Clemson University Policy for Individuals Participating in the Trapping or Handling of Small Mammals in Field Studies

Clemson University Institutional Biohazard Committee, Medical Surveillance Program, Environmental Health and Safety have approved the following Policy on April 24, 2007, and adopted by the Animal Research Committee on May 9, 2007.

Purpose of the Policy: To minimize occupational exposure to zoonotic diseases.

This policy is intended to replace the standard IBC Protocol Application when the field study involves only "catch and release" practices. If biological samples are to be collected, or deviations to this policy are intended, an IBC protocol must be submitted and approved prior to the beginning of the study.

Persons handling small mammals while conducting fieldwork are at increased risk for many zoonotic infections. The following precautions taken to prevent infection with Hantavirus should also be effective in decreasing the infection potential for leptospirosis and lymphocytic choriomeningitis virus (which may be spread by aerosol or direct contact with infectious urine), rat bite fever, and other potential zoonoses. Given the high case-fatality rate (38%) among patients that develop Hantavirus Pulmonary Syndrome (HPS), Hantaviruses in the US are of significant public health importance. Students, faculty, and staff with occupational exposure to wild rodents must enroll in the Medical Surveillance Program (MSP) and, take general and specific Hantavirus specific medical training. These personnel must also be fitted for a respirator and participate in small mammal field anesthesia, handling, and euthanasia techniques training. Documentation of MSP enrollment, respirator fitting and their associated training, as well as species specific training from Research Services must be documented by signing this form and/or completing Appendix II. This is required prior to initiation of studies. Because of the virulent nature of the agents of HPS and because animal-to-human transmission may occur rapidly, persons trapping, handling, or performing necropsies on wild rodents are required to abide by and follow these precautions.

General Duty Clause: SC SECTION 41-15-80. Employers shall furnish safe place; compliance of employers and employees to certain rules.
1. Each employer shall furnish to his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees, and he shall comply with occupational safety and health rules and regulations promulgated under this chapter.
2. Each employee shall comply with occupational safety and health rules, regulations and orders issued pursuant to this chapter which are applicable to his own actions and conduct.

Failure to follow federal law can be met with penalties. For example, death resulting from failure to adhere to these federal requirements regarding respiratory protection could result in fines up to $250K per individual and $500K per institution. These amounts do not include civil penalties that may be awarded in a jury trial.

I have read and understand the Clemson University Policy for Individuals Participating in the Trapping or Handling of Small Mammals in Field Studies. I understand the nature of the hazards associated with the agents under this policy. My signature below indicates that I have read this policy and ensure that all staff involved in the handling or trapping of small mammals has received training. I have had the opportunity to ask questions, and have received adequate answers to these inquiries.

Title of Project: ________________________________

Signature of Principal Investigator: ________________________________

Date: _________
Clemson University Policy for Individuals Participating in the Trapping or Handling of Small Mammals in Field Studies

Clemson University Institutional Biosafety Committee, Medical Surveillance Program, Environmental Health and Safety and Animal Research Committee/IACUC

Purpose of the Policy: To minimize occupational exposure to zoonotic diseases.

These guidelines are based on practices used by Centers for Disease Control (CDC) personnel in areas known to have human cases of Hantavirus infection. The guidelines have been modified for fieldwork in areas of undefined risk. They are intended to give information about the best work practices to provide protection against Hantavirus infection during fieldwork that involves catch and release of small mammals. Although more invasive practices are described, this policy allows capture and release activities associated with biometric data collection (i.e., body weight, body measurements, ear notching, sexing, etc.), without the need for completing Institutional Biosafety Committee (IBC) protocols, Animal Research Committee (ARC) protocols must be completed for catch and release activities. Both IBC and ARC protocols must be submitted and approved before invasive activities (i.e., blood or tissue collection), are performed. Clemson University Environmental Health and Safety (EHS) is available to work with you in adapting the guidelines to your own fieldwork to help you protect yourself. Risk assessment guidelines may be found at Appendix 1. Please contact EHS or the Office of the University Veterinarian if you have comments or suggestions about the guidelines.

