**-- MODEL WILDLIFE PROTOCOL –**

DHHS/NIH/OLAW *ASSURANCE #A-3216-01*

*EFFECTIVE:* 04/05/2022 – 3/31/2026

**Instructions**

1. Answer every question. Do not leave any answer spaces blank. If a question is not applicable, answer the question by explaining briefly why the question is not applicable.

2. If you rely on the scientific literature or on any of the following reference standards to explain or justify an answer, identify the reference:

a) ILAR Guide for the Care and Use of Laboratory Animals

b) American Society of Mammalogists Animal Care and Use Guidelines

c) Ornithological Council Guidelines to the Use of Wild Birds in Research

d) American Society of Ichthyologists and Herpetologists Guidelines to the Use of Fishes in Research; Guidelines to the Use of Amphibians and Reptiles in Research

3. Audiovisual material (e.g., sound files, photographs, maps, and/or video footage) of your field work may help the IACUC to understand your proposed research methods and techniques. If you have created an audiovisual record, please consider submitting it to the IACUC. If you submit such material, include descriptive captions for all photographs; i.e. what action is taking place, how, and why.

*Audiovisual material is submitted in accompaniment to this form:*

YES

NO

**Preliminary questions**

**1. Does your research entail**

**a) the study of live vertebrates as defined by PHS Policy?**

*Animal* - Any live, vertebrate animal used or intended for use in research, research training, experimentation, or biological testing or for related purposes.

A study that entails the eggs and embryos of vertebrates are not covered until those eggs hatch. However, the larval forms of fish and amphibians are covered.

**- OR -**

**b) the study of live animals as defined under the Animal Welfare Act regulations?**

AWA: *Animal* means any live or dead dog, cat, nonhuman primate, guinea pig, hamster, rabbit, or any other warmblooded animal, which is being used, or is intended for use for research, teaching, testing, experimentation, or exhibition purposes, or as a pet. This term excludes birds, rats of the genus *Rattus,* and mice of the genus *Mus,* bred for use in research; horses not used for research purposes; and other farm animals, such as, but not limited to, livestock or poultry used or intended for use as food or fiber, or livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber. With respect to a dog, the term means all dogs, including those used for hunting, security, or breeding purposes.

**If no, stop here.**

**2. If your research is to be conducted in the field**

**(a) will it alter or influence the activity of the animals (PHS Policy)?**

**- OR -**

**(b) does the research involve invasive procedures, or will it harm or materially alter the behavior of an animal under study (AWA regulations)?**

**\*\*Note:** *Any study that includes capture, handling, and marking is subject to initial review.* *If live animals will only be observed in their natural habitat and the study will not involve an invasive procedure, harm to the animal, or materially alter the behavior of the animal,* ***an IACUC protocol is not required****. Please send an email to* [*IACUC@uwyo.edu*](mailto:IACUC@uwyo.edu) *containing the below information.**If live animals will only be used for* ***observational and/or non-invasive******teaching****, please stop and complete the University* [*Teaching Protocol Form*](http://www.uwyo.edu/research/_files/docs/Information_sheet_for_animals_used_in_teaching.doc)*.*

**If the answer to either Question 2(a) or 2(b) is YES, then complete the rest of this form.**

**FOR IACUC USE**

**Protocol #\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Approved for period (one year maximum)

Approved \_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 Copy to PI \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Copy to Animal Care Worker \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Project title** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Funding Information**- **(Please note that this section is mandatory)**

Source of Funding (Government agency, Grant, Departmental Funds, etc.): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

UW Budget ID/Project Grant number (if applicable): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name person(s) and/or unit responsible for animal care:

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Email:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Approximate start date** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Planned completion date** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ongoing project** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Principal investigator** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Postal address** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Permanent phone number** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Field site phone number (if available)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**E-mail address** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*If the PI will not be on site during the entire project, identify the individual or individuals who will be responsible for supervising the on-site work. This person must be able to assume responsibility for decisions and/or actions necessary to ensure animal health and welfare and the health and safety of all field workers.*

**Alternate contact name** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Alternate phone number at field site** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Alternate e-mail address** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**-- Personnel qualifications --**

Federal regulations require appropriate training and experience for all personnel involved in the care and use of animals. An up-to-date "Verification of Training for Animal Work" form must be on file in the Research Office for *each* person, including the P.I., involved in the care and use of animals to be used in this protocol.

