



**Wildlife and Field Studies – Standard Operating
Procedures**

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1. Overview

Purpose

The Drexel University Animal Care and Use Committee established these procedures to ensure that field studies utilizing wildlife are performed according to state, Federal, and International laws and regulations and to ensure for the proper care and use of animals used in these studies.

2. Definitions and key links

2.1 Definitions

Field conditions means in the wild, involving free-living animals. Studies of lab-bred animals in behavioral settings may involve a kind of “field” to observe their interactions, but that kind of field is not included.

2.2 Links

Animal Welfare Act Regulations (AWAR) are the specific regulations promulgated to define the implications and interpretations of the Act in practice. They are a subset of the Code of Federal regulations (see below), Title 9 CFR: Animals and Animal products, and may be found at <https://ecfr.io/>

Code of federal regulations (CFR) includes an extensive list of regulations in 50 categories. The last of these is the one most cited as CFR in this document Title 50 CFR: Wildlife and Fisheries. The list may be found at <https://ecfr.io/> Title 36 on parks and forestry is also relevant.

Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals – see <https://olaw.nih.gov/policies-laws/phs-policy.htm>. An electronic version of the “Guide” can be found in a linked page there as well.

3. Applicable Laws and Regulations

3.1 Regulations

The Animal Welfare Act Regulations (AWAR) definition of animal (§1.1) includes most birds and mammals. It excludes rats (genus *Rattus*), mice (genus *Mus*), and birds (any) when members of those categories are bred for research. Most other mammals and almost all birds would thus be included in the definition of “animal”. However, because of the PHS Policy, the IACUC is required to review all protocols involving vertebrate animals ranging from fish to mammals. The regulations specifically exempt the IACUC from the requirement to review field studies if the following conditions apply:

- Experiments do not involve an invasive procedure
- No harm done to the animal
- Experiments do not involve material alteration of the behavior of an animal under study (§2.31(d)(1)).

AWAR §2.38 (f)1 then applies: “Handling of all animals shall be done as expeditiously and carefully as possible in a manner that does not cause trauma, overheating, excessive cooling, behavioral stress, physical harm, or unnecessary discomfort.”



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Public Health Service (PHS) Policy II requires compliance with the AWA. The PHS policy III.A defines an animal as any live, vertebrate animal used or intended for use in research training, experimentation, or biological testing or for related purposes. Therefore, all vertebrate animals used in field studies are subject to the PHS Policy III.A.

The Guide (page 5) states that “Biomedical and behavioral investigations occasionally involve observation or use of vertebrate animals under field conditions. Although some of the recommendations listed in this volume are not applicable to field conditions, the basic principles of humane care and use apply to the use of animals living in natural conditions.” Thus, it is important for the IACUC to review wildlife studies conducted in the field on AWA regulated species which involve obtrusive procedures or observations. The Drexel University IACUC reviews protocols utilizing any live vertebrate animal.

The guide also states that “Investigators conducting field studies with animals should assure the IACUC that collection of specimens or invasive procedures will comply with state and federal regulations.”

3.2 Required Federal and State Permits for Field Studies

Please be advised that a single research protocol may be subject to multiple laws and therefore, multiple permits may be required. In general, both state and federal permits are needed in addition to site-specific permits for research conducted on federal- or state-owned property. The importation and exportation of samples (whether they are whole specimens, blood samples, feathers, tissues, etc.) requires the researcher to file a USFWS 3-177 (declaration of importation and exportation). Ideally, when material is hand carried in luggage, ports of entry prefer to be contacted and an inspection should be scheduled. In filing the 3-177 ideally the export permits and/or invoices from the country of origin should be submitted with the 3-177.

Below is the list of permitting agencies which may be contacted to obtain permits. For detailed information about these agencies, please contact the IACUC Office (iacuc@drexel.edu).