The guidelines will be reissued as additional information about fieldwork practices and about the epidemiology of Hantavirus becomes available. In the Southeastern United States, these guidelines apply to handling deer mice, *Peromyscus maniculatus*, as well as, the white-footed mouse (*Peromyscus leucopus*), the cotton rat (*Sigmodon hispidus*), and the rice rat (*Oryzomys palustris*). Other species may be included in the future if they are shown to be sources of human infection with viruses causing Hantavirus Pulmonary Syndrome (HPS). Additionally, the carrier and viral species vary in different geographical regions of the country and world.

I. Background:

Hantaviruses have been implicated as etiologic agents for two acute diseases: hemorrhagic fever with renal syndrome (HFRS) and HPS. HFRS viruses carried by Old World rodents have not been found in the United States and will not be discussed further here. Hantaviruses are also carried by New World rodents. There are at least 27 Hantaviruses carried by American rodents (including about 17 that cause HPS). Hantaviruses are classic "emerging viruses" because of their tendency to appear, sometimes explosively, in new populations in which they are unexpected. A newly identified Hantavirus, the Sin Nombre virus (SNV), was discovered in the summer of 1993 following an investigation of cases of unexplained acute pulmonary illness in the southwestern United States.

Hantavirus pulmonary syndrome is now recognized as a pan-American zoonosis. Rodents are the natural hosts for all known Hantaviruses; however, the rabbit has been implicated in a single case in South America. The primary reservoir of the SNV is the common deer mouse (*Peromyscus maniculatus*), which extends throughout most of the U.S., including the upstate of South Carolina.
Antibodies have also been found in other *Peromyscus* species, pack rats, the chipmunk and other rodents. Three additional rodent reservoirs known to range in South Carolina have been associated with Hantaviruses in other parts of the country. These include the cotton rat (*Sigmodon hispidus*), a reservoir for Black Creek Canal virus that caused an HPS case in Florida, the rice rat (*Oryzomys palustris*), a reservoir for Bayou virus associated with HPS cases in Louisiana and Texas and the white footed mouse (*Peromyscus leucopus*), a reservoir for New York-1 virus. This variant of SNV is found in the eastern third of the United States.

Hantaviruses do not cause apparent illness in their reservoir hosts. However, host animals remain infected for life, carrying the virus in their blood and organs and shedding virus in saliva, feces and urine, contaminating the environment and especially, their nesting material. Human transmission is thought to occur via inhalation of aerosolized virus. Thus, exposure to infected rodents or their secretions in closed, confined spaces may be particularly hazardous. This is especially true if the secretions are aerosolized by activities such as sweeping. Human infection can also occur when the virus is introduced into broken skin, conjunctivae, or mucous membranes, or perhaps when accidentally ingested. Blood or tissue samples from live or recently killed infected rodents should be considered infectious. To date, there has been no documented person-to-person transmission in North America. However, in South America, person-to-person transmission may be a factor in disease spread.

The incubation period for Hantavirus is between 6 days and 5 weeks, with an average of about 2 to 3 weeks. The prodromal phase of HPS is difficult to distinguish from other viral diseases. Symptoms include fever, myalgia, headache, chills, dizziness, non-productive cough, nausea, vomiting, and other gastrointestinal symptoms, and sometimes shortness of breath. Cough and tachypnea usually develop by the seventh day, followed by rapid progression to pulmonary edema and hypoxia.

Between May 1993 and January 2005, 384 cases of HPS were been confirmed in 30 states. Approximately thirty-eight percent (38%) of those reported cases resulted in death. Fortunately, there have been no confirmed cases of human Hantavirus infection in South Carolina. However, because the full scope of hantaviral infection in rodents is not known, and since parts or all of the southeastern United States are within the ranges of four host species associated with Hantaviruses that are known to cause HPS, the CDC recommends that residents of the United States should minimize exposure to rodents and their excreta. The southeastern United States, including North and South Carolina, is considered a potentially affected area.