Verification of Training for Animal Work form: <http://www.uwyo.edu/Research/forms.htm>

For PI(s) (name): attached \_\_\_ on file \_\_\_ date \_\_\_\_\_\_\_\_\_\_\_\_\_

For animal care worker/lab technician (name): attached \_\_\_ on file \_\_\_ date \_\_\_\_\_\_\_\_\_\_\_\_\_

Graduate student(s) (name): attached \_\_\_ on file \_\_\_ date \_\_\_\_\_\_\_\_\_\_\_\_\_

Others (name): attached \_\_\_ on file \_\_\_ date \_\_\_\_\_\_\_\_\_\_\_\_\_

Please list specific experience and/or qualifications of each animal care worker necessary to perform the specific techniques and procedures described in this protocol (such as surgery) on the following "Verification of Training for Animal Work" form:

**UNIVERSITY OF WYOMING**

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE**

**VERIFICATION OF TRAINING FOR ANIMAL WORK**

THIS SECTION MUST BE COMPLETED BEFORE YOUR PROPOSAL CAN BE APPROVED

COPY, PASTE, AND COMPLETE THIS FORM FOR EACH RESEARCHER AND ASSISTANT

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Position: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Department: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_ Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date employed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Species to be used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Procedures conducted with animals (i.e. types of surgery, routine husbandry, feeding trials, euthanasia, etc.)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Formal training in animal care and management for species indicated: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PLEASE attach copies, if any, of training certificates (CITI, etc.) or other documentation of formal animal care training completed and forward copies of training certificates or documentation completed in the future.**

**I certify that animals under my care will be cared for according to accepted animal husbandry practices, the NIH Guide for Care and Uses of Laboratory Animals, and the Animal Welfare Act. Animals used for research and instruction will be cared for as dictated in the animal care and use protocol approved by the Institutional Animal Care and Use Committee and according to the Program of Veterinary Care on file. ANY PROBLEMS ENCOUNTERED AND QUESTIONS REGARDING THE CARE OF ANIMALS WILL BE IMMEDIATELY REPORTED AND WILL BE RESOLVED IN CONSULTATION WITH THE UNIVERSITY’S ATTENDING VETERINARIAN, Dr. David Evertson @ 745-7341.**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Signature of Employee Date Signature of Supervisor Date

**SECTION I: PROJECT DESCRIPTION, GENERALLY**

**Purpose of study**

a) Describe the specific objectives of your study.

b) Explain how the study will benefit wildlife, humans, or society. Benefits can include basic scientific knowledge; conservation and/or management applications for wildlife; wildlife habitat; wildlife or human health.

c) Justify:

*Rationale for the study of live animals*: why must animals be studied rather than using computer models, habitat studies, etc.?)

*Appropriateness of species to be studied*

* Describe the biological characteristics of the animal species that make them suitable for this particular study. Cost should not be used as a justification, except as a means to choose among species that are equally suitable.
* Please explain how this work will benefit this particular species or other species that share its habitat or, if you are studying this species as a surrogate, how this species will serve as a model for the other species of interest.

*Number of animals to be studied*

* How did you determine the number of animals to be studied?
* When possible, include a statistical power justification of the sample size or yield of tissue per animal.
* For complex studies, providing a flow chart or table showing group size, time frame, study locations, and other information may be helpful in explaining how the total number of animals was determined.

|  |  |  |  |
| --- | --- | --- | --- |
| **animal species**  **(Scientific and Common Name)** | **Number to be studied**  **(Year 1)** | **Number to be studied**  **(Year 2)** | **Number to be studied**  **(Year 3)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| \* **NON-TARGET ANIMALS (Scientific and Common Name)** | **Potential Number Affected**  **(Year 1)** | **Potential Number Affected**  **(Year 2)** | **Potential Number Affected**  **(Year 3)** |
|  |  |  |  |
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*\****NON-TARGET ANIMALS** *include any non-study animals directly or indirectly affected by the research. Examples include the potential to live-capture or kill non-target individuals (e.g., loss of offspring due to taking of one or both parents) or disturb/harass other species during the research activity.*

**Location of study area(s)**

a) Describe the location of your study area(s) as specifically as possible.

b) If it is public land, state the name of the government agency that owns the land. Ascertain if a permit or other form of authorization is required, and if so, note that information in the section on permits, below.

c) If the study will take place on private land, has the landowner’s permission been obtained?