- ***Fish and Wildlife Services:*** Permits are by the U.S. Fish and Wildlife Service (USFWS) under federal regulations 50 CFR 1-100 specifically 50 CFR 13.
- ***CITES (Convention on International Trade in Endangered Species):*** This is an international treaty codified in the U.S. law as part of the Endangered Species Act. It regulates import and export of wildlife and plants listed in its three appendices. For more information, go to: <http://www.cites.org/>.
 - Importation of CITES I and II listed species require CITES export permits (and validation on exit) from the country of origin.
 - CITES I species require CITES export permits and validation from the country of origin and a CITES import permit from the USFWS.
 - [Certification of Scientific Exchange \(COSE\) under CITES](#) authorizes the non-commercial loan, donation, or exchange of museum, herbarium, diagnostic, and forensic research specimens. This applies to animal (non-live) and plant specimens, including forensic research specimens, that are legally acquired by a



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registered scientific institution and (re-) exported or imported under the authority of this institution.

- **Endangered Species Act:** This act prohibits the taking of any species listed as endangered or threatened. The endangered species list is found in 50 CFR 17.11. Please note that exceptions are made for scientific research and for activities that will enhance the survival of the species. Permits are required for such activities and are issued by USFWS. For more information, go to <https://www.fws.gov/law/endangered-species-act>.
- **Lacey Act:** This act and amendment to it promulgated in 1981 are not specific for research, but pertain to research involving the import and export of wildlife (50 CFR 14).
- **Marine Mammal Protection ACT (MMPA).** The 1988 amendments include the listing of conditions under which permits may be issued to take marine mammals for the protection and welfare of the animals, including importation, public display, scientific research and enhancing the survival or recovery of a species. Scientific permits are provided for by 50 CFR 18. For further information go to <http://www.nmfs.noaa.gov/pr/laws/mmpa>.
- **Migratory Bird Treaty Act (MBTA):** The specific provisions of the statute (MBTA) are described under 16 U.S.C. 703. The title MBTA is a misnomer because the Act does not apply only to birds that migrate long distances or across international borders, but to nearly 830 species of birds. Permits for MBTA are found at 50 CFR 21. Banding and marking activities require a permit under 50 CFR 21.22. These permits are issued by the U.S. Geological Survey-Biological Resources Division's Bird banding Laboratory. Other permits for scientific collecting (50 CFR 21.23) are obtained from USFWS. For further information go to: [Migratory Bird Treaty Act of 1918](#)
- **Wild Bird Conservation Act (WBCA):** It prohibits the import of any bird into the United States other than those specifically in the regulations as permissible. For any other species, a permit is required. Permits may be issued for scientific research. This law supplements CITES. The regulation for scientific permits is found at 50 CFR 15.22. For more information go to: <https://www.fws.gov/law/wild-bird-conservation-act>

3.3 Required Site-Specific Permits

These are additional permits to those described above. Notably, a permit to conduct research on a federal property does not replace the need for other relevant permits that may apply (such as state or local).

- A. **Bureau of Land Management (BLM):** It has no specific requirement or permits for scientific research activities.
- B. **National Parks:** The national Park Service (NPS) has no specific regulation pertaining to scientific research. The NPS policy for research is found in its Administrative Guide, which pertains to all scientific research, Application Procedures and Requirements for Research and Collecting Permits and the Guidelines for Research, and the Guidelines for Study Proposals. Researchers are required to submit research proposals, which are reviewed by the NPS for scientific validity and actual or potential impact of park resources, among other things. A specimen collection permit may be issued only to an official representative of a reputable



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scientific or educational institution or a State or Federal agency for specific purposes described in the regulations (36 CFR 2.5).

- C. **National Forests:** Forest Service laws and regulations prohibit all activities that are not expressly allowed by regulations or permit under 36 CFR 251, and 36 CFR 251.54. These regulations do not address scientific research specifically.
- D. **National Wildlife Refuges:** When a national wildlife refuge is created, it is considered closed to the public until it is expressly opened by its manager.

3.4 State and Law Regulations

Virtually all states regulate activities involving wildlife, including scientific research. Please consult the handbook entitled “*Wildlife Laws Handbook*” for further information. Most state regulations also require permits for research on state-owned lands.

