Safe Practices to Avoid Zoonotic Disease from Wildlife

Quick Reference Guide

Wildlife Health Branch and Office of Public Health
NATIONAL PARK SERVICE

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Purpose

Working with wildlife can increase your risk of contracting a zoonotic disease, i.e., a disease that can be transmitted between humans and animals. This manual was designed for use by National Park Service resource managers and field staff as a guide to help prevent exposure to zoonotic disease. Please follow these, the guidelines outlined in Occupational Safety and Health Program RM50B 4.15, and training guidelines when working with wildlife. If you have any questions, contact the NPS Wildlife Health Branch, Office of Public Health, or Office of Risk Mangement (contact information found on inside back cover).

Before you begin working with or around wildlife, ask yourself:

- What are the potential **risks or hazards** in my area and/or with the species I'll be working with? What are the symptoms of these diseases in humans and wildlife?
- Because of the risks, what **personal protective equipment** (PPE) will I need before beginning work? Do I have the necessary skills and resources?
  - Outline a plan in a job hazard analysis and discuss with supervisor.
- Do **specific health concerns** exist, such as pregnancy or a compromised immune system? Is there a need for pre-exposure vaccination?
  - Discuss specific health concerns with your physician.
- Do any **red flags exist**? If so, stop all activity and consult the Wildlife Health Branch.
  - Red flags include: multiple dead animals of unknown cause; blood coming from any orifice (nose, mouth, rectum, etc.) without obvious signs of trauma; a pus-filled lesion in the lungs; an animal exhibiting neurologic signs.

Preventing exposure to zoonotic disease:

PREPARE: Use available resources to identify potential zoonotic pathogens.

PLAN: Determine potential routes of transmission.

EXECUTE: Select and implement appropriate safe work practices and PPE.

Contact the NPS Wildlife Health Branch or Office of Public Health for help with specific situations, concerns and updated guidelines, as new diseases may emerge that could change or inform recommendations.

Adapted from NPS Safe Work Practices for Employees Handling Wildlife 4.15 (RM50B 4.15)

1 STANDARD PRECAUTIONS

Always follow these standard precautions when working with wildlife or potentially infectious materials:

Use protective barriers such as gloves and avoid bites, scratches, and physical injury.

Wash hands thoroughly with soap and warm water after removing gloves.

Disinfect soiled equipment and contaminated environmental surfaces or items.

Do not eat, drink, or smoke while handling wildlife.

Work in a well-ventilated area when indoors or upwind of specimens outdoors.

Avoid needlesticks or cuts.

Transport and store samples properly.

Seek medical attention when ill and inform provider of potential disease exposures.

Additional precautions

Some activities and settings require additional precautions, including additional personal protective equipment (PPE). It is extremely important that you have a specific plan of your activities in a job hazard analysis (JHA) to identify these additional risks. It may be helpful to evaluate these additional risks by thinking about routes of exposure; this will help you select appropriate PPE. It is never inappropriate to utilize higher levels of PPE; the following represent **minimum** guidelines for routine scenarios.

Proper Handwashing Procedures:

- Wet your hands with water, then apply soap.
- Scrub for at least 20 seconds; be sure to get the backs of your hands, between your fingers, and under your nails.
- Rinse your hands well with clean water.

2 EXPOSURE ROUTES

Selecting Personal Protective Equipment (PPE) based on routes of exposure

Pathogens from wildlife are transmitted by three major routes of exposure.

Consider each of these routes for your planned activity, and how you can protect yourself in each scenario.

1. Contact

The single **most common source of transmission** is through contact, particularly touching your eyes, nose, or mouth with contaminated hands.

