University of Maryland College Park
Animal Care and Use Standard

Oversight of Field/Wildlife Studies

Purpose: This standard describes protocol requirements and Institutional Animal Care and Use Committee (IACUC) oversight of field studies.

Background: The UMD IACUC is responsible for the oversight of all research, testing and training activities involving live vertebrate animals, including those involving nondomesticated species taking place at field sites (either local or remote) where the activity alters or influences (directly or indirectly) the activities of the animals being studied.

Definitions:

1. Direct manipulation – Activities that involve the handling and/or physical restraint of animals by study personnel, including capture and release, netting, banding, and other activities that require handling of the animal by study personnel.

2. Indirect manipulation – Activities that materially alter or influence the normal behavior activity the animals, without handling and/or physical restraint, such as restricting range or migration patterns (fencing).

3. Observation Only – Activities that do not materially alter or influence the normal behavior of the animal(s) or the habitat, such as animal counts, photographic documentation, attracting via food source, playing audio recording of calls, or other activities that influence the behavior of the animal within the normal range of behaviors for that species.

4. Field site – Location of wildlife study that is outside the UMD physical facilities (laboratory and/or agricultural buildings), typically in an area of agricultural or forest land, or some other undeveloped region.

Standards: For animal use activities involving field studies, protocols must provide sufficient information such that the IACUC can evaluate the location and nature of the field site, impact on study animals, risks to other wildlife or to the surrounding environment, as well as occupational health of personnel involved in the study. Evaluation of activities in field/wildlife settings will be performed using appropriate professional societal guidelines (see below) and occupational health considerations should be, at a minimum, compliant with the UMD occupational health policy on field studies.

Methodology:

1. Protocol Requirements

a. **Exempted Activities**: A full UMD IACUC protocol is not required if the field study activity does not directly or indirectly materially alter or influence the activity of the animals. Requirements of specific funding agencies may supersede this exemption.

1) PIs seeking to have field studies assigned to exempt status must complete the abbreviated field studies form, to be submitted via the online protocol submission system. Field studies assigned

exempt status may be subject to reevaluation by the IACUC for conditions including, but not limited to, changes in federal, state, local, or institutional policy or changes in funding source.

2) Regardless of the requirement for an IACUC protocol, the investigator should be aware that she/he is responsible for the occupational health and safety of all personnel involved in the study, and for the assessment and communication of risks/hazards that may impact human health and safety. (See below, Post-Approval Monitoring and Occupational Health.)

b. **Non-exempted Activities**: A full protocol is required for all studies where the activities or behavior of animal(s) is/are altered or influenced (either directly or indirectly), and must address the specific concerns below, in addition to the non-field study information typically provided in the Animal Study Protocol. An additional section (Section I – Field Studies) should be included in the initial protocol submission. The following items should be considered when developing the field study protocol:

1) *Study Site Selection and Justification.* The study site for the research should maximize the opportunity for data collection and minimize the disruption caused by the investigator. The site selection process should also take into consideration other wildlife and activities in the area, such as agricultural practices, tourism, and hunting, which may interfere with the research protocol.

2) *Study Site Manipulation.* Procedures involving site manipulation should be adequately justified by the investigator. If fences are erected to limit movement of individuals or populations, the impact on other species should be considered. Upon study completion, any erected structures must be removed and original habitat restored.

3) *Study Site Permits.* All necessary permits should be in place prior to the onset of the study, and should be submitted with the protocol. In some cases (international studies), permits are not available until investigators are in-country, the permit application should be included in the protocol, and a copy of the permit submitted as soon as possible upon return.

4) *Study Site Documentation* The PI should submit, as part of the initial protocol submission and for any new sites added via amendments, written descriptions, photographs, or videos that document the nature of the study site, including terrain, typical prevailing conditions, and any physical hazards that may require training or special caution (e.g., a dive site).

5) *Surgical/Anesthetic Procedures* Any invasive surgery, such as organ removal or implanting transmitters, should be done using aseptic protocols specific for the target organism (described in SOPs). Consultation with the AV and consideration of the use and choice of anesthesia should be made, as well as how anesthesia will be affected by field conditions. Anesthetics that do not clear from the system quickly may require holding the animal longer as they may compromise the animal's ability to survive when released. The potential for human consumption of contaminated game species should also be considered.

6) *Impact* The protocol should consider the potential short and long-term effects of capture/procedures on individual animals, as well as potential impacts on other coexisting species. If animals are to be monitored individually, the investigator must indicate whether they will be

identified by natural markings or will be artificially marked, and provide a description of methods to be used and potential trauma (e.g., paint markings may increase visibility to predators).

2. Evaluation Standards - Standards used for the evaluation of field study protocols include, but are not necessarily limited to, the follow professional society guidelines:

- The Wildlife Techniques Manual (Wildlife Society)
- Guidelines for the Use of Fishes in Research http://www.asih.org/sites/default/files/documents/publications/asf-guidelines-use-of-fishes- in-research-2013.pdf (American Fisheries Society, 2013)
- Guidelines for the Use of Live Amphibians and Reptiles in Field Research http://www.asih.org/sites/default/files/documents/resources/guidelinesherpsresearch2004.pdf (Herpetological Animal Care and Use Committee [HACC] of the American Society of Ichthyologists and Herpetologists, 2004)
- Guidelines to the Use of Wild Birds in Research http://naturalhistory.si.edu/BIRDNET/documents/guidlines/Guidelines_August2010.pdf (The Ornithological Council, 2010)
- Guidelines of the American Society of Mammalogists for the use of wild mammals in research http://www.mammalsociety.org/uploads/Sikes%20et%20al%202011.pdf (American Society of Mammalogists, 2011)

3. Post-approval Monitoring and Inspections

a. While semiannual IACUC inspections of field study sites are not required and in many circumstances are impractical, the IACUC should be apprised of the circumstances under which studies are conducted so that they can consider risks to personnel, and impact on study subjects.

b. As described above, the PI should submit, as part of the initial protocol submission and for any new sites added as amendments, written descriptions, photographs, or videos that document the nature of the study site, including terrain, typical prevailing conditions, and any physical hazards that may require training or special caution (e.g., a dive site).

4. Occupational Health and Safety

a. The investigator should be aware that she/he is responsible for the occupational health and safety of all personnel involved in the study, and for the assessment and communication of risks/hazards that may impact human health and safety. Related to work with animals, all personnel must be enrolled in the UMD Occupational Health Animal Handler program.

b. Regarding site specific risks unrelated to animal exposure, the UMD IACUC recommends consultation with the University Health Center Occupational Health, the Department of Environmental Safety, Sustainability and Risk, Global UMD's Director of International Risk Management and other campus resources. PIs should be aware that preparation for site specific risks, unrelated to animal research, may require additional consultations for Travel Medicine, Dive Medicine, etc.