***Western Carolina University***

***Institutional Animal Care and Use Committee***

**Animal Use Protocol**

This form is used for studies which involve free-living vertebrate wildlife if studies involve more than unobtrusive observation of animals in their natural habitats. Examples include invasive studies and studies with potential to cause harm or materially alter the behavior of animals.

**The Principal Investigator must be a full-time faculty or staff member.**

Return the completed form and any necessary permits to IACUC@wcu.edu

**PLEASE SINGLE CLICK ON SHADED BOXES TO TYPE**

1. **Administrative Information**

|  |
| --- |
| Project Title: |
| Type of Project: Field Research  Teaching |
| Activity dates (period cannot exceed 3 years): Start date:  End date: |

|  |  |
| --- | --- |
| Principal Investigator: | Work phone:  Lab phone: |
| Title: | Department: |
| Email: | Office location: |

1. **Project Funding, if applicable**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Agency** | **Grant No.** | **Start Date** | **End Date** | **PI** |
|  |  |  |  |  |
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1. **Experience and Training**

List all persons working on this protocol other than PI. All individuals listed must complete CITI training titled, Investigators, Staff and Students: Lab Animal Research.

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| --- | --- | --- | --- | --- |
| **Name** | **Role** (e.g. co-PI, Research Assistant) | **Responsibilities:** List primary activities this person will conduct. | **Completed CITI Training?** | **WCU Role** |
|  |  |  |  | Choose an item. |
|  |  |  |  | Choose an item. |

1. **Study Objectives and Experimental Procedures**
   1. In lay language, briefly summarize (not to exceed 500 words) the specific aims or objectives of the study.

* 1. In scientific language, provide a description of the experimental procedures that will be used to accomplish the specific aims of the study. This description should allow the IACUC to understand the experimental course of an animal from its entry into the experiment to the endpoint of the study.

1. **Animals**

Complete a separate column for each species or rodent strain to be used. If more than 3 species or strains are to be used, duplicate this page and insert appropriately. Please include all information that applies to the animals you propose to use in this proposal.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **A** | **B** | **C** |
| 1. Species (common name) |  |  |  |
| 1. Sex | M  Both  F | M  Both  F | M  Both  F |
| 1. Age range |  |  |  |
| 1. Number of animals/year |  |  |  |

1. Select how the animals will be acquired:

In-house colony, please list:

Commercial breeder, please list:

Wild animals

Privately Owned Animals

Other:

1. Will the animals be held in a housing facility for an extended period of time? **Yes**  **No**
2. If yes, describe the housing and period of time they will be housed, how they will be cared for, and the intent for housing them at this location.

1. If transportation to the facility is required, how will they be transported? Describe caging, vehicles used, provisions for food, water, and access/interaction/sight of other animals during transportation.

1. **Justification for Animal Use**
   1. Describe the number of animals to be used for each experiment in the table below.

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| --- | --- | --- | --- | --- |
| **Experiment or  Procedure** | **Animals/ Group** | **Groups/ Experiment** | **Experiments/ Year** | **Animals/ Year** |
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* 1. You arrived at these numbers by (check all that apply).

The outcome measures or phenomena being measured are variable and large sample sizes are necessary for statistically valid sampling.

Differences from controls are expected to be small, and large sample sizes are necessary to distinguish differences reliably.

The experiments are technically difficult and multiple attempts will be needed to obtain satisfactory data from each experiment.

Other (explain):

* 1. What is the rationale for using animals in this study? Check all that apply.

This research requires behavioral measurements from living animals.

This research requires biological measurements or tissue samples from living animals.

Computer or other models cannot be used to replace animals in this research.

The research cannot be done in vitro.

This research is a direct extension of previous work on this species.

This research seeks to extend previous findings from other species specifically to this species.

Nothing is known about the physiological/behavioral phenomena of interest in this species.

More is known about related aspects of the physiological/behavioral phenomena of interest in this species than any other.

This species represents the best compromise between the simplest (lowest) organism that can be used and the most relevant model system for human physiology/behavior.

This species is the most cost-effective for the proposed research.