II. Safe Handling Practices For Research Staff

Undergraduate classes will be accompanied by a well-trained staff member or graduate student when engaged in field work that may lead to exposure to reservoir species. Personnel should be cautioned to remain upwind to decrease the risk of exposure to aerosolized microorganisms. When placing traps, undergraduates should only be allowed to set disinfected traps. When traps are checked for a catch, supervisors must inspect traps to determine that they are free of reservoir species before undergraduates are allowed to proceed. All personnel must receive and have training documented by the Occupational Health Nurse (OHN). Students who are employees may be allowed to handle traps after they have received and documented training outlined in Appendix II, supervisors have mentored.
them, and they have demonstrated appropriate skill and knowledge to handle traps as outlined below. Using pitfall traps which are more likely to capture shrews and voles, rather than a preponderance of reservoir species, is recommended. Traps which did capture reservoir species should be handled by trained personnel, wearing the proper protective equipment and following the proper procedures outlined below. More detailed practical advice regarding adaptations of these procedures for educational purposes may be obtained by reviewing the CDC publication, “Methods for Trapping & Sampling Small Mammals for Virologic Testing (September 1995)”.


- Workers in potentially high-risk settings must receive a thorough orientation about Hantavirus transmission and the symptoms of the disease. They should be given detailed guidance on prevention measures and trained to safely perform the required activities.

- Fundamental hantavirus precautions in rodent trapping and specimen collection include minimizing exposure to rodent excreta, avoiding the creation of aerosols, diligent use of proper personal protective equipment, properly anesthetizing hantavirus reservoir species before handling them, and carefully disinfecting contaminated working spaces, equipment, and clothing. These precautions are also to be followed when work is performed on IBC and ARC protocols that require handling of fresh or frozen tissues or blood taken from potentially infected animals.

- If a bite, scratch, needle-stick, or other injury breaks the skin, stop work and clean the gloved hands with disinfectant. Leave the processing area, remove gloves (discard if disposable or punctured), wash hands and/or other injured areas and clean the site of injury thoroughly with soap and water or waterless hand cleaner. Students should notify the Instructor or supervisor and contact appropriate medical personnel. Employees should contact CompEndium Services (toll-free) at 1-(877)709-2667 to report the incident. Other personnel (Fish and Wildlife, visiting faculty, etc.) should notify medical personnel in accordance with provisions of their employer or host Institution. All personnel should proceed immediately to a medical facility for wound treatment, tetanus/diphtheria booster if needed, and evaluation regarding the need for additional treatment.

- Practice good personal hygiene at all times. Wash hands with soap and water or with a disinfectant wipe before eating, drinking, smoking, or applying lip balm, sunscreen or cosmetics. Avoid hand to face contact.

- Workers who develop febrile or respiratory illness within 45 days of potential exposure should immediately seek medical attention and inform the physician of the occupational risk of Hantavirus infection. Early recognition and proper management can be lifesaving. The clinical syndrome includes the acute onset of fever, muscle aches, headache, chills, dizziness, non-productive cough, nausea, vomiting, and other gastrointestinal symptoms. (Malaise, diarrhea, and lightheadedness are reported by approximately half of all patients). This is immediately followed by respiratory distress and a drop in blood pressure, progressing to severe respiratory failure and shock. Only supportive treatment is available, and the mortality rate is 38%. These symptoms can vary among individuals, so even the presence of fever and muscle aches should trigger immediate medical evaluation. The attending physician should contact local public
health department authorities promptly if hantavirus-associated illness is suspected. A blood sample should be drawn and submitted (at least 1 cc serum) to the SC Bureau of Labs in Columbia, who will split the sample and forward a portion to the CDC. The Virology lab should be called at (803) 896-0820 prior to sending the serum sample so they can prepare for testing. Detailed medical information for physicians regarding supportive treatment for Hantavirus Pulmonary Syndrome is available online at the following website: [http://www.cdc.gov/ncidod/diseases/hanta/hps/noframes/phys/printtechsection.htm](http://www.cdc.gov/ncidod/diseases/hanta/hps/noframes/phys/printtechsection.htm).

