regional curator, or the Museum Management Program, WASO.

**10. What is the link to the AMCC web site with information about the NPS Special Collection?**

The link to the AMNH/AMCC web site is <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection>.

You may also be interested in the following links on the AMNH/AMCC web site:

AMCC Collection Policy (<https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/collections-policies>)

AMCC Loan Procedures (<https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/request-loans>)

**11. Where can I find this document, Guidance for Collection and Deposit of NPS Threatened and Endangered Animal Tissue Samples in the Ambrose Monell Cryo Collection, American Museum of Natural History, online?**

This document is at <https://www.nps.gov/nature/science-and-research-resources.htm>.

**12. Where can I find the AMNH/AMCC NPS Specimen Deposit Form?**

The AMNH/AMCC NPS Specimen Deposit Form is available on the NPS web site at <https://www.nps.gov/nature/science-and-research-resources.htm> and on the AMCC web site at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/guidelines-for-depositing-specimens-in-the-nps-special-collection-at-the-amcc>.

**B. Collector Responsibilities**

If you are applying to collect tissue (blood and other tissue) samples from federally listed threatened and endangered (T&E) animal species found in national parks, you may be required to follow specific procedures to facilitate deposit of samples in the NPS Special Collection at the Ambrose Monell Cryo Collection (AMCC) at the American Museum of Natural History (AMNH). The AMCC partners with NPS to enable long-term comparative studies of T&E species from national parks. Samples are on loan from NPS to AMNH in accordance with an AMNH/NPS agreement (available at <https://www.nps.gov/nature/science-and-research-resources.htm>). Below are frequently asked questions about samples going to the AMCC.

**1. Must all T&E tissue samples be deposited in the NPS Special Collection at AMCC?**

No. The NPS At-Risk Species Coordinator determines, on a case-by-case basis, when samples will be deposited at AMCC. In most cases, samples will not be required from all individual animals sampled in a study. Contact the park permit coordinator to find out if samples that you collect will be deposited at AMCC.

**2. What must I do if I am told that T&E animal tissue samples that I collect are to be deposited with the NPS Special Collection at AMCC?**

Follow these steps:

- a. In your permit application, complete Appendix A of the application showing the Ambrose Monell Cryo Collection at the American Museum of Natural History as the repository. Because NPS has a repository agreement with AMNH, you do not need to obtain the signature of AMNH officials. Enter "AMNH/NPS Agreement" in the repository signature block.

- b. Contact the NPS At-Risk Species Coordinator, the park permit coordinator and park curator for special instructions during the application process and after the permit is issued.
- c. Contact the Collections Manager at AMCC for special instructions. Contact information is at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/amcc-staff>.
- d. Collect, prepare, and ship your samples according to the instructions on the AMCC web site at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/guidelines-for-depositing-specimens-in-the-nps-special-collection-at-the-amcc> or as instructed by the AMCC Collections Manager.
- e. Complete the AMCC National Park Service Specimen Deposit Form, available at the NPS web site at <https://www.nps.gov/nature/science-and-research-resources.htm> and AMCC web site at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/united-states-national-park-service-special-collection-documents>.

**3. How do I obtain NPS accession and catalog numbers for my specimens?**

Contact the park curator who will provide accession and catalog numbers.

**4. How do I meet the permit requirement to catalog the specimens before I ship them to AMCC?**

Contact the park curator for instructions. The park curator may want you to submit data for import to the NPS catalog record, using Microsoft Excel or Access. The Catalog Number should always be the first field in the file. Information on the NPS catalog system, including the data fields in the catalog record and instructions for importing/exporting data, is in the user manual at <https://www.nps.gov/museum/publications/ICMS.html> and at <https://www.nps.gov/nature/science-and-research-resources.htm>. Note: The name of the NPS cataloging system changed in 2009 from ANCS+ to ICMS.

**5. What information about the specimens and associated records do I include in the Investigator's Annual Report (IAR)**

Report in the IAR

- a. The status of any copies of field notes, data files, photos, or other study records that the permit requires be submitted to the park.
- b. The status of cataloging and final disposition for all collected specimens (tissue samples and other specimens) that are to be permanently retained as part of the park's museum collection.
- c. The name(s) of the repository(ies) where the samples *will be* deposited for a continuing project, and where the samples *are deposited* for a completed project.
- d. A brief description of the samples, the conditions of collecting, and how you documented the vouchers from which you collected the tissue samples (through photography or, if permitted, collection and retention of the specimen in a designated museum collection.)

The project is incomplete until you have submitted any required copies of the associated records, submitted catalog data to the park curator, and shipped the samples to the authorized repository(ies). For further information on the IAR, see <https://irma.nps.gov/content/RPRS/Index2.aspx>.