Other (explain):

1. **Non-Surgical Procedures**
   1. Will animals be trapped or restrained?  Yes, answer section i-iv below  No
      1. Describe trapping procedures including equipment, bait, frequency of trap checks?
      2. What is the maximum duration animals will be held in traps (must not exceed 12 hours)?
      3. List any expected non-target species and numbers:
      4. Describe the provisions for inclement weather:
   2. Will blood or tissue be collected from animals?  Yes, answer section i-iii below  No
      1. Collection site(s) from animal:
      2. List volume, frequency of collection, and needle size if applicable:
      3. Describe the collection methodology:
   3. Will animals be tagged for future identification in any way?  Yes, answer section i-ii below  No
      1. Type of ID (PIT tag, elastomer, collar, etc):
      2. Describe methodology:
2. **Experimental Stress and Pain**
   1. Indicate the appropriate pain and distress category(ies) and the number of animals in each. Sums should equal the total animals from Part 6 above.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pain and Distress Category   (based on USDA categories)** | |  |  |  |  | | --- | --- | --- | --- | | Number of animals per year | | |  | | Year 1 | Year 2 | Year 3 | TOTALS | | | | |
| Pain and distress category **C** – minimal, transient, or no pain or distress |  |  |  |  |
| Pain and distress category **D** – pain or distress relieved by appropriate measures |  |  |  |  |
| Pain and distress category **E\*** - unrelieved pain or  distress |  |  |  |  |

\*For **category E** animals, a scientific justification is required to explain why the use of anesthetics, analgesics, sedatives or tranquilizers during and/or following painful or distressful procedures is contraindicated.

For **category D and E animals**, the results of a **targeted literature** search **for alternatives to painful and distressful procedures** must be provided below and you will be requested to provide detailed search results.

* + 1. List a minimum of 2 data bases consulted (e.g., PubMed, Agricola, Toxline, Biological Abstracts, etc.).

(1)

(2)

Additional databases:

1. Date of search:
2. Years covered by search:
3. Key words or search strategies used (e.g., analgesics, reduce pain, non-invasive, training):

1. Provide a brief summary of your search results:

* 1. If an animal is injured as result of the study procedures describe your plan for providing veterinary care or humane euthanasia:

1. **Anesthesia and Euthanasia**
   1. Specify in the table below the anesthetic agent for each procedure. Where anesthetic combinations are called for, list each drug separately.

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| --- | --- | --- | --- | --- |
| **Experiment or**  **Procedure** | **Drug** | **Dose** | **Route** | **Expected Duration**  **of Anesthesia** |
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* 1. Volatile (gas) anesthetic agents.
     1. Are you using a volatile anesthetic (e.g. isoflurane)? **Yes**  **No**
     2. If used indoors how will this be vented (e.g., fume hood) or scavenged (e.g. charcoal canister)?

* 1. List who will administer the anesthesia and the qualifications of each person listed.

|  |  |
| --- | --- |
| **Name** | **Qualifications** |
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* 1. If animals **will not** be euthanized, check disposition:

Return to wild

Other:

* 1. If animals **will be** euthanized, select method(s) of euthanasia:

General anesthesia followed by KCl injection – Specify anesthesia in Anesthesia Table (section a)

Overdose of inhalant anesthesia - Specify anesthesia in Anesthesia Table (section a).

Exsanguination under anesthesia - Specify anesthesia in [Anesthesia Table (section a)](http://www.umt.edu/iacuc/docs/forms/Supplemental%20Sections.doc).

Barbiturate overdose IV or IP - Specify agent and dosage in [Anesthesia Table (section a)](http://www.umt.edu/iacuc/docs/forms/Supplemental%20Sections.doc).

Decapitation - If used without prior anesthesia, you must provide scientific justification below\*

Cervical dislocation. If used without prior anesthesia, you must provide scientific justification below\*

Kill traps

Thoracic compression (only small free-ranging birds)

Immersion in tricaine methane sulfonate (MS222), benzocaine HCl, or 2-phenoxyethanol. Specify concentration and any buffers used in Anesthesia Table (section a).