The most **effective tool for protection** is good **hand hygiene**:

1. **Wear gloves** when making contact with an animal, their fluids, or a contaminated environment
2. **Always wash hands** with soap and water after removing gloves, touching potentially contaminated surfaces or tools, and before eating, drinking, smoking, or using a cell phone.
3. **Hand sanitizer**, while not a substitute for soap and water, can be useful in the field when you are unable to wash hands immediately.
4. Contact precautions should be considered for situations where clothing or materials may be contaminated. If you are handling a larger animal, conducting a messy procedure, or working in a particularly contaminated environment, wear **dedicated coveralls** that can be laundered separately or **disposable coveralls** and boot covers.
5. **Evaluate** if the activity could **generate splashes or droplets**. If the answer is 'yes' or 'I don't know', wear **protective goggles** or a **splash guard** to prevent droplets from contacting your eyes, nose, or mouth.

2. Aerosol

While you should always work in a well-ventilated area and work upwind of a potentially contaminated area or carcass, extra precautions against aerosol transmission are needed in a few situations.

Understand the **species** that you are working with, the **geographic range** of the high-risk pathogens, and **environments and activities** that are likely to aerosolize these pathogens.

Situations **requiring respiratory protection** include:

- Conducting a necropsy on or handling a potential plague suspect animal
- Handling live mice that may be infected with hantavirus
- Cleaning a building heavily contaminated with rodent, bat, or bird droppings.

Rarely would an outdoor, small carcass collection require respiratory protection, but if you are conducting other procedures or in any way unsure of the risks present in your situation, consult with the Wildlife Health Branch, Office of Public Health, or Office of Risk Management.

Wearing any **respirator** requires prior **medical clearance**, and half-face or face-fitting respirators require annual fit testing to ensure a proper seal is formed between the respirator and the face. Otherwise, the respirator may not be protective. Ensure filter is appropriate to potential agent of concern and is replaced as needed. Consult with your park safety officer to obtain fit testing.

Dust masks and face-fitting respirators look very similar but differ greatly in their ability to protect you against infectious agents. A respirator will typically have a 'NIOSH' label on the front and two elastic straps (below left) while a dust mask only has one strap and no label (below right).

3. Vector

Vector-borne diseases exist throughout the United States and are a **significant risk** for NPS employees.

Be especially vigilant about fleas, ticks, and vector-borne diseases when working with wildlife or carcasses, as these diseases may be the reason for the death of the animal, placing you at higher risk. Ticks can be active at 43 degrees F.

Strategies to help **protect you** from **vector-borne disease**:

1. Wear an **insect repellent** containing DEET and/or wear permethrin-treated clothing
2. Wear **long pants and sleeves** and tuck pants into socks or wear dedicated or disposable coveralls with elastic wrist and ankle closures
3. Conduct **tick checks** immediately following field work
4. **Shower** within two hours of returning from the field

Using mosquito and tick repellents

Different repellents work against different arthropods, so it is important that you select the appropriate repellent for your task. The following guidelines can help you select the right repellent. All repellents should be washed from skin before sleeping for the night.

Repellent	Ticks*	Mosquitoes	Concentration	Contraindications
DEET (N, N-diethyl-m-toluamide)*	x	x	30%	Do not use on infants under 2 months old. Do not use concentrations over 30% on children.
IR3535 (3-[N-butyl-N-acetyl]-aminopropionic acid)	x	x	20%	
Picaridin (KBR 3023)		x	5-10% for ≤ 2 hours; 20% for longer	
Oil of Lemon Eucalyptus [p-menthane 3, 8-diol (**PMD**)]	x	x	10% for ≤ 2 hours; 30-40 for longer	Do not use on children under 3 years old.
Permethrin	x	x	0.5%	**Do not apply to skin**; intended for use on clothing, shoes, bed nets, etc. only.

* Most products containing IR3535 and oil of lemon eucalyptus are EPA registered for use against ticks; however, the CDC currently recommends DEET and permethrin for protection against ticks. Be sure and read the label of any product you select for guidance on its usage. DEET concentrations above 30% do not significantly increase the level of protection, but do last longer.