- Hantaviruses are lipid-enveloped viruses and are susceptible to most disinfectants, including dilute hypochlorite solutions (household bleach at 1:10 = 0.525%), 70% alcohol, 2% glutaraldehyde detergents, phenolics and most general-purpose household disinfectants. The survival time of the virus in the environment in liquids, aerosols, or dried states is not known. In the field, carry a bottle of alcohol-based waterless hand cleaner or hand wipes for washing gloves and hands.

- Workers must wear gloves when handling rodents or traps contaminated by rodents or whenever the worker has broken skin. A variety of gloves are available including leather, heavy rubber, plastic, nitrile, or latex gloves. The gloves used must be appropriate for the task being performed. Double gloving may be useful. Before removing the gloves, wash gloved hands in a disinfectant and then in soap and water or with waterless hand cleaner. Thoroughly wash hands with soap and water or wipe hands with waterless hand cleaner after removing gloves. If this is not possible, rinse gloves with water or use a disinfectant wipe; wash your hands thoroughly at end of the work period. For further guidance, consult EHS.

- Workers must wear EHS-fitted, NIOSH approved respirators when handling field-caught rodents or contaminated traps or when disturbing rodent burrows and nests. Contact EHS for an evaluation of your work practices and for information about the Respiratory Protection Program (RPP). Until the infectivity of Hantavirus is better understood, respirators must be used to minimize exposure to airborne particles of rodent excreta during procedures that generate aerosols. The proper use of a High Efficiency Particulate Air (HEPA) respirator, such as an N-100, will provide protection against airborne particles of rodent excreta, which is the presumed cause of most Hantavirus infections. However, the incorrect use or care of respirators may increase, rather than decrease, risk of exposure to harmful agents. Additionally, respirators must be used in accordance with the RPP. Inclusion in the University’s RPP (including medical clearance, proper fitting, and instruction on respirator care and use) is required before using any respirator (ref. 29CFR1910.134, OSHA Respiratory Protection Standard). Facial hair must be in conformity so as not to interfere with respirator-to-skin seal. Contact the occupational health nurse at 656-5529 and EHS, 656-7557 for respirator medical clearance and fitting.

- Disinfect all traps contaminated by rodent urine or feces or in which a rodent was captured. If this is not done until the end of the trapping run, wear a respirator whenever handling contaminated traps, and transport empty traps in closed double plastic bags (spray with disinfectant, place in bags). When plastic bags containing contaminated traps are opened, personal protective equipment must be worn. The bag containing the traps should be opened gently to prevent aerosolization of the contents.
- Dispose of dead rodents by burying them in the field or woods where caught. Disinfect the equipment after the burial.

- Workers performing procedures with a high risk of contacting animal body fluids or creating aerosols, such as removing organs or obtaining blood from rodents in an affected area, must contact EHS for detailed safety precautions. IBC and ARC protocols must be approved before activities begin.

- Use appropriate personal protective equipment when entering enclosed spaces or buildings known to be contaminated with rodents or rodent droppings. Contact EHS for assistance.

III. Specific Practices for Field Studies

A. Visual Survey of Area, Walking, Hiking

No special precautions are needed for protection against Hantavirus infection. However, respiratory protection is advisable in a known affected area that is visually contaminated by rodents or has especially dusty conditions.

B. Setting Trap Lines

When setting disinfected traps, no special precautions are needed for protection against Hantavirus. If traps have not been disinfected, respiratory protection and gloves of sufficient thickness to prevent cuts from metal trap edges are recommended if the traps have not been disinfected from prior use. See section C.3 below for clean-up procedures.

C. Recovery and Transport of Traps Holding Live Animals

Wear protective clothing, including, coveralls, eye protection and gloves appropriate for the task (leather, heavy rubber, nitrile or latex). Respiratory protection can be achieved with an N-100-type mask. Proper eye protection in this case may be achieved through the use of a non-vented chemical-splash-type goggle. Alternatively, a full face piece respirator may be worn. Stand up-wind of the trap if possible. Put the trap into double plastic bags (at least 4 mm thick) and large enough to ensure a sufficient supply of air for the animals. If transporting animals in an enclosed vehicle to a processing site, the trapped animals must be isolated from the passenger compartment. Care must be taken to protect animals from dehydration, heat or cold exposure during transportation.