**Permits**: *Identify all required permits or other forms of written authorization including protected species permits at the national and state or provincial levels (in the U.S.: Migratory Bird Treaty Act, Endangered Species Act, CITES, Marine Mammal Protection Act, and Wild Bird Conservation Act; Lacey Act; state permits for state-listed species); national and state/provincial protected areas permits (in the U.S., National Wildlife Refuge System, National Parks, National Forest System, Bureau of Land Management; state permits for wildlife management areas, parks, or other protected areas)*.

|  |  |  |
| --- | --- | --- |
| **Permit type or other form or written authorization** | **Permit number, if any** | **Expiration date (or if application or renewal application pending, date submitted)** |
|  |  |  |
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***If your research requires federal or state permits, it is unlawful to begin work until all permits have been obtained. You may not start the work for which permits are required until the permits are issued, even if your protocol has been approved.***

**Veterinary involvement**

If your research entails a major procedure …

[As defined by the Guide for the Care and Use of Laboratory Animals: “As a general guideline, major survival surgery (e.g., laparotomy, thoracotomy, joint replacement, and limb amputation) penetrates and exposes a body cavity, produces substantial impairment of physical or physiologic functions, or involves extensive tissue dissection or transection (Brown et al. 1993). Minor survival surgery does not expose a body cavity and causes little or no physical impairment; this category includes wound suturing, peripheral vessel cannulation, percutaneous biopsy, routine agricultural animal procedures such as castration, and most procedures routinely done on an “outpatient” basis in veterinary clinical practice.”] or the use of controlled substances, detail the involvement of a veterinarian in the planning of the procedure(s). Will the veterinarian collaborate with you in carrying out the procedure(s)? If so, provide details.

**SECTION II: maintaining wildlife in captivity**

**Temporary animal housing**

Will animals be held in captivity:

a) for more than 12 hours? (Animal Welfare Act)

Yes No

b) for more than 24 hours? (Public Health Service Policy,)

Yes No

c) overnight?

Yes No

If you answered YES to any of the three questions, describe:

* *the planned duration of the captivity;*
* *the temporary holding facilities you intend to use, specifying cage size/type;*
* *equipment that you intend to use;*
* *feeding strategies;*
* *plans for maintaining suitable environmental conditions;*
* *release procedures; and*
* *A photograph, drawing, or illustration of the holding facility may help to clarify your description.*

**Permanent animal housing**

If animals are to be held permanently, please use the University of Wyoming general IACUC protocol.

**Diet supplementation or alteration**

If changing food quantities (supplementation or restriction) or food types (other than routine husbandry food items), describe:

* *diet food items and quantity;*
* *duration of use;*
* *anticipated nutritional deficit/adverse effect;*
* *weight monitoring of animal(s);*
* *amount of weight loss or gain that will be allowed; and*
* *monitoring protocol/schedule for effects.*

**Section III: Procedures other than surgery**

Check Yes or No and add details as applicable. Expected information is explained in italics. Some protocols may require information not specifically listed here. If you are planning activities not listed below, please describe all procedures under the section entitled **“Other.”**

Yes No

**Wildlife Capture (live capture or kill trapping)**

*Describe:*

* *equipment to be used;*
* *planned duration of trapping/restraint;*
* *monitoring protocol/schedule for traps;*
* *potential for trapping non-target species;*
* *disposition of trapped animals;*
* *if anesthesia or immobilization is planned please complete those sections of this form; and*
* *how injuries or conditions resulting from pursuit, capture, or manipulation will be addressed.*

Yes No

**Animal Transportation**

*Describe:*

* *how animals will be transported from a capture location to a field camp or processing site or facility and returned; and*
* *if an animal (live or dead) is to be transported from the field, describe measures to be taken to avoid potential disease transmission to researchers and other animals.*

Yes No

**Physical Restraint Following Capture**

*Describe:*

*method(s) to be used;*

*planned duration of restraint;*

*equipment to be used, including dimensions of equipment if applicable;*

*observation schedule during confinement; and*

*provide detailed justification and protocol if animals are to be physically restrained for longer than 1 hour at a time.*

Yes No

**Decontamination Procedures**

*Describe:*

*where appropriate, the decontamination procedures for equipment that will be used to capture, transport, contain, etc. animals; and*

*frequency of decontamination.*

Yes No

**Monitoring the Health of Captured Animals**

*Describe:*

* *observations planned for monitoring health of captured animals*
* *physiological parameters (e.g., temperature, pulse rate, respiration rate, capillary refill time) to be recorded;*
* *frequency of measurements;*
* *expected normal ranges for all physiological parameters monitored; and*
* *provide a protocol for addressing physiological parameters outside of normal ranges (e.g., how do you plan to treat hypothermia?).*

Yes No

**Marking or Tagging**

*Describe:*

* *marker type and why that particular type is to be used;*
* *mass of the device as a proportion of body mass;*
* *recommended device mass proportionate to body mass;*
* *method and mass of attachment method; and*
* *expected effect, if any, on behavior, health, or social status of an individual.*

Yes No

**Blood Sampling**

*Describe:*

* *needle gauge and length;*
* *collection site preparation;*
* *location of collection sites;*
* *sample volume;*
* *frequency of sampling(s);*
* *total samples per animal;*
* *how long an animal is retained for sampling; and*
* *indicate the percent blood loss per sample based on the animal’s body mass, how fluid volume will be restored, and describe how animal(s) will be monitored for anemia.*