3 PPE SCENARIOS

Protective practices for exposure to zoonotic disease pathogens

Always use standard precautions. In addition, use the work practices outlined in the following Tables 1A-D.

Personal Protective Equipment (PPE)

- Clothing appropriate to the nature of the operation
- Eye protection
- Disposable and/or leather gloves
- Coveralls, lab coat, or dedicated clothing
- Respiratory protection as appropriate to the level of disease risk
- Shoe covers or boots, which can be disinfected

Activity Risk

Table 1A. Risk is minimal or limited.

Table 1B. Risk may increase with contact of body fluids or biological samples from animals; risk may differ if the mortality event is recurring vs. unexpected.

Table 1C. Risk increases if a zoonotic disease is known to be present in the area, a species, or vector; because cause of illness may be zoonotic; and due to contact with body fluids and tissues.

Table 1D. Risk is considerable if there is high risk of zoonotic disease or if mouse excreta or large quantities of bird or bat guano are present, particularly indoors.

Table 1A. Risk is minimal or limited.

Activity and Condition	PPE	Safe Work Practice and Route(s) of Exposure
1. Handling apparently healthy live animals. No substantial local zoonotic disease concerns or vectors; risk from casual contact is minimal.		Routes of exposure: contact, vector
2. Handling biological samples from apparently healthy live animals. No substantial local zoonotic disease concerns or vectors.	 If splashes may occur: 	• Contact with body fluids or biological samples may increase risk. Routes of exposure: contact, vector
3. Collection of biological samples (feces, urine) from the environment for management or research where no known zoonotic enzootic disease occurs. Risk exists from contact with body fluids and tissues, but no known disease risk is present.	 If splashes may occur: 	• Store samples in approved, labeled, and dedicated specimen storage location according to protocols. Routes of exposure: contact, vector
4. Handling for disposal or submission of single animal found dead in area with no substantial local zoonotic disease or vectors. Risk is minimal if barrier is used. Risk may increase with size of the animal handled due to increased chance of contamination.	Small animal: Gloves or inverted bag Large animal: 	• Use appropriate precautions for transmission routes of diseases of concern. • Transport outside passenger area of vehicle (i.e., truck bed or trunk). • Bag carcass tightly if it must be placed in passenger compartment or to avoid leakage of body fluids into the environment. • Cover all carcasses. Routes of exposure: contact, vector

Table 1B. Risk may increase with contact of body fluids or biological samples from animals; risk may differ if the mortality event is recurring vs. unexpected.

Activity and Condition	PPE	Safe Work Practice and Route(s) of Exposure
5. Handling multiple animals found dead for disposal or submission in an area without substantial zoonotic disease risk or single animal in an area with substantial zoonotic disease risk. Risk may differ if the mortality event is recurring (e.g., juvenile birds washed ashore) versus unexpected.	Small animal: Gloves or inverted bag Large animal: If aerosols are a concern: 	Follow work practices in #4. In addition: • Inform wildlife biologist and consult with wildlife disease professional for potential causes of illness. • In an unexpected mortality event: Submit 1-5 animals for diagnostic evaluation and dispose of as appropriate. • Store labeled samples in approved locations. • Become familiar with disease symptoms in humans and seek medical attention if symptoms occur (inform health care provider of occupation and potential exposure). Routes of exposure: contact, vector, aerosol
6. Incidental exposure as a result of other indoor or outdoor duties. Briefly handling or contact with live or dead animals, incidental to other work assignments.	Small animal: Gloves or inverted bag Large animal: 	• Communicate with Natural Resources, Risk Management, or Public Health staff as appropriate. • Transport outside passenger area of vehicle (i.e., truck bed or trunk). • Bag carcass tightly if it must be placed in passenger compartment to avoid leakage of body fluids into the environment. • Cover all carcasses. Routes of exposure: contact, vector

Things to remember:

