WILDLIFE GENERAL GUIDELINES

This document is a general guideline for Wildlife Field SOP to apply to the researcher’s protocol when applying for an ACC approval for a teaching or field research. Because it is not species-specific, its implementation requires that the researcher and research group personnel be familiar with the accepted practices associated with the species under study.

So, when studying wild vertebrates, researchers need to contact and collaborate with wildlife biologists, ecologists, ethnologists and veterinarians, to identify and take into account crucial elements such as animal welfare assessment, humane interventions, cumulative outcomes and scientific results.

INVESTIGATOR

- **Taxon Selection and Research Goals.**
  Researchers must accurately identify the taxa under investigation and ensure that they are well-suited to address the research and/or teaching objectives. It is crucial to keep the number of individuals collected from the wild to the bare minimum required to achieve the study’s objectives.

- **Asses Taxon Status and Minimize Collection**
  Researchers should evaluate the conservation status of the species being studied and take measures to limit the capture or removal of animals from their natural habitats to the absolute minimum necessary for research or teaching.

- **Compliance with Regulations**
  Researchers must possess a thorough understanding of all relevant regulations concerning the studied animals. They must secure all permits for conducting research. In Canada, this includes adherence to acts such as the Migratory Birds Convention Act, the game export act as well as the provincial Wildlife Acts.

- **Prior Knowledge and Sensitivity**
  Researchers must acquire comprehensive knowledge of the existing scientific literature regarding the species’ response to disturbances, sensitivity to capture, and handling. Special attention should be given to species with dependent offspring such as birds and mammals.

- **Health and Safety**
  Researchers must be well-informed about and prepared to address a wide range of transmissible diseases, parasites and other potential hazards related to wild vertebrates. This will ensure the safety of both researchers and animals involved in the study.
• **Protection of Endangered and Threatened Taxa**
  Members of endangered or threatened taxa should never be removed from their natural habitat, unless they are part of a well-known conservation effort. Import or export of such taxa should strictly adhere to the provisions of the Convention of International Trade in Endangered Species (CITES). The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) can serve as valuable resource for information on threatened taxa.

• **Pain and Distress Minimization**
  No animal, wild or in captivity, should be subjected to unnecessary pain or distress at any stage of research or observation. This includes minimizing discomfort during capture, physical or chemical restraint, maintenance in captivity, euthanasia methods, and during the entire experimental or observational procedure.

• **Baseline Mortality**
  Researchers must include a baseline mortality in their animal use protocols. Researchers should work with the ACC, veterinarian or other personnel to determine the reasonable baselines to better understand the impact of science on animals.

  Therefore, the ACC is responsible for approving these baselines and is encouraged to add one or more questions to the animal use protocol form to solicit reasonable baselines. According to the CCAC, if a baseline is not determined in advance, it would be considered at a 0% baseline. Therefore, should one animal die, it would be considered as a 20% mortality. This will lead to a necessity to inform the CCAC Reportable Animal Welfare Incident and requires direct report to the CCAC.

**PERMITS & PERMISSIONS**

For a wildlife study, the researchers must acquire all permits before experiments may begin.

- Institutional ACC Approval
- Government Permit (Federal or Provincial)
- Band Council Permission
- Veterinary Drug permit
- Canadian Wildlife Service (CWS)
- Scientific Permits
- Species at Risk Permit
- Access to Federal Lands
- Hunting Permit
- CITESTPermit
- Etc.

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STRESS FACTORS INDICATORS

- Weather
- Predators
- Restraint
- Disease
- Trapping and or Marking Techniques
- Time of Day
- Breeding Season
- Offspring Season

IDENTIFIABLE IN PROTOCOL

The Researcher will need to mention the trapping/capture methods, animal welfare assessment scientific endpoints, cumulative endpoints, and human interventions must be identifiable with the protocol’s forms. How will the animal be released?

In studies that use marking techniques, it is the Researcher’s responsibility to ensure that the marking procedures does not adversely affect the behavior, physiology, or survival of individuals.

FIELD SAFETY

Please refer to SOP for Field Safety Form

THREE R’s IN WILDLIFE RESEARCH STUDIES

These three principles guide research at Bishop's University, ensuring that ethical and humane practices are followed in both laboratory and wildlife research.

1. **Replacement:** In recent years, there's been a growing emphasis on replacing animal subjects with non-animal models like cells, tissue culture, and computer-based simulations. This principle is particularly relevant in biomedical research, where it has practical applications. However, it's important to note that in wildlife research at Bishop's University, replacement isn't always an option. This is because the animals studied in wildlife research are the objects of the research rather than the subjects. As such, there is no need for replacement.

2. **Reduction:** The second principal entails obtaining comparable scientific information using fewer animals or maximizing the data derived from a given number of animals. The goal is to minimize the number of animals needed for a research project. Achieving this requires careful statistical planning, and individuals without strong biostatistics training should seek advice from a biostatistician to determine the appropriate sample size. Using too few animals can lead to incomplete or unpublished studies, which can, ironically, increase the overall use of animals in research without gaining valuable insights.
3. **Refinement**: The third principle, refinement, involves using methods that reduce pain and distress in animals and improve their overall well-being. This principle is particularly important in wildlife research at Bishop's University, where the focus is on selecting methods that provide necessary information while minimizing negative impacts. For example, this might involve reducing the handling time of animals or finding alternative approaches to collect genetic samples.