Yes No

**Urine/Feces Sampling**

*If your method requires capture and holding of the animal, indicate the planned duration and method of holding.*

Yes No

**Other Body Fluids and Tissue Sampling**

*Indicate:*

* *the type of substance, e.g. hair, feathers, scales, muscle tissue, abdominal fluid, swabs, bone marrow;*
* *method of collection;*
* *volumes per sample; frequency of sampling(s);*
* *length of time animal is held for sampling; and*
* *total samples per animal.*

Yes No

**Behavioral or observational study (without significant restraint or noxious stimuli)**

*Describe:*

* *procedure including frequency, duration of each observational session;*
* *number of observers;*
* *distance from animals; and*
* *type of equipment to be used.*

Yes No

**Behavioral or observational Study (with significant restraint or noxious stimuli)**

*Describe:*

* *restraint procedure;*
* *equipment;*
* *duration;*
* *frequency;*
* *type of noxious stimulus;*
* *methods used to monitor animals for pain or distress*
* *methods to minimize pain or distress, if any; and*
* *scientific justification for the degree of restraint and/or noxious stimuli.*

Yes No

**Diet supplementation or alteration**

*If food items or quantities other than the animal’s natural diets will be used, describe*

* *diet items and quantities;*
* *purpose for dietary change;*
* *planned duration;*
* *anticipated nutritional deficit/adverse effect;*
* *weight monitoring of animal(s);*
* *amount of weight gain or loss that will be allowed;*
* *monitoring protocol/schedule for effects; and*
* *planned diet for animal’s whose natural diet is live prey. For these cases. How will the adequacy of diets other than live prey be assessed?.*

Yes No

**Food and/or Water Deprivation**

*If food or water will be restricted or withheld, describe:*

* *duration of restriction or deprivation;*
* *frequency of deprivation;*
* *reason(s) for deprivation;*
* *monitoring protocol of animal(s);*
* *amount of weight loss that will be allowed;*
* *anticipated deficit/adverse effect; and*
* *monitoring protocol/schedule for effects.*

Yes No

**Indwelling catheters or implants**

*Describe:*

* *type;*
* *size;*
* *duration of use;*
* *maintenance and monitoring protocol/schedule; and*
* *if implantation requires a surgical protocol please complete the section on Animal Surgery Information.*

Yes No

**Administration of Paralytics** **(other than in the course of surgery)**

*Describe:*

* *agent;*
* *dose (mg/kg);*
* *route of administration;*
* *frequency of administration;*
* *duration of paralysis; and*
* *if used in conjunction with a procedure(s) involving potential pain, how will the presence of pain, depth of anesthesia, degree of analgesia be assessed?*

Yes No

**Administration of Anesthetics** (**other than in the course of surgery**)

*Describe:*

* *agent;*
* *dose (mg/kg);*
* *route of administration (manufacturer & model of equipment);*
* *duration of anesthesia;*
* *method of monitoring anesthesia;*
* *maintenance/monitoring procedures to ensure normal body temperature is maintained in the animal;*
* *procedures to be used in case of anesthetic emergency over-dose;*
* *monitoring protocol to ensure animal’s complete recovery from anesthesia; and*
* *if by inhalation, the method of scavenging waste anesthetic gas/fumes; or*
* *if injectable agent(s) are not commercially prepared and sterility guaranteed please describe method used to assure the agent’s sterility when injected.*

Yes No

**Administration of Analgesics (for other than post-surgical pain relief)**

*Describe:*

* *agent;*
* *dose (in mg/kg);*
* *route of administration; and*
* *frequency, and duration of use.*

Yes No

**Use of Controlled and/or Prescription Substances**

*Irrespective of source, describe:*

* *source of substances;*
* *record keeping;*
* *storage; and*
* *precautions taken to avoid unauthorized access.*

Yes No

**Administration of Drugs, Toxins, Reagents, Cells, etc. (other than analgesics, anesthetics, or paralytics)**

*Describe:*

* *agent;*
* *dose (mg/kg);*
* *diluent;*
* *route of administration;*
* *equipment to be used for administration;*
* *frequency of administration;*
* *length of time animal maintained under influence;*
* *anticipated deficit/adverse effect, if any;*
* *monitoring protocol/schedule for effects;*
* *monitoring procedures to ensure cell lines have been screened for rodent pathogens; and*
* *if injectable agent(s) or silastic implant(s) are not commercially prepared and sterility guaranteed, describe method used to assure the agent’s sterility when injected.*

Yes No

**Survival surgery** (**minor**)

*If YES, complete Animal Surgery Information below.*

Yes No

**SURVIVAL SURGERY** (**major, single)**

*If YES, complete Animal Surgery Information below. A major operative procedure is one that enters a body cavity. For example, implanting a telemetry device into the body cavity constitutes a major operative procedure).*