General anesthesia followed by gunshot to head

Other method of euthanasia. Please specify:

\*Provide scientific justification for decapitation or cervical dislocation without anesthesia here:

* 1. Who will be responsible for carrying out the final disposition of the animals?
  2. Where will the final disposition take place?

1. **Use of Drug Enforcement Agency (DEA) Regulated Controlled Substances** 
   1. Will this project involve any DEA regulated controlled Substance? **Yes**  **No**

If you answered **YES**:

1. The PI or other research personnel will have a DEA license (or have applied for a license) BEFORE use of controlled substances under this AUP.   
   Provide name on license and license number or the application confirmation number.

1. The PI will include the proposed use of controlled substances at appropriate doses.
2. The PI will provide appropriate security (anchored cabinet with a minimum of 2 separately keyed doors and limited access to keys or lock combinations) for controlled substances.
3. The PI will be responsible for keeping records of controlled substance use on forms provided by WCU.
   1. Are the controlled substances to be used listed in either the anesthesia, euthanasia, or analgesia sections of this AUP? **Yes**    **No**

**Note:** Please contact the Safety and Risk Management Office if a controlled substance will be used. [safety@wcu.edu](mailto:safety@wcu.edu) or 828-227-7443. You must be individually licensed or have applied for a license with the DEA to use controlled substances at Western Carolina University. By signing this animal use proposal (AUP) you agree to abide by all WCU policies and procedures for use of controlled substances. Unauthorized use of DEA controlled substances may result in suspension of the AUP.

1. **Federal and State Permits**
   1. Are federal, state or international permits required? **Yes**  **No**
   2. Do permits cover all personnel involved in this project and listed on the protocol? **Yes**  **No**

If “NO”, please explain.

* 1. Please attach copies of all permits as an email attachment.
  2. List all permits

|  |  |  |
| --- | --- | --- |
| **Agency** | **Type of Permit** | **Permit Number** |
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1. **Personnel Health and Safety**
   1. When working with animals or animal materials/tissues research personnel will wear the following personal protective equipment (check all that apply):

Gloves  Face Shield

Gown  Fit-tested elastomeric respirator

Goggles/Safety glasses  Rated dust mask. Specify type and fit testing date:

* 1. Research personnel will be exposed to the following hazards in conjunction with animal studies:

Infections Agents/Recombinant DNA. List IBC protocol number:

Loud noises

Hazardous chemicals

Physical strain

Other:

* 1. Describe any other potential hazards personnel may encounter on this project:

1. **Principal Investigator’s Statement**

I certify (check box) that the statements made in this request are accurate and complete and that the animal usage in this proposal does not unnecessarily duplicate previous experiments.

If I receive approval for this project, I agree to inform the IACUC in writing of any emergent problems. I further agree not to proceed with the project until the problems have been resolved.

I will not make significant procedural changes to procedures involving animals without submitting a written amendment to the IACUC and will not undertake such changes until the IACUC has reviewed and approved them.

All photographs and videotapes of research animals and/or personnel will be for documentation of my research and for scientific purposes only.

It is my responsibility to ensure that every person working with animals is appropriately trained. I agree to document this training and provide written documentation upon request to the Safety and Risk Management Office and IACUC.

I agree to complete safety questionnaires and training administered by the Safety and Risk Management Office before starting the project.

I will not begin work on the procedures described in this proposal until I receive notice of approval from the IACUC.

I will keep a copy of this proposal and all subsequent correspondence.

*By submitting this request, the Principal Investigator (and responsible faculty member if the PI is a student) I declare that I have reviewed this report which provides a complete and accurate description of the event and that upon receipt of the IACUC’s review, I will fully and immediately implement any corrective actions required by the IRB.*

*The parties (the IACUC, the Principal Investigator, and responsible faculty member if the PI is a student) have agreed to conduct this application process by electronic means, and this application is signed electronically by the Principal Investigator and by the responsible faculty member if a student is the PI.*

*My name and email address together constitute the symbol and/or process I have adopted with the intent to sign this application, and my name and email address, set out below, thus constitute my electronic signature to this application.*

Date

     

PI Name PI Email Address