- *Be familiar with diseases found in your area and their symptoms.*
- *Inform natural resources manager of sick or dead animals.*
- *Be familiar with warning signs for unusual mortality events:*
  - *Multiple dead animals*
  - *Blood coming from orifices (nose, rectum) without signs of trauma*
  - *Animals displaying neurologic signs prior to death.*
- *Know how to properly handle, store, and ship specimens.*
- *Ensure you have contact information for everyone who may have had contact with the animal so they can be contacted should a zoonotic disease be identified in the animal.*
- *Learn about the site prior to visiting to become aware of potential risks. This can protect both your and wildlife health.*

Table 1C. Risk increases if a zoonotic disease is known to be present in the area, a species, or vector; because cause of illness may be zoonotic; and due to contact with body fluids and tissues.

Activity and Condition	PPE	Safe Work Practice and Route(s) of Exposure
7. Handling apparently healthy live animals (or samples) from areas with known zoonotic disease risks. Disease exists in (or spills into) handled species or associated vectors (e.g., plague, rabies, brucellosis).	 As appropriate to disease: 	• Use appropriate precautions for transmission routes of diseases of concern. • Become familiar with symptoms of the disease in humans and seek medical attention if symptoms occur (inform health care provider of occupation and potential exposure). Routes of exposure: contact, vector, aerosol

continued ➔

face-fitting respirator

Table 1C. contined

Activity and Condition	PPE	Safe Work Practice and Route(s) of Exposure
8. Handling sick or injured live animals for euthanasia, sampling, or transportation. Risk increases because animal movement may increase contact, illness may be zoonotic and increase sources of contaminants (e.g., diarrhea).	 As appropriate to disease: 	• Use appropriate precautions for transmission routes of diseases of concern. • Submit diagnostic samples (if ill). • Prevent visitors or others from contacting a sick or injured animal. • Collect contact info if exposure has occurred. • If euthanizing with gunshot, avoid head shot if neurologic signs present. Routes of exposure: contact, vector, aerosol
9. Handling healthy appearing animal collected for management/research or found dead with no known zoonotic disease risk for necropsy, dissection, or food processing. Risk is increased due to closer contact with body fluids and tissues, but no reason to suspect high-risk zoonotic pathogens.	 If necropsy, dissection, or food processing: 	• If an animal has received any drugs (anesthetics, euthanasia agent), it is unfit for human consumption and must be removed from the human food chain. Routes of exposure: contact, vector

continued ➔

half-face respirator

Table 1C. contined

Activity and Condition	PPE	Safe Work Practice and Route(s) of Exposure
10. Collection of biological samples (feces, urine) from the environment for management or research where zoonotic disease vectors occur. Risk from contact with body fluids and tissues from potentially infected animals or their parasites.	 As appropriate to disease: 	• Use appropriate precautions for transmission routes of diseases of concern. In addition: • Consult wildlife health professional for potential causes of illness in the animals of concern. • Become familiar with disease symptoms in humans and seek medical attention if symptoms occur (inform health care provider of occupation and potential exposure). • Consult with public health prior to use of samples for display or educational purposes. Routes of exposure: contact, vector, aerosol

powered air purifying respirator

Table 1D. Risk is considerable if there is high risk of zoonotic disease or if mouse excreta or large quantities of bird or bat guano are present, particularly indoors.

Activity and Condition	PPE	Safe Work Practice and Route(s) of Exposure
11. Handling dead animal that was observed ill or a species with known zoonotic disease risk (e.g. ground squirrel) for necropsy or dissection. Risk is increased due to closer contact with body fluids and tissues and unknown cause of death.		• Consult with public health prior to use of carcass or carcass parts for display or educational purposes. • Become familiar with disease symptoms in humans and seek medical attention if symptoms occur (inform health care provider of occupation and potential exposure). • Become familiar with warning signs for unusual mortality events: ∘ Multiple dead animals ∘ Blood coming from orifices (nose, rectum) without signs of trauma ∘ Animals displaying neurologic signs prior to death. Routes of exposure: contact, vector, aerosol
12. Cleaning areas of animal excreta and handling rodents in traps in indoor or field locations with significant accumulation of organic matter. Large quantities of mouse excreta or bird or bat guano are of considerable concern, especially in an indoor setting.		• See: NPS worker protection recommendations for hantavirus. http://www1.nrintra.nps.gov/BRMD/ipm/assets/docs/HantavirusRiskReductionDec2013.pdf Routes of exposure: contact, vector, aerosol