Yes No

**Survival Surgeries (MAJOR, MULTIPLE)**

*If YES, complete Animal Surgery Information below. You must provide additional justification to perform multiple major operative procedures on one animal. Removal of telemetry devices is an acceptable reason.*

Yes No

**Non-survival surgery**

*If YES, complete Animal Surgery Information below.*

Yes No

**Death as an Endpoint**

* *If the protocol involves observing or studying the animal until death occurs you must provide scientific justification as to why an earlier endpoint is not acceptable.*
* *If collecting the animal by shooting, lethal trapping or other means, describe the method of euthanasia or humane killing to be used.*

Yes No

**Other**

*Describe any other procedure to be administered not previously addressed.*

**SECTION IV: CATEGORY AND ALTERNATIVES to procedures that cause pain or distress**

Please select a proposal category:

B \_\_\_\_\_ Live animals will be bred or held for use in teaching, testing, experiments, research, or

surgery, but not yet used for such purposes. **STOP**🡪 If this is all that is involved, please

complete the University [Breeding Colony Form](http://www.uwyo.edu/research/_files/docs/breeding_colony_approval_form%202014.docx).

C \_\_\_\_\_ Live animals will be involved in teaching, research, experiments, and/or tests, but the

procedures will only involve minimal, momentary, or no pain/distress to the animals and pain relieving drugs will not be used. Live animals will be humanely killed without any treatments, manipulations, etc., but will be used to obtain tissue, cells, sera, etc.

D \_\_\_\_\_ Live animals will be involved in experiments, teaching, research, surgery or tests and

either some or all of the procedures involve more than minimal and/or momentary pain

or distress to the animal and appropriate anesthetics, analgesics, or tranquilizing drugs

will be used.

E \_\_\_\_\_ Live animals will be involved in experiments, teaching, research, surgery or tests and

either some or all of the procedures involve pain or distress to the animal and

anesthetics, analgesics, and/or tranquilizing drugs will not be used because of the adverse

impact on the affected procedures or results.

Yes No

**Category D or E checked?**

*IF YES, please add the following information.*

**Literature search**

The Animal Welfare Act and its implementing regulations, and the Public Health Service Policy ALL require that the principal investigator consider alternatives to procedures that may cause more than a momentary or slight pain or distress to the animal. The term “distress” is not defined under the regulations.

In the ILAR Guide to the Care and Use of Laboratory Animals (2011), the term distress is defined as “…an aversive state in which an animal fails to cope or adjust to various stressors with which it is presented….[although it] …may not induce an immediate and observable pathologic or behavioral alteration …” For the purpose of completing this table, please use this definition.

To satisfy the alternatives requirement, a literature search is required **(a minimum of two databases must be searched)**. The Animal Welfare Act regulations suggest the use of the USDA National Agricultural Library’s Animal Welfare Information Center, which has a compilation of databases [http://awic.nal.usda.gov/literature-searching-and-databases/databases]. However, these dozens of databases include many that are not useful for searching for alternatives and most are useful only for biomedical research. Do not feel constrained to use this particular resource; any relevant source is acceptable. The taxon-specific guidelines, for instance, include hundreds of species-specific references.

* [American Society of Mammalogists Animal Care and Use Guidelines](http://www.mammalogy.org/articles/guidelines-american-society-mammalogists-use-wild-mammals-research-0)
* [Ornithological Council Guidelines to the Use of Wild Birds in Research](http://www.nmnh.si.edu/BIRDNET/guide/index.html)
* [American Fisheries Society, American Institute of Fishery Research Biologists, and American Society of Ichthyologists and Herpetologists Guidelines to the Use of Fishes in Research](http://fisheries.org/docs/policy_useoffishes.pdf)
* [American Society of Ichthyologists and Herpetologists Guidelines to the Use of Amphibians and Reptiles in Research](http://www.asih.org/sites/default/files/documents/Resources/guidelinesherpsresearch2004.pdf)

Please provide the following information

1. A list of the databases (two or more) searched (see below);
2. The terms used to search for alternatives to **each** painful or distressful procedure;
3. Whether any alternatives were found and if so a description of each alternative; **and**
4. If alternatives were found, an explanation of why the alternatives can’t be used in this study.