1. Handling Live Animals

   a. Wear protective clothing, including coveralls, gloves, eye protection and respiratory protection. Use appropriate methods to provide protection against both bites and urine contamination of the hands. Leather, heavy rubber, plastic, nitrile, or latex gloves appropriate for the task being performed must be worn.
b. Define a zone to exclude others who are not wearing appropriate protective equipment. Work with the wind coming from your back if possible. Perform all procedures in a manner to minimize the creation of aerosols and dust.

c. Anesthetize potential Hantavirus reservoir species before handling (requires ARC approval). Remove captured animals from the trap by shaking it into an anesthesia bag containing a volatile anesthetic such as halothane/mineral oil mix or isoflurane.

d. Debilitated or injured animals that need to be euthanized should be done so according to the euthanasia procedures identified in the approved Animal Research Protocol (AUP).

2. Field Dissection

a. Field dissection is strongly discouraged and requires IBC and ARC protocols.

b. For detailed description of field dissection techniques, consult the following:

   - CDC publication, “Methods for Trapping & Sampling Small Mammals for Virologic Testing (September 1995)”. This publication can be found at: [http://www.cdc.gov/ncidod/dvrd/spb/mnpages/rodentmanual.htm](http://www.cdc.gov/ncidod/dvrd/spb/mnpages/rodentmanual.htm)
   - “Guidelines for Removing Organs or Obtaining Blood From Rodents Potentially Infected with Hantavirus” [http://www.k-state.edu/research/comply/iacuc/occhs/labguide.html](http://www.k-state.edu/research/comply/iacuc/occhs/labguide.html)

   and contact EHS or the office of the University Veterinarian.

3. Post-Procedure Clean Up:

a. Wear gloves and PPE to disinfect contaminated traps. The ideal method is to submerge the traps in a 5 gallon bucket of disinfectant (5% Lysol) for 10 minutes. Scrub with a long brush. In order to minimize the potential for aerosolization, scrub only the submerged portions of the trap. Rinse twice with water and set in the sun to dry. Alternatively, spray the traps with disinfectant. If traps are not to be disinfected until end of the project, store them in closed plastic bags. Hypochlorite solutions (household bleach at 1:10 = 0.525%). 70% alcohol, detergents, phenolics and most general-purpose household disinfectants may be used. Disinfectant solution and rinsate must be disposed of in a sanitary sewer system. Contact EHS for guidance.

b. Place used instruments into disinfectant for 10 minutes. Decontaminate all waste appropriately before disposal. Decontaminate all work surfaces.

c. Remove protective clothing in a well-ventilated area (such as outside). Put clothing in plastic bags for bio-hazardous waste disposal or laundering. Laundry facilities are
available at the P&A Building. See Appendix 3 for additional information or contact EHS.

d. Clean gloves as previously described and wash hands thoroughly with soap and water.

e. Deliver bio-hazardous waste to GSRC for medical waste pickup.

4. Additional Precautions:

Establish practical and effective protocols for handling emergency situations.

IV. Guidelines for Bringing Wild Rodents into Clemson University Facilities

No wild live reservoirs capable of carrying Hantavirus are allowed in Clemson University facilities unless specifically approved under IBC and ARC protocols.

A. Hantavirus Containment and Disposal

Rodent carcasses or tissues known or suspected to harbor SNV or other HPS producing Hantaviruses should be disposed of by burial in the field and woods.

B. Fixed Tissues

Rodents and/or rodent tissues that are placed in 10% formalin, glutaraldehyde or other appropriate preservative may be returned to Clemson University for study. Fixed specimens must remain in fixative long enough to kill virus before the specimen containers are opened. This generally takes from 1 to 7 days depending on the thickness of the tissue and the fixative used. Specimen containers must be double contained and packaged as described above. Contact EHS or the University Veterinarian for assistance. Tissue collection requires IBC and ARC approved protocols.