**6. How should I document collection of a voucher specimen from which I collected the tissue sample?**

If the permit authorizes collection of a voucher specimen, you must

- a. Comply with the permit conditions for documentation and disposition of collected and permanently retained specimens.
- b. Contact the park curator for instructions on submission of catalog data and documenting deposit of the specimen in the repository designated in the permit.

### **C. Permit Coordinator Responsibilities**

If you are the park permit coordinator, you must ensure that you issue and manage permits to collect T&E animal tissue samples according to these instructions.

#### **1. What should I do when a permit applicant first contacts me with a proposal to collect federally listed T&E animal tissue samples?**

Verify that the applicant has an appropriate endangered species permit from the Fish and Wildlife Service or National Marine Fisheries Service. Contact the NPS At-Risk Species Coordinator, who will determine whether the proposed samples will be deposited at AMCC.

#### **2. If the At-Risk Species Coordinator determines that samples will not be deposited in the NPS Special Collection at AMCC, but the samples are to be permanently retained, what procedures do I follow?**

Follow standard permitting procedures, working with the park curator and permit applicant to

- a. Ensure that an appropriate repository is identified in Appendix A of the permit application,
- b. Verify that the repository official has signed Appendix A agreeing to the terms and conditions of a repository loan, and
- c. Designate the repository in the permit.

#### **3. If the Endangered Species Program Manager determines that samples will be deposited in the NPS Special Collection at AMCC, what procedures do I follow?**

Coordinate with the park curator, collector, and AMCC Curator-in-Charge and Collections Manager to ensure that

- a. The samples are appropriately collected, prepared, and documented in the NPS permit, cataloging, and loan systems.
- b. The samples are collected following AMCC procedures available at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/collections-policies>.
- c. The applicant completes Appendix A of the permit application, showing the "Ambrose Monell Cryo Collection, American Museum of Natural History" as the repository. Because NPS has a repository agreement with AMNH, the applicant does not need to obtain the signature of AMNH officials. The applicant may enter "AMNH/NPS Agreement" in the repository signature block.
- d. The collector is aware of and follows the AMCC procedures, available at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/usa-national-park-service-special-collection-guidelines-for-depositing-specimens-in-the-nps-special-collection-at-the-amcc>, or as the AMCC Collections Manager instructs, for collecting, preparing and shipping the samples.
- e. The park curator is aware of the permit application, involved in the decision to deposit samples at AMCC or other repositories, and communicates with the collector to provide instructions for documenting the samples in the NPS cataloging and loan systems.
- f. A park-specific condition is added to the permit requiring deposit of copies of field notes, maps, photos, and other associated records in the park museum collection.
- g. The NPS curator notifies AMNH of Confidential Information that must be withheld from release to the public in addition to within-park specific locality information, which will always be withheld pending specific authorization by NPS.

- h. NPS provides copies of NPS and U.S. Fish and Wildlife Service or National Marine Fisheries Service permits upon request by AMNH.

**4. Will all T&E animal tissue samples authorized for collection under a single permit go to the same repository?**

Not necessarily. The NPS At-Risk Species Coordinator may determine that samples go to either AMCC or another repository.

**5. What do I need to check in the Investigator's Annual Report (IAR)?**

Check the IAR for compliance with any requirement to

- a. Deposit field notes, maps, photographs, and other associated documentation.
- b. Document the tissue samples and other collected and retained specimens in the NPS cataloging and loan systems.
- c. Deposit permanently retained samples and vouchers in the repository(ies) designated in the permit.
- d. Describe the tissue samples and other specimens authorized for collection and their current location.
- e. Identify repository(ies) where the tissue samples and other collected specimens are (or will be) deposited.

**D. NPS Curator Responsibilities**

If you are the park curator, you must follow Director's Order #24, the Museum Handbook, the ICMS User Manual, and these instructions and work with the permit coordinator, collector, and AMCC Curator-in-Charge and Collections Manager to manage the collection, preparation, documentation, and housing of the tissue samples and other specimens and associated records that are to be permanently retained in the park museum collection.

**1. How will I know about a proposal to collect T&E animal tissue samples?**

You may first learn of a proposal to collect T&E animal tissue samples (and related specimens) from one or more of four sources:

- a. An automessage that the Research Permit and Reporting System (RPRS) generates notifying you of an application in the system.
- b. A communication from the park permit coordinator
- c. A communication from the permit applicant.
- d. A communication from the NPS At-Risk Species Coordinator

**2. What should I do when I first learn of a proposal to collect T&E animal tissue samples (and related specimens)?**

When you first learn of a proposal to collect T&E animal tissue samples (and related specimens), contact the park permit coordinator to share information and discuss any proposed deposit of tissue samples in the NPS Special Collection at AMCC. (The NPS At-Risk Species Coordinator will determine whether samples will be deposited at AMCC and inform the park permit coordinator and park curator.)