4. Responsibilities

4.1 Drexel University IACUC Responsibilities

Protocol Review:

- A. The IACUC should review the protocol in a manner similar to routine laboratory studies, addressing species selection, site selection, and methodologies employed (see bullets B-D under *Principal Investigator Responsibilities*).
- B. The IACUC must review zoonoses and occupational health and safety issues so that the studies do not compromise the health and safety of other animals or persons working in the field. The IACUC may request the Institutional Biosafety Committee to review the procedures to ensure occupational safety and protect the health of personnel.
- C. When animals are wild-trapped, the IACUC must review trapping in terms of type of trap, frequency of checking, and euthanasia of injured or to be collected animals.
- D. **Facility review:** The institution, through the IACUC, is still responsible for all animal-related activities regardless of where animals are maintained or the duration of housing. The IACUC must have reasonable access to those areas for the purpose of verifying that the activities involving animals are being conducted in accordance with the proposal approved by the IACUC.

AWA-Regulated Species

While Federal regulation AWA §2.31(c) (2) states “That animal areas containing free-living wild animals in their natural habitat need not be included in such inspection;”, it does require semi-annual inspections of all study areas, including facilities and primary enclosures where regulated animals are held for over 12 hours. IACUC recognizes that there may be situations, such as remote field studies, in which regulated wildlife must be held for more than 12 hours at an unconventional site. If such a situation is anticipated, the investigator must include in the IACUC protocol a description of the primary enclosures to be used, such as plastic tubs or kennels, and these enclosures must be available for inspection during semi-annual IACUC inspections. For AWA-regulated species, inspections must be physically performed; videos, photographs, written descriptions, or other remote methods are not appropriate.



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PHS Policy Regulated Species and Non-AWA Regulated Species

Neither the Guide nor PHS policy addresses the issue of inspecting field studies. [OLAW's Guidance](#) states “While semiannual IACUC inspections of field study sites are not required and in many circumstances are impractical, IACUCs should be apprised of the circumstances under which studies are conducted so that they can consider risks to personnel and impact on study subjects. This may be partially accomplished by written descriptions, photographs, or videos that document specified aspects of the study site. The IACUC should also ensure that appropriate permits are in place.”

The IACUC shall decide on a case-by-case basis whether field study should be included in the semi-annual report. Practically it may not be feasible to send IACUC inspection team to field sites that are geographically distant. Thus, the IACUC may review PHS funded field activities through the use of photographs, videos and submission of comprehensive husbandry procedures.

- E. **Annual Report:** The AWAR §2.36(b) does not exclude animals used in field studies; however, collecting information on animals used in field studies is difficult since there may not be direct inspections and there is no ordering information. Thus, for PHS funded studies, IACUC will request an annual summary report from the investigator on the animal number and number of species used during the reporting period.

General Responsibility:

The Drexel University IACUC and the IACUC Office are responsible for maintaining this guidance document, training, and monitoring. All exceptions to this procedure must be approved by the IACUC. For inquiries regarding these procedures, please contact the Director of Animal Welfare, a part of the Office for Research & Innovation (ORI), or the Attending Veterinarian.

4.2 Principal Investigator Responsibilities

Any work involving vertebrate animals requires a written protocol and approval by the Institutional Care and Use Committee (IACUC) before the project starts. The information listed below should be included in the IACUC protocol form. Potential alternative methods and procedures due to unexpected conditions should be considered and listed to prevent unauthorized activities.

Deviations from the protocol must be documented immediately and reported to the IACUC within 5 days of reaching a location where communication can occur.

- A. The investigator must assure the IACUC that all necessary federal and state permits have been or will be obtained before the research begins. In addition, if the research is being conducted in a foreign country, the investigator must assure the IACUC that all necessary local and international permits have been or will be obtained before the research begins.
- B. **Species Selection:** the investigator should provide information on the population to be studied, rationale for choosing that population, and risk to that population. The IACUC reserves the right to consult with biologists with relevant expertise.
- C. **Site Selection:** The investigator should explain how the study would maximize the opportunity for data collection and minimize disruption caused by the investigator.