Pre-exposure rabies vaccinations

Pre-exposure rabies vaccination does not eliminate the need for medical evaluation after a rabies exposure; however, it does simplify and reduce the types, amounts, and costs of post-exposure treatment given. Importantly, pre-exposure vaccination may also offer some immunity if postexposure prophylaxis is delayed or an exposure event is unrecognized. Therefore, the Advisory Committee on Immunization Practices recommends that people at frequent risk of rabies exposure be vaccinated and have their titers checked every two years.*

Frequent risk individuals include persons handling rabies vectors on a routine basis, so many park biologists would qualify as frequent risk if they either **handle potential rabies vectors in an area where terrestrial rabies exists** or **handle live bats** as part of their regular job duties. The Office of Public Health, Wildlife Health Branch, and Risk Management Program can assist parks in making specific recommendations based on job titles and can assist in procuring the lowest cost options for pre-exposure vaccination. Vaccinated individuals should have their rabies titers checked every two years.

* Personnel working with rabies virus in a laboratory setting should have titers checked every six months.

4 PPE USE

How to safely put on and take off Personal Protective Equipment (PPE)

Safe donning of Personal Protective Equipment (PPE)

Before you begin an activity:

1. Define **'dirty'** (highest risk), **'clean'** (lowest risk), and **'decontamination'** areas as needed.
2. Assemble all necessary disinfection and disposal materials.
3. Inspect all personal protective equipment to be sure it is in working order.

4. Put on eye protection and respirator if using these items. Ensure a proper seal between respirator and face has formed.

5. Pull on coveralls and inspect for any holes. If coveralls have a hood, pull hood over the straps of the respirator and eye protection.

6. Pull on boot covers or boots, pulling the coverall cuffs OVER the boots or boot covers. Tape coverall cuff/boot cover junction if concerned about biting fleas/ticks.

7. Pull on gloves and pull coverall cuffs OVER the cuffs of the gloves. If using a second layer of gloves, the cuffs of the second layer of gloves can be pulled over the coverall. Tape coverall/glove juncture if concerned about fleas/ticks.

Pull coverall cuff over first layer of gloves.

If using, second layer of gloves should be pulled over coverall sleeve.

Safe doffing of PPE

After completing the activity:

1. Move to decontamination area.
2. Unzip front of coveralls. Pull from shoulders and roll coveralls off of torso and downward toward ankles. Roll coveralls down over outside of boot covers. Remove second layer of gloves with coveralls, leaving first layer of gloves on.

3. Step out of boot covers into clean zone. If you are wearing reusable boots without covers, roll coveralls off of boots, disinfect boots, then step into clean zone. Place coveralls and boot covers in disposal bag.

4. Remove the first soiled glove by gripping the palm of one gloved hand with the fingers of the other gloved hand and pulling glove off. DO NOT slide a gloved thumb under the cuff of a glove the remove.

5. Once the first glove has been removed, keep removed glove in the remaining gloved hand. Slide ungloved thumb under the cuff of the gloved hand and pull down, pulling the glove inside out over the first glove. The first glove should end up in the inverted second glove. Dispose in bag.

6. Wash hands thoroughly with soap and water or hand sanitizer.

7. Remove eye protection and respirator, taking care to use the straps to remove and not touch the exposed front areas of the eye protection and respirator.