V. Occupational Health Program

For individuals with exposure to wild rodents in potentially affected areas, the occupational health program includes the standard components for individuals working with wild mammals and the following additional components:

- Information on Hantavirus infection and Hantavirus Pulmonary Syndrome with detailed guidance on preventive measures, including this document.

- Medical clearance for respirator use, respirator fitting/fit-testing, and training on the proper use of respirators (ref. 29CFR1910.134, OSHA Respiratory Protection Standard). Services are provided by the Occupational Health Nurse (656-5529) and the Industrial Hygienist of the Department of Environmental Health and Safety (656-7557).
Those involved in trapping rodents should be familiar with the contents of the following CDC publications (available online):

- “Guidelines for Working With Rodents Potentially Infected With Hantavirus” http://www.jstor.org/view/00222372/ap050308/05a00060/0

VI. Documentation

The Principal Investigator (PI) of an animal use protocol (ARC) involving the “catch and release” of small mammals in field studies signs the front page of this document and returns it to the Office of Research Compliance. PI retains a copy for his/her file.

All members of the research team identified in a specific AUP receive training and have documentation by the trainee and trainer on the “Acknowledgement Signature Sheet. The original is sent to the Office of Research Compliance and a copy is retained by the PI.

SELECTED REFERENCES

Additional References


Centers for Disease Control and Prevention. Guidelines for removing organs or obtaining blood from rodents potentially infected with Hantavirus. These recommendations are a supplement to Hantavirus Infection-- Southwestern United States (see above).


Copies of these documents are available from the Clemson University Occupational Health Nurse (864) 656-5529 and Research Services (864) 656-1849.

The above recommended bio-safety guidelines are based on information provided by the Centers for Disease Control and Prevention (CDCP),South Carolina Department of Health and Environmental Control (DHEC) and other references as shown. These guidelines represent general measures to minimize the likelihood of human exposure to Hantavirus infection. These recommendations may be supplemented or modified in the future as information becomes available. Any exceptions must be approved by the IBC and concurred by the ARC. Any collection of Biological Samples will REQUIRE the submission of an IBC Protocol. If carcasses are handled in accord with this policy and only returned to campus for disposal, a separate IBC is not needed.
### APPENDIX 1

<table>
<thead>
<tr>
<th>Activity</th>
<th>Risk of exposure</th>
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<tr>
<td>Exposure of non-intact skin to potentially contaminated fluids</td>
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<tr>
<td>Dissection of known infected animals</td>
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<tr>
<td>Activities requiring extensive manipulation** (no anesthesia)*</td>
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<tr>
<td>Contact with used nesting materials/fomites</td>
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<tr>
<td>Transport of wild caught animals (passenger area, contiguous cargo area)*</td>
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<tr>
<td>Dissection of suspect infected animals or those of unknown status</td>
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<tr>
<td>Activities which cause animal to bleed*</td>
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<tr>
<td>Retrieving unanesthetized animal from trap</td>
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<tr>
<td>Handling contaminated sharps</td>
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<td>Activities requiring limited manipulation (no anesthesia)*‡</td>
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<tr>
<td>Transport of wild caught animals (trunk, or isolated cargo area)</td>
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<tr>
<td>Activities requiring extensive manipulation** (anesthetized)*</td>
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<td>Transport of wild caught animals (truck bed)*</td>
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<td>Placing used cages (no decon)</td>
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<td>Placing cleaned cages (previously used and properly decontaminated)</td>
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<tr>
<td>Activities requiring limited manipulation (anesthetized)**‡</td>
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<tr>
<th>Risk of exposure</th>
<th>Very low</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Very high</th>
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</table>

These risks apply to experienced wild animal handlers; inexperienced individuals/students should use the next risk category up when handling wild animals.