***Note:*** *The purpose of this search is NOT to explain why the research does not duplicate other work. The purpose of this search is to show that there are no alternative to the potentially painful or distressful procedures outlined in this protocol.*

**SECTION V: TYPE, FREQUENCY, AND TREATMENT OF INJURIES**

Describe the most likely forms of injuries to research animals, how frequent an injury (ies) is (are) expected to occur, and planned procedures to treat injuries. **Even if you do not intend or expect to injure an animal, you must describe potential injuries and expected methods of treatment(s).**

**SECTION VI. What will happen to the animals at the end of the research?**

a) If you plan to release animals, describe the pre-release conditioning, the site and time (date and time of day) of release, and any permits required for such release. NOTE: the release of captive animals that is not a planned part of a manipulative study requires justification. PIs are directed to consult taxon-specific guidelines regarding precautions for the release of captive individuals.

* [American Society of Mammalogists Animal Care and Use Guidelines](http://www.mammalogy.org/articles/guidelines-american-society-mammalogists-use-wild-mammals-research-0)
* [Ornithological Council Guidelines to the Use of Wild Birds in Research](http://www.nmnh.si.edu/BIRDNET/guide/index.html)
* [American Fisheries Society, American Institute of Fishery Research Biologists, and American Society of Ichthyologists and Herpetologists Guidelines to the Use of Fishes in Research](http://fisheries.org/docs/policy_useoffishes.pdf)
* [American Society of Ichthyologists and Herpetologists Guidelines to the Use of Amphibians and Reptiles in Research](http://www.asih.org/sites/default/files/documents/Resources/guidelinesherpsresearch2004.pdf)

b) If you plan to retain the animals for future research, when will you submit a protocol for the next research activity? Briefly describe that planned research activity.

c) If you plan to donate the animals to a zoo, captive-breeding program, or other arrangement entailing continued captivity, please describe the place where the animals to which the animals will be donated. Has this institution or organization agreed to accept the animals?

d) If you plan to euthanize the animals, describe the method of euthanasia to be used in the section on euthanasia, below.

Note: In some instances, the landowner or federal agency (such as the National Park Service) may retain ownership of animals, specimens, or samples. In such cases, consult with the landowner or agency as to disposition.

**SECTION VII: EUTHANASIA and HUMANE KILLING**

The American Veterinary Medical Association published its revised [*Guidelines for the Euthanasia of Animals*](https://www.avma.org/KB/Policies/Documents/euthanasia.pdf) in 2013.

The NIH Office of Laboratory Animal Welfare (OLAW) recognizes the AVMA document as the sole reference standard for euthanasia.

Because OLAW recognizes the AVMA document as the sole reference standard for euthanasia, methods of euthanasia must comply with the AVMA guidelines for all activities funded by the PHS unless the IACUC has approved a deviation. Deviations must be scientifically justified.

If the circumstances of field settings or study requirements preclude the use of methods deemed acceptable by the AVMA for euthanasia, investigators may request approval of alternative methods to humanely end the lives of wild animals. Such a request is consistent with the AVMA guidelines which recognize that ending the life of wild animals in field settings might more appropriately be considered humane killing than euthanasia (AVMA pg. 81). Although the AVMA guidelines expressly do not apply to humane killing, methods considered acceptable therein are also acceptable and preferred for humane killing where possible. Under PHS Policy (section C.1.g), the IACUC has the authority to approve killing techniques not recognized as forms of euthanasia by the AVMA.

***Whether euthanasia or humane killing, it is expected that investigators will use the most humane technique(s) feasible that is also consistent with study objectives.***

Even if you do not intend to end animals’ lives at any point in your project, a method of euthanasia or humane killing must be listed in cases of emergency except in instances where permits or statutes prohibit the killing of individuals of the species involved. If euthanasia or humane killing is prohibited by law or by permit conditions, provide supporting documentation.

Yes No

Does the project involve planned euthanasia?

If yes, which reference guidelines are used?

AVMA (specify revision year) \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Other (Specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Yes No

Does the project involve humane killing?

If yes, which reference guidelines are used?

Describe the planned method of humane killing.

Describe the method used to ensure the animal will not revive and method of disposal of remains. **SECTION VIII: ANIMAL SURGERY INFORMATION**

The term "surgery" is not defined in PHS Policy or the Animal Welfare Act regulations. The latter defines the term "major operative procedure" as any surgical intervention that penetrates and exposes a body cavity or any procedure which produces permanent impairment of physical or physiological functions. There is no definition of minor operative procedure; presumably, it is any procedure that does not penetrate or expose a body cavity or that does not produce permanent impairment of physical or physiological functions.