**3. If the animal tissue samples will be deposited in the NPS Special Collection at AMCC, what procedures do I follow?**

Coordinate with the permit coordinator, collector, and AMCC Curator-in-Charge and Collections Manager to ensure that

- a. The samples are appropriately collected, prepared, and documented in the NPS permit, cataloging, and loan systems.

- b. The applicant completes Appendix A of the permit application showing the “Ambrose Monell Cryo Collection, American Museum of Natural History” as the repository.
- c. A park-specific condition is added to the permit requiring deposit of copies of field notes, maps, photographs and other associated records in the park museum collection.
- d. The collector is aware of and follows the NPS requirements identified in this Guidance and the AMCC procedures available at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/guidelines-for-depositing-specimens-in-the-nps-special-collection-at-the-amcc>, or separate instructions from the AMCC Collections Manager for collecting, preparing, and shipping the samples.
- e. You coordinate with the AMCC Collections Manager to convey information about the proposed collection and the exchange of NPS and AMCC catalog data about the samples.
- f. The park permit coordinator is aware of your communications with the collector and the AMCC Curator-in-Charge and Collections Manager to provide instructions for documenting the samples in the NPS cataloging and loan systems and depositing the samples.
- g. The specimens are accessioned and cataloged in the NPS system before they are deposited in the NPS Special Collection at AMCC.
- h. The collector includes the NPS catalog number on the AMNH/AMCC NPS Specimen Deposit Form, available on the NPS web site at <https://www.nps.gov/nature/science-and-research-resources.htm> and the AMNH web site at <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/united-states-national-park-service-special-collection-documents>.

**4. *What procedures do I follow to process voucher specimens associated with animal tissue samples deposited in the NPS Special Collection at AMCC?***

Follow the standard procedures for field collections:

- a. Work with the permit coordinator to ensure that the permit includes any park-specific conditions related to specimens to be permanently retained in the park museum collection.
- b. Communicate with the permit applicant to convey instructions for completing the repository information in Appendix A of the permit application, submitting catalog data, preparing specimens, completing loan documentation, depositing specimens in the repository designated in the permit, and submitting copies of field notes, maps, photographs, and other associated documentation.

**5. *What do I need to check in the Investigator’s Annual Report (IAR)?***

Check the IAR for compliance with requirements to

- a. Deposit field notes, maps, photographs, and other associated documentation.
- b. Document the tissue samples and other collected and retained specimens in the NPS cataloging and loan systems.
- c. Deposit permanently retained samples and voucher specimens in the repository(ies) designated in the permit.
- d. Describe the tissue samples and other specimens authorized for collection and their current location.
- e. Identify the repository(ies) where the tissue samples and other collected specimens are (or will be) deposited.

Until these responsibilities are met, periodically remind the collector and the permit coordinator.

**6. *What ongoing responsibilities do I have for management of the animal tissue samples at AMCC?***

You must take the following actions:

- a. Ensure that the specimens are accessioned and cataloged in the NPS system before they are deposited in the NPS Special Collection at AMCC.
- b. Upon receipt of a completed NPS Specimen Deposit Form from AMCC with the signature of the AMCC Curator-in-Charge, file it in the Accession or Catalog folder and list the corresponding AMCC catalog number in the Other Numbers field on the NPS catalog record.
- c. Upon receipt of a completed Deposit Form from AMCC with the signature of the AMCC Curator-in-Charge, complete an outgoing loan form to AMNH. In lieu of AMNH signature on the NPS Outgoing Loan Agreement (Form 10-127), reference the NPS Specimen Deposit Form and the "AMNH/NPS Agreement on Management of NPS Tissue Collections." The loan termination date will be no later than the termination date for the Agreement. The loan record is for tracking purposes only and is not provided to AMNH except upon request.
- d. Include in the NPS outgoing loan conditions reference to the terms of the AMNH/NPS Agreement on Management of NPS Tissue Collections that provide:
  - Authority for AMNH to loan NPS Specimens to third-party researchers using the AMNH-AMCC Loan Invoice and accompanying Outgoing Loan Conditions for NPS Special Collection ("Outgoing Loan") in Appendix 2 of the AMNH/NPS Agreement.
  - Authority for AMNH to make decisions regarding destructive analysis of loaned specimens.
  - Authority to approve or refuse requested loans of NPS specimens.
  - Exemption from requirement to complete the Collections Management Report (CMR) and the NPS Checklist for Preservation and Protection of Museum Collections.
  - Authority to include the loaned items in the AMCC's annual inventory of its collections and report on the results of the inventory to the NPS key official on the Agreement.
- e. Notify AMCC of Confidential Information that must be withheld from release to the public in addition to within-park specific locality information, which will always be withheld pending specific authorization by NPS.
- f. Develop funding agreements, as needed, to pay fees to AMNH for services related to the NPS Special Collection.
- g. Instruct researchers to cite in publications referencing NPS Specimens the following terms: "National Park Service Special Collection at Ambrose Monell Cryo Collection, American Museum of Natural History," park name, specimen name, NPS catalog number, and AMNH number.
- h. Update catalog records and add relevant information to the CMR when the NPS key official on the AMNH/NPS Agreement provides data (by July 31) on the NPS Special Collection. The data include information on deposits, third-party loans, fully consumed specimens, and losses of specimens.
- i. When specimens in the NPS Special Collection appear on the park's annual inventory, note that they are at AMNH/AMCC in lieu of confirming each specimen with the repository. The Agreement requires AMNH to complete a separate inventory.