*Applies only to wild caught animals whose populations may carry Hanta

** More than simple retrieval from the trap and marking; activities such as weighing or measuring that do not involve blood

‡ "Limited Manipulation" means a simple operation such as leg banding that can be performed quickly
APPENDIX 2

CLEMSON UNIVERSITY POLICY
for INDIVIDUALS PARTICIPATING in the
TRAPPING or HANDLING of SMALL MAMMALS in FIELD STUDIES
“CATCH AND RELEASE ONLY”
ACKNOWLEDGEMENT SIGNATURE SHEET

Name of the Person Trained: ___________________________     AUP Cross-Reference #: ___________________________
Approved until: __________________________

Principal Investigator: __________________________

Project Title: __________________________

I have read and understand the Clemson University Policy for Individuals Participating in the Trapping or Handling of Small Mammals in Field Studies. I understand the nature of the hazard associated with the agents under this protocol. My signatures below indicate that I feel I have received adequate instruction and preparation in each field indicated, have had the opportunity to ask questions, and have received adequate answers to these inquiries.

Signature of Person Trained: ___________________________     Date: __________________________

Methods of Training: Personal Instruction and Demonstration of Skills

1. Medical Surveillance Program

   • Enrollment in MSP
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Immunization as needed: Tetanus/Diphtheria Rabies
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Zoonotic Training
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Hantavirus Training
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Respirator Medical Clearance
     Signature of Instructor
     Signature of Person Trained
     Date Trained

2. Dept of Environmental Health and Safety

   • Respirator Fitting
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Respirator Fit testing
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Training in use, storage, care, and cleaning or respirators
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Facial Hair – All negative-pressure
     respirators are fit-dependent. Anything that interferes with the respirator’s face seal, such as facial hair, will allow ambient air to bypass the filter medium in the respirator, and is therefore unacceptable
     Signature of Instructor
     Signature of Person Trained
     Date Trained

3. Research Services

   • Anesthesia
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Euthanasia
     Signature of Instructor
     Signature of Person Trained
     Date Trained
   • Handling of Animals
     Signature of Instructor
     Signature of Person Trained
     Date Trained

NOTE: Annual retraining and re-fitting of respirator is an OSHA requirement.

Clemson University IBC Policy for Individuals Participating in the Trapping or Handling of Small Mammals in Field Studies
APPENDIX 3

CLEANING OF LABORATORY COATS/APPAREL

A laundry facility for the cleaning of laboratory coats or other laboratory clothing has been established in Room 71 in the basement of the P&AS Building. Some departments have established their own laundry facility. Please check with your departmental office/lab manager to find out if your department has such a facility. Departmental facilities must follow the same general guidelines as those listed below.

Rules established for this laundry facility are as follows:

1. You must obtain a key from Liz Halpin (656-5704) in B220 of the P&AS Building. Key may be obtained after 8:30am and should be returned by 4:15pm. Calling ahead to ensure that facility is not in use is a good idea.
2. The door must be locked (please turn off light, also) when finished, and the key must be returned promptly to B220 when your laundry activity is complete.
3. NO personal clothing may be laundered in this equipment.
4. When transporting lab coats to this building, ensure that they are contained (heavy duty trash bags, etc) in such a way that they do not come in contact with the interior of the vehicle in which they are being transported.
5. Laboratory coats worn in areas where radioactive materials are used must survey "clean" before they can be laundered in this equipment. (Questions about this should be directed to Larry Addis at 656-7165)
6. Lab coats that are known to be contaminated (i.e., by a spill) may need to be treated as hazardous waste depending on the type of contamination (Direct questions to Phil Carroll at 656-1770).
7. You must furnish your own detergent, bleach, etc.
8. You must clean up after yourself; deposit all trash in can provided, etc.
9. Chemically-resistant gloves and apron should be worn by personnel responsible for handling the laundry.
10. Report any problems (mechanical or otherwise) involving this facility to EHS at 656-2583.

*Scheduling a pick-up day for laundering and having someone assigned to pick up and launder laboratory coats for the department is recommended.

**If you do not clean your lab coat/apparel routinely, you increase the risk of personal contamination through accumulation.