## **ATTACHMENT 8**

## Instructions for Collection and Shipment of Avian Carcasses for Diagnostic Evaluation

The following are general guidelines for collecting and shipping wildlife carcasses to veterinary diagnostic labs to insure adequate and well preserved specimens. Field biologists should contact the specific laboratory that they will be working with well in advance of any specimen collection and shipping to receive specific instruction for specimen submissions to that lab. Labs should always be notified ahead of time when a shipment is being made to their facility. Once you have determined what equipment and supplies will be needed for specimen shipping, keep adequate numbers of shipping containers, frozen ice packs, shipping labels and packing materials available at all times. If you plan to collect animals while in the field, take along a cooler with ice packs to chill the carcasses.

1. More than one disease may be affecting the population simultaneously. Different species may have varying susceptibility to disease agents. Therefore, collect and ship specimens representative of all species and geographic areas affected.

Obtain good specimens for necropsy. Carcasses that are decomposed or scavenged are unacceptable. If the carcass has an odor, is soft and mushy, has skin discoloration, feathers or skin that easily rubs off, or has maggots present, it is too decomposed for testing.

2. Collect animals under the assumption that an infectious disease or toxic substance is involved and other animals or humans may be at risk. Remember to protect yourself as some of these diseases and toxins are hazardous to humans. Guidelines for personal protection against disease exposure for individuals working with sick or dead wild animals can be obtained from the USGS National Wildlife Health Center, the Centers for Disease Control and Prevention, and OSHA websites.

Always wear latex or nitrile gloves when picking up sick or dead animals. If you are dealing with a significant number of dead animals, or you suspect the presence of a zoonotic disease agent, additional protective equipment including coveralls, eye protection and N95 respiratory protection should be used.

Attach a leg tag to each animal with the following information in pencil/waterproof ink:

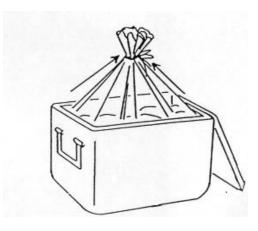
- species
- date collected
- location (state, county, location name, and latitude/longitude if available)
- found dead or euthanized
- collector (name/address/phone)
- additional history or comments on back of tag

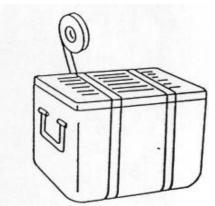
Place each animal in a plastic bag, tie shut, then place inside a second bag and tie shut. This system of double bagging prevents cross-contamination of individual specimens and leaking shipping containers that can contaminate vehicle surfaces and handlers during transportation. Contact the diagnostic lab for guidance in assistance with collecting samples from animals that are too large to ship.

3. Ship animals in a sturdy hard sided plastic cooler. These coolers can be disinfected and returned to you if a pre-paid shipping label or commercial shipping company account number is provided to the diagnostic lab. Be sure to provide a street address for return of the cooler.

Line the shipping cooler with a large plastic bag and pack the individually bagged animal(s) in the cooler with enough blue ice to keep carcasses cold. Disperse blue ice packs among the carcasses so that all carcasses are kept chilled. If you are shipping blood tubes, culture tubes, or other specimen

containers along with the carcasses, these specimens should be placed within a sturdy cardboard or plastic box or screw cap container with padding material to prevent breakage. That container should be place next to blue ice packs within the large cooler. Do not use bagged wet ice for shipments in order to avoid fluid leakage during shipment. Do not use dry ice unless instructed to do so by the diagnostic lab. Place crumpled newspaper or similar absorbent material in the cooler with the bagged carcasses to fill unused space, hold the ice in contact with carcasses, provide insulation, and absorb any liquids. Tape the cooler shut with sturdy strapping tape.





Place a detailed history of the animal and circumstances associated with the mortality event in a paper envelope or a plastic sleeve and tape it to the outside of the cooler. A copy of this history should be faxed or e-mailed to the diagnostic lab at the time of shipment. A standard wildlife specimen history form can be found on the last page of these instructions.

4. Prior to shipping contact the diagnostic lab to inform them of the type and number of specimens being shipped. Ship specimens for next day delivery (overnight service) from Monday through Wednesday to guarantee arrival at the diagnostic lab before the weekend. If specimens are fresh and need to be shipped on Thursday or Friday contact the diagnostic lab to make special arrangements for receipt of specimens.

Freezing and thawing can make isolation of some pathogens difficult and damage tissues needed for microscopic examination. Diagnostic labs prefer unfrozen specimens if

- they can be sent within 24 48 hours of collection or death. The diagnostic lab can provide guidance on when or if to freeze samples on a case-by-case basis. If you are in the field and cannot call or ship within 24-48 hours, freeze the animal(s).
- 5. Prior to shipping contact the commercial shipping company to obtain guidelines for shipping diagnostic or biological specimens. Label coolers with clear, legible labels including the diagnostic lab name, street address, and telephone number. In addition to the mailing address, attach a label reading "DIAGNOSTIC SPECIMENS –WILDLIFE" to the side of the cooler. If dry ice was used in the shipment a standard dry ice warning label will be required. These can be obtained from the shipping company. Please make note of the tracking number in case packages are delayed.

## Wildlife Specimen History Form Always contact the diagnostic lab before shipping specimens!

Submitter's name:	Affiliation:		
Address:	Telephone:	E-mail:	
Date collected:	Collector's Name:		
Method of collection: [found dead, euthanized (describe method) etc.]			
Method of storage: [chilled, frozen, fixed,	, etc.]		
Species Submitted:			
Specific die-off location: State: County:	La	titude/longitude:	
Environmental factors: (Record conditions such as storms, precipitation, temperature changes, or other changes that may contribute to stress.)			
Disease onset: (The best estimate of when the outbreak started.)			
Species affected: (The diversity of species affected may provide clues to the disease involved.)			
Age/sex: (Any selective mortality related to age and sex.)			
Morbidity/mortality: (Ratio of sick animals to dead animals.)			
Known dead: (Actual carcass count)			
Estimated dead: (Consider removal by scavengers or other means.)			
Clinical signs: (Any unusual behavior and physical appearance.)			
Population at risk: (Number of animals in	the area that could be exp	osed to the disease.)	
Population movement: (Recent changes in the number of animals on the area and their source or destination, if known.)			
Problem area description: (Land use, habitat types, and other distinctive features.)			
Comments: (Additional information/observations that may be of value such as past occurrences of disease in area.)			

## PLEASE USE ADDITIONAL SHEETS IF NECESSARY.