Incorrect – do not touch exposed front area of the respirator.

Correct – remove respirator without touching its front.

8. Don a fresh pair of gloves to disinfect any remaining equipment or reusable PPE.
9. Wash hands thoroughly with soap and water once equipment is cleaned and waste has been sealed in a disposal bag.

Disposal

For any collected carcasses or tissues that will not be submitted for diagnostic testing, follow local and state regulations on waste disposal, as these will vary from state to state.

5 DIAGNOSTICS

Sample collection of animal carcasses and tissues

✓ Any mammal with known human contact (i.e., scratched, flew into, or bit a visitor) must be humanely collected and euthanized and sent to the nearest state or county laboratory for rabies testing as soon as possible. Contact the Wildlife Health Branch or Office of Public Health for guidance on this process if needed. **Be sure to collect contact information for the person with whom the contact occurred.**

✓ Determine if the sample(s) are **suitable for submission**

- Carcasses with a very strong odor or maggots may not be suitable for diagnostic testing. Consult with the Wildlife Health Branch prior to submitting questionable carcasses.

✓ Determine if **forensic investigation** is required (e.g., was the animal poached or potentially poisoned) or if additional assistance is needed.

Performing a field necropsy

✓ **PLEASE REMEMBER:** Performing a field necropsy can decrease the diagnostic utility of a specimen and increase the risk of zoonotic disease transmission, so only consider performing a field necropsy if carcass cannot be shipped whole or other park research is needed at the time.

✓ Obtain training in necropsy techniques, work with a trained individual, and/or consult an NPS veterinarian.

✓ Do NOT handle a specimen if blood is coming out of any orifice (eyes, nose, mouth, anus, etc.), unless the source is clearly apparent (e.g., hit by car, shot). Consult an NPS Veterinarian before proceeding.

✓ Choose a safe, well-ventilated location, preferably one that can be cleaned and disinfected after the necropsy. Consult with the park or regional safety manager as needed.

✓ Ensure contact information is available for all individuals present at the necropsy in the event a human health concern is identified that requires medical follow-up.

Collecting carcasses

✓ Wear appropriate PPE, as is outlined in Tables 1A-D.

Additional guidance is available from DOI for collection of avian carcasses when zoonotic avian influenza is present in North America. For avian carcass collection, follow DOI Memo on Employee Health and Safety Guidance for Avian Influenza Surveillance and Control Activities in Wild Bird Populations, 2014, available on the Wildlife Health Branch website.

Two Methods for Collecting Small Carcasses

1. Inverted bag technique.

Invert bag and pull over gloved hand.

Grasp carcass.

Pull bag back over carcass.

Close and seal bag.

Place the first bag in another bag and close and seal that bag.

2. Inverted glove technique.

Grasp carcass and pull glove over it placing carcass inside inverted glove.

Knot inverted glove to seal it.

Place glove in a bag and close and seal it.

Transporting carcasses

✓ If immediate delivery to the diagnostic laboratory is not possible, keep the carcass/tissue cool but do not freeze unless instructed to do so. Keep the carcass away from scavengers or from areas where human exposure may occur.

✓ **Disinfect** hands and equipment.

Large carcasses:

✓ Ensure carcass is properly secured before moving. Be aware of the visibility of moving large carcasses.

Small carcasses:

✓ Place each carcass in a plastic bag and fasten securely. Place bagged carcasses into a second plastic bag and secure, to avoid leakage. Label each carcass with a unique identifier.

Shipping Instructions for animal carcasses and tissues

✓ **Always call first to get permission for submission and to receive any special instructions.**

✓ Complete BRD Veterinary Diagnostic Service Submission Form at: http://www1.nrintra.nps.gov/BRMD/wildlifehealth/surveillance.cfm

Packaging

Appropriate packaging is critical to assure sample quality and to avoid leakage and environmental contamination.

✓ Double or triple bag carcasses, tissues, or primary containers preferably in Ziploc®-type bags.