**7. *What exceptions to standard NPS curatorial operating procedures are made in the AMNH/NPS agreement?***

The following exceptions apply to the NPS Special Collection at AMNH/AMCC:

- a. AMNH does not sign the NPS outgoing loan form that the park prepares for each deposit. The loan is for tracking purposes only. See 6.c.
- b. AMNH is not required to complete the CMR. AMNH provides summary information to the NPS key official, who distributes it to the parks for use in the CMR as applicable. See 6.h. and E.7.
- c. AMNH is not required to complete the NPS Checklist for Preservation and Protection of Museum Collections. The AMCC storage is so specialized that few of the checklist questions apply. NPS oversight for the storage conditions is accomplished through an annual meeting.



- d. The AMCC Collections Manager completes an inventory of NPS specimens, according to the terms of the Agreement, in lieu of responding to the park's request to verify location and condition of the specimens for the park's annual inventory.

## **E. AMCC Curatorial Responsibilities**

1. Manage the NPS Special Collection in the AMCC storage facility and identify NPS specimens in the online AMCC Database available to researchers.
2. Make available on the AMNH website the NPS Specimen Deposit Form and instructions for depositing NPS Specimens. See <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/united-states-national-park-service-special-collection-documents> and <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/guidelines-for-depositing-specimens-in-the-nps-special-collection-at-the-amcc>.
3. Send NPS park curator a copy of the completed Deposit Form, with AMCC catalog number and AMCC Curator-in-Charge's signature, when a deposit is accepted.
4. Label specimens according to standard AMCC procedures and include NPS catalog number on label in the twelve (12)-character format: "NPS PARK #######" where "PARK" is the acronym of the park.
5. Make NPS Specimens available for distribution through the AMCC online catalog, which includes:
  - a. NPS catalog number (including park acronym)
  - b. The name "National Park Service" and the name of the national park system unit where the specimen was collected
  - c. Scientific name
6. Provide access to and distribute NPS Specimens to requesting researchers according to AMCC access protocols and loan policy using the AMCC loan invoice (<https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/request-loans/tissue-loan-requests>) and the Outgoing Loan Conditions for NPS Special Collection (see <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics/facilities/amcc/united-states-national-park-service-special-collection/united-states-national-park-service-special-collection-documents>). Distribute only specimens with NPS catalog numbers. Maintain an ongoing record of distributions. Request NPS authorization prior to a third-party loan that would result in an NPS specimen being fully consumed.
7. Provide to NPS by June 30 an annual inventory of all deposits and third-party loans, fully consumed specimens, and losses of specimens including
  - a. NPS catalog number (including park acronym)
  - b. Scientific name
  - c. Material description, including quantity
  - d. Copies of completed NPS Specimen Deposit Forms
  - e. Copies of completed AMCC Loan Invoices
8. Randomly select and annually inventory at least 20 NPS Specimens or 20 percent of Collection, whichever sample includes fewer specimens. Report the annual inventory findings to NPS as part of the annual inventory (see Item 7). The inventory will be completed and signed by the responsible AMCC Collections Manager and witnessed and signed by another AMNH staff member who does not have direct responsibility for the Collection.

9. Keep on file copies of executed AMCC loan invoices for NPS Special Collection materials and corresponding executed Outgoing Loan Conditions for NPS Special Collection. Make copies available to NPS upon request.
10. Cite in publications referencing NPS Specimens the following terms: "National Park Service Special Collection at Ambrose Monell Cryo Collection, American Museum of Natural History," park name, specimen name, NPS catalog number, and AMNH number.