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- Consideration should be taken for the best time of year (e.g. temperature, elements) and seasonal behaviors of the species. (e.g. migration, breeding)
- D. ***Methodology Employed:*** The potential short- and long-term effects of procedures on individual animals should be described in all protocols. If animals are to be captured, the method used, species, and the number involved should be detailed in the protocol.
 - E. There should be an explanation on procedures used to avoid contamination of the environment and spread of disease to animals between sites. Examples include disinfecting boots before moving to a new location and changing gloves between handling animals.
 - F. There should be a description of measures taken to prevent injuries and alleviate pain and distress.
 - G. Protocol should describe the possible impact of capture on subsequent behavior and survival of animals.
 - H. Protocols must provide sufficient detail on methods to be used (e.g., trapping, tagging, collaring, blood collections, euthanasia), frequency of observations, and a contingency plan for animals hurt in the collection process.
 - I. When animals are wild-trapped, describe how long the trapped animals will be kept in a contained environment and what will be done to make sure that the animals are not in distress and properly taken care of in terms of food, water, etc.
 - J. If animals are to be monitored individually, the protocol must describe whether they will be identified by natural markings, or they will be artificially marked and describe any trauma associated with the marking.
 - K. The investigator must inform the IACUC whether physiological or behavioral data collected are minimally invasive and, when possible, minimally invasive procedures must be used.
 - L. When individual animals are removed to take measurements or tissue samples, the investigator should describe the procedure and potential problems associated with return of the animal to the field. For example, avoiding predators, seeking shelter, and surviving inclement weather.
 - M. The investigator should describe in the protocol whether individual animals are treated experimentally to alter their behavior or physiology by surgery, drugs, or other manipulations.
 - N. The protocol should describe whether any invasive surgery, such as organ removal or implanting transmitters, is done. If so, these procedures should be done using aseptic technique.
 - O. The investigator should describe the use and choice of anesthesia and justify in some circumstances whether field conditions limit the use of certain anesthesia since some agents are difficult to transport or use in field conditions.
 - P. The investigator must describe and justify procedures involving site manipulation. For example, addition of a predator in well-justified cases. If fences are erected to limit movement of individuals or populations, the impact on other species should be considered.
 - Q. Euthanasia of wildlife in the field can raise unique and challenging issues. The investigator should consult the Report of the AVMA Panel of Euthanasia, which includes considerations and techniques for euthanasia of wildlife. <https://www.avma.org/resources-tools/avma-policies/avma-guidelines-euthanasia-animals>



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5. Resources

- [NOT-OD-24-075: Guidance on Flexibilities for Conducting Semiannual Inspections of Animal Facilities \(nih.gov\)](#)
- [Research With Free-Living Wild Animals in Their Natural Habitat and the Animal Welfare Act \(usda.gov\)](#)
- Animal Behavior Society <http://animalbehaviorsociety.org>
- American Fisheries Society <https://fisheries.org/>American Society for Ichthyologists and Herpetologists www.asih.org
- American Society of Mammologists www.mammalsociety.org
- Ornithological Council www.birdnet.org/

6. Revisions

Edition 001/Review Date: 06/07/2021

Edition 001/Review Date: 09/2021

Edition 002/Review and Revision Date: 7/10/2024 and Effective Date: 9/17/2024 – Revised Document.

- Updated formatting to new template.
- Updated title to “Wildlife and Field Studies – Standard Operating Procedures”
- Section 3.2 – Addition of what is covered under the Certification of Scientific Exchange (COSE)
- Section 4.1 – Addition of clear semiannual inspection requirements for AWA-regulated species and PHS Policy regulated species.
- Section 5 – Addition of the Guidance on Flexibilities for Conducting Semiannual Inspections of Animal Facilities