✓ Contain all liquids in leak proof receptacles with a screw top lid. Reinforce the lid with electrical or adhesive tape.

✓ Ship in a certified crush-resistant insulated shipping box placed inside a sturdy cardboard outer box (e.g. Polyfoam Packers) or a hard sided cooler.

✓ Place enough absorbent material (paper towels, absorbent padding, etc.) inside the secondary packaging (e.g., Ziploc® bag, garbage bag) to absorb the entire wet contents of the primary receptacles were they to be compromised during shipping and handling.

✓ Use enough blue ice packs to keep the samples cold during shipment. Wet ice should only be used in well-sealed containers (e.g., frozen water bottles). Medium to large already frozen carcasses may not need any additional ice packs, as they should remain frozen during overnight delivery in properly insulated containers.

- ✓ Dry ice should be used only for small samples that are already frozen and need to remain frozen. Five pounds of Dry Ice is required for each 24-hour shipping period, and use requires additional labeling, notation on FedEx waybill, and shipper's declaration requirements. Dry ice should only be used in well ventilated areas. Avoid skin and eye contact and always wear protective gloves.
- ✓ Additional cushioning may be added (e.g., shredded paper, air cushion packaging) to reduce content shifting and/or help insulate contents.
- ✓ Place Sample Submission form (and Necropsy Form, if applicable) outside of the Styrofoam shipper/inside cardboard box and submit electronic form at: http://www1.nrintra.nps.gov/BRMD/wildlifehealth/surveillance.cfm

Labeling

Label the outer cooler/box accordingly:

- ✓ Tape the "UN3373 Biological Substance Category B" label(s) to two sides of the box.
- ✓ Ensure that the name, address and phone number of the shipper and consignee are visible on the shipping waybill and the outside of the box.

If dry ice is used:

- ✓ Do **NOT** completely seal the box. Ensure that package allows for ventilation of carbon dioxide gas.
- ✓ Tape the "Class 9" label to two sides of the box.
- ✓ Write the net weight of dry ice in kilograms in the space provided and designate the use of dry ice on the FedEx shipping label: handwritten form or check box under Special Services on the electronic generated form as appropriate.
- ✓ Fill out both shipper's and consignee's name and address on the FedEx shipping label

FedEx waybill/shipping label:

- ✓ If generating FedEx label online, do **NOT** check box for Dangerous Goods under Special Services
- ✓ If handwriting FedEx waybill, check "Yes – Shipper's Declaration not required" and write out the following adjacent to the box:

  UN 3373 Biological substance
  Category B, 1 package

- ✓ Ship Monday-Thursday via Priority Overnight (NOT First Overnight) delivery for shipment to BRD:

  Name of Veterinary Contact/ Phone Number
  NPS Biological Resources Division
  1201 Oakridge Dr., Suite 200
  Fort Collins, CO 80525

- ✓ If specimens are fresh and need to be shipped on Friday, call to see if special arrangements can be made.

Contacts

Wildlife Health Branch

Dr. Danielle Buttke, Public Health Veterinarian, One Health Coordinator
Office: (970) 267-2118
Cell: (970) 631-5084

Dr. Margaret Wild, Chief
Office: (970) 225-3593
Cell: (970) 214-2886

Diagnostic Service Lead
Office: (970) 267-2176

Wildlife Veterinarian
Office: (970) 267-2162

Dr. Jenny Powers, Wildlife Veterinarian
Office: (970) 267-2122
Cell: (970) 214-2933

Office of Public Health

Director
Office: (202) 513-7217
Cell: (202) 253-2289

Epidemiology Branch Chief
Cell: (202) 538-9969

One Health Coordinator
Office: (970) 267-2118
Cell: (970) 631-5084

Office of Risk Management

Occupational Safety and Health Program Manager
Office: 202-513-7214
Cell: (202) 280-9581

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