For the purposes of wildlife research, it is important to recall that the field studies exemption (from protocol review) does not pertain to studies that involve "an invasive procedure, harms, or materially alters the behavior of an animal under study." The term "invasive procedure" is not defined in the Animal Welfare Act regulations. It is not clear if a minor operative procedure is considered invasive. However, OLAW recognizes the authority of the IACUC to determine whether specific manipulations used in research are major operative procedures and, given that neither OLAW nor APHIS has defined invasive procedure, it is reasonable to conclude that both agencies extend the authority to IACUCs to define invasiveness. The IACUC’s determination must be based on a detailed description of the procedure and the anticipated or actual consequences, as characterized by the investigator. If the IACUC, after thorough review, determines that the surgical procedure only penetrates but does not expose a body cavity and that the procedure does not produce substantial impairment, the IACUC may conclude that it is not a major operative procedure. Any laparoscopic surgery that produces substantial impairment of physical or physiological function must be considered a major operative procedure. Whether the laparoscopic procedure is classified as major or minor, the IACUC must ensure that the appropriate analgesia, sterile technique, and perioperative monitoring is employed. FAQ 13: <http://grants.nih.gov/grants/olaw/faqs.htm>

Check here if no surgery is planned.

|  |  |  |  |
| --- | --- | --- | --- |
| **animal species**  **(Scientific and Common Name)** | **Number that will be subjected to surgical procedure** | **S = Survival**  **N = Non-survival** | **Surgery Location (Anatomic)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Pre-operative Procedures and Care**

a) Have obviously unhealthy or compromised animals been exempted from surgery?

Yes  No

If no, explain the rationale for performing surgery on obviously unhealthy or compromised animals.

b) Identify the individual responsible for evaluating pre-operative health status of animals.

c) Provide a brief description of all pre-operative procedures and care.

*Include:*

* *withholding of food and water;*
* *pre-operative antibiotic/therapeutic drug/fluid administration (agent, dose in mg/kg);*
* *route of administration, frequency, duration of treatment; and*
* *preparation of surgical site (e.g., clipping, use of antiseptic scrub/solution, etc.).*

d) Describe the facility or the area where the surgery will be performed:

*Include:*

* *how it is prepared before each surgery;*
* *how surgical instruments are prepared; and*
* *how individuals responsible for surgery prepare themselves.*

**Surgical Procedures**

a) Provide a brief description of all surgical procedures to be performed.

*Include:*

* *incision site;*
* *procedures to be performed;*
* *anticipated duration of procedure; and*
* *method of wound closure including type and size of suture/staples.*

b) Describe procedure(s) employed to ensure aseptic technique is maintained throughout surgical procedure.

*Include:*

* *sterilization method used for instruments, equipment and supplies;*
* *sterilization methods such as the use of sterile gloves, gowns, drapes, mask, cap, sterile implants, and sterile suture/closure material; and*
* *if same surgical instruments are used for multiple animals (i.e. birds), describe how the instruments are managed to assure continued sterility.*

c) Identify all individuals performing surgery and describe their training and experience with regard to surgery involving the study species.

**Anesthesia**

a) Provide a brief description of anesthetic procedures.

*Describe:*

* *agent;*
* *dose (i.e., mg/kg or % if by inhalation);*
* *route of administration;*
* *expected duration of anesthesia;*
* *monitoring procedure to evaluate depth of anesthesia;*
* *maintenance and monitoring procedures to ensure normal body temperature is maintained in the animal;*
* *procedures to be employed in case of anesthetic emergency such as over-dose;*
* *monitoring protocol to ensure animal’s complete recovery from anesthesia; if by inhalation describe the equipment used and state the method of scavenging waste anesthetic gas/fumes; if injectable agent(s) are not commercially prepared and sterility guaranteed, please describe method used to assure the agent’s sterility when injected; and*
* *safety mechanisms to prevent personnel exposure to volatile anesthetics.*

b) Identify the individual(s) performing and monitoring anesthesia. Describe that person’s training and experience with regard to the administration of anesthesia for the study species.

**Post-operative Procedures and Care**

a) Provide a brief description of all post-operative procedures and care.

*Include:*

* *criteria to assess animal pain and the need for analgesics;*
* *type of post-operative analgesics (describe agent, dose, route of administration, frequency, duration of treatment);*
* *techniques used to ensure maintenance of normal body temperature in the animal;*
* *incision care, monitoring and time of suture removal;*
* *catheter or long term care of any chronically instrumented/implanted animals, monitoring and time of removal; and*
* *bandage/dressing monitoring and changing schedule.*

b) If post-operative analgesics will not be used, provide scientific justification.

c) Describe arrangements for post-operative monitoring of animals, the individual(s) responsible for performance of monitoring, including after-hour, weekend and holiday care.

d) Describe the use of any antibiotics or other therapeutic drugs.

*Include:*

* *agent;*
* *dose (i.e. mg/kg, IU/kg);*
* *route of administration; and*
* *frequency, duration of treatment.*

e) If this surgical procedure induces a disease or other functional alteration, describe any anticipated adverse effects and deficiencies, monitoring protocol/schedule for animals, animals’ degree of tolerance to disease/functional deficit.

**Multiple Surgeries**

Will animals be subjected to more than one (1) survival surgery? Yes  No

If yes, provide scientific justification and explain how surgeries are related.

**Section IX: Other considerations**

Yes No

Does the project involve recombinant DNA or the intentional introduction of biohazards into animals?

If yes, has approval from the Institutional Biosafety Committee (IBC) approval

been obtained?

Yes No

Does the project involve ionizing radiation?

If yes, has approval been obtained from the Radiation Safety Committee?

**SECTION X: Literature cited**

Explain why this research does not involve unnecessary duplication of previous research or experiments *Please refer to [Animal Welfare Act 9CFR Section 2.31 (d) (1) (iii)](http://www.nal.usda.gov/awic/legislat/awabrief.htm)*

For assistance with literature searches please see: <http://libguides.uwyo.edu/AWA> (which includes a video from a representative of the USDA) or contact the following University of Wyoming Librarians: Jenny Garcia at: [jgarcia@uwyo.edu](mailto:jgarcia@uwyo.edu) or David Kruger at: [tseliot@uwyo.edu](mailto:tseliot@uwyo.edu) .

1. Please indicate date of search, name of databases, keywords used, and number of responses. **A minimum of two databases must be searched.**
   * *Database 1:*
   * *Database 2:*
   * *Please add additional databases as necessary*
2. Discuss relevant literature to justify why unnecessary duplication of previous research is not involved. The written narrative in this section should include at a minimum the following information:
   * *A list of the databases (two or more) searched (see above);*
   * *The terms used to search;*
   * *Whether any similar research was found and if so a description of that research; and*
   * *If similar research was found, an explanation of why this research is so different or why additional research is needed on the same topic that this research does not unnecessarily duplicate research that has already been done.*

**PRINCIPAL INVESTIGATOR ASSURANCE**

*"I have received a copy of the* [*NIH Guide for the Care and Use of Laboratory Animals*](http://www.nap.edu/readingroom/books/labrats/) *and/or The Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching and will provide for the care, use and treatment of the animals used for the purpose described above accordingly. I will use procedures which will avoid or minimize discomfort, distress and pain to animals used in my research. I have considered alternatives to procedures that may cause more than momentary slight pain or distress to the animals. These studies do not unnecessarily duplicate previous experiments. I HAVE CONSULTED AS NEEDED WITH ATTENDING VETERINARIAN (David Evertson 745-7341), OR BACKUP VETERINARIAN ON STAFF AT ALPINE VETERINARY CLINIC,DURING THE PLANNING OF THIS PROJECT AND WILL CONSULT WITH THE VETERINARIAN DURING THE PROJECT. I will inform the attending Veterinarian immediately if any problems occur, including unanticipated pain or distress, injury, morbidity or mortality. I will submit a revised protocol for IACUC approval if any significant deviation from the approved project procedures occurs. I will submit an annual update for IACUC approval for continuation if this project extends beyond one year. I assure the IACUC that all persons involved in the care and use of animals used to conduct this protocol have received the appropriate training and are qualified to perform the procedures described above."*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Principal Investigator .……………….Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Veterinary Officer ………………… Date

ACTION BY THE ANIMAL CARE AND USE COMMITTEE:

APPROVED DISAPPROVED



**Occupational Health Program Information**

As a researcher named on an animal protocol and to ensure your health and welfare while conducting research at the University of Wyoming, you are being offered the opportunity to participate in the University of Wyoming’s Occupational Health Program. The University has contracted with occupational health specialists of University of Colorado Health Occupational Health to review the health evaluations at a cost of $55.  If you would like to take advantage of this opportunity please complete the ***Baseline Health Questionnaire found at*** <http://www.uwyo.edu/research/compliance/animal-care/> under the “Additional Resources” heading to fill out the baseline health questionnaire and risk assessment.

Once completed, submit to Occupational Health Services, UCHealth by email [OHSNorth@uchealth.org](mailto:OHSNorth@uchealth.org), or Fax: 970-297-6598.

They will then provide you and the Safety Office with a Physician Evaluation Report. The Physician Evaluation Report lets you and the Safety Office know whether there are any medical conditions that may affect you in your current position.  The report does not provide any medical information to UW, just whether follow-up is recommended.  If the report recommends further medical follow-up, you will be referred to a physician at no cost to you.

Should you have questions on this program or process please contact one of the Safety Specialists at either 307-766-3203 or 766-2723.  A common question asked has been whether UW personnel must complete the form with date of birth, social security number, and mother’s first name.  UCHealth Occupational Health must have the date of your birth on the form.  Your social security number and mother’s name helps confirm identity in the medical record, but are optional if UW personnel are uncomfortable supplying this information to them.