

## **APPENDIX I: Handling of Live Common Loons and Specimens**

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The Montana Common Loon Working Group represents professional wildlife biologists and others interested in Montana's loons. We are concerned with a) the welfare of individual loons, b) the persistence and strengthening of the state's breeding population of loons, and c) the health and diversity of Montana's aquatic ecosystems. As such, members are routinely tasked with rescuing injured loons, banding loons, recovering loon carcasses, as well as collecting various biological samples. This appendix is provided as a guideline those procedures.

### **CAPTURING AND HANDLING COMMON LOONS**

The purpose of capturing common loons is to investigate various aspects of loon ecology including survival, behaviors, reproduction, response to bioaccumulants, and in some cases to rescue birds. Capture methods for breeding common loons and their chicks are explained in detail in Evers (1992). **Note: All attempts to capture and handle common loons, whether to rescue or to band, must be done with or by qualified state, federal, or tribal biologists or similarly qualified loon researchers. If none of these people are available to assist in the capture and handling operations, make direct contact with them, follow their advice and recommendations, and proceed in a safe manner.** Every loon that is handled, if healthy enough, should be banded so it can be monitored over time. It is very important to coordinate with Montana Fish, Wildlife and Parks on acceptable band combinations prior to placing bands on a bird to avoid duplication. Coordination is also necessary to ensure the bird receives an aluminum USFWS band and it is placed on the correct leg based on the age of the bird. Other samples including secondary feathers, tail feathers, and blood may be taken and submitted to the Biodiversity Research Institute. Properly trained Area Coordinators ([Appendix A](#)) will have more detailed protocol.

### **Rescuing trapped and injured common loons**

The Montana Common Loon Working Group recommends that rescue of common loons should be attempted in some cases. Rescue may be appropriate when a loon is injured or when it is unable to escape from a situation such as a wet highway or a freezing water body. Rescues should not be limited to human-caused problems. However, we generally would not rescue a loon that was injured while another wild species attempted to prey on it or one that was injured in a dispute with another loon.

The safety of people attempting the rescue must be a paramount consideration. A loon in hand can cause serious injury, especially if its bill makes contact with your eye. Rescues on rough water or thin ice should not be attempted, nor those involving inclement weather or unsafe watercraft.

Veterinary assistance should be obtained any time the rescue would involve a) causing additional injury such as surgical removal of a fishing lure, or b) removal of the loon to a facility for rehabilitation.

A loon that requires handling or transport should be kept restrained with its eyes covered to prevent it from hurting itself or its rescuers. The loon should not be allowed to rest on its keel for long periods of time. Use a rolled towel or other pressure-relieving technique. Watch for signs of heat stress and, if needed, cool the loon by setting it on a bag of crushed or cubed ice that is covered with towel or fabric. If the air is very cold, keep the loon warm inside a heated vehicle or by body contact with someone holding the loon.

If rehabilitation is needed, place the loon in the care of a wildlife rescue facility recognized or registered by the government authority for wildlife care and rehabilitation. As soon as the loon recovers sufficiently, return it to the water body where it was found or to the closest appropriate location. During loon breeding season, do not release a loon into the territory of a territorial pair that could re-injure the loon. In fall or winter, do not place a loon that cannot fly in a lake that may freeze over.

Consider the loon's welfare and the potential for its successful and long-term rehabilitation. If the loon is suffering significant pain or distress that cannot be relieved, it should be humanely euthanized. Seek the opinion of a qualified veterinarian.

## COLLECTION OF BIOLOGICAL SPECIMENS

### Eggs and Egg Shells

Whole eggs are collected and analyzed for chick development and mercury analysis, while egg shell fragments are collected and stored for future analyses. Egg shells are collected only after the chicks hatch and the loon family has left the nest area. Collect as many shell fragments and as much membrane material as possible. Be sure to examine the area surrounding the nest bowl as loons will move fragments into the water. Place the sample into a clean ziploc bag. Label the bag (either with a card placed inside the bag or with a permanent marker) with the following information: species (i.e. COLO), contents (egg shells), lake/territory (include coordinates), state, date, collector's name, and any additional important information.

Whole eggs are collected from a nest only if you are absolutely positive the breeding pair is no longer incubating. **Do not remove viable eggs from active nests (yes, it has happened).** The easiest way to avoid this is to have an accurate hatch date and monitor the nest regularly. If the eggs do not hatch on the estimated date, allow an addition three to five days and then reassess the situation. We have waited as long as 25 days past the estimated hatch date in some cases due to prolonged incubation. Other situations may warrant collection sooner, such as flooded nests and abandoned nests. In other situations, whole eggs are collected after a chick hatches and an egg remains on the nest. Always use discretion prior to removing eggs from a nest. Wrap eggs in padding (paper towels work well) and place in a clean ziploc bag. Label the bag with the same information listed above. Place the sample in a freezer as soon as possible. It will begin to smell very bad, if it does not already.

Transfer whole eggs and eggshells to the CLWG co-chairs at the July meeting. The co-chairs will submit the samples to the Biodiversity Research Institute (BRI) for analysis. The co-chairs are also responsible for following up with BRI to obtain results.

## Carcass Collection

The Common Loon Working Group collects common loon carcasses for necropsies whenever possible. Necropsies provide valuable information on cause specific mortality. If possible take pictures of the bird before collection (see below). Prior to freezing (if possible) record the following information: date, species, age (adult, subadult, juvenile, or chick), contents (carcass), recovery location (include city/state or location/state), coordinates (UTM or Lat/Long with datum/WGS 84 is the default datum on most GPS units), collector's name, the band combination including the USFWS band number, if it was banded, suspected cause of death, and any additional important information. Place the form in a ziploc bag and place it with the carcass in a garbage bag. Then place that garbage bag into another garbage bag and seal it. Apply a collection tag or label to the bagged carcass. At this point you should freeze and preserve the specimen. Contact the nearest area coordinator ([Appendix A](#)) to arrange the delivery of the carcass. Area coordinators should contact a nongame biologist with Montana Fish, Wildlife and Parks and have the carcass shipped to the Fish, Wildlife and Parks Laboratory in Bozeman, Montana for the necropsy. In addition area coordinators ([Appendix A](#)) mail or email a copy of the collection form to the biologist in charge of the mortality data.



### Example:

**Date:** 13 October 2004  
**Species:** Common Loon  
**Age:** Juvenile  
**Contents:** Carcass  
**Recovery Location:** Long Beach Peninsula, WA  
**Coordinates:** 46.633, -124.05/Datum WGS 84  
**Collector:** Jim Conner, PhD  
**Bands:** LL White Dot/Silver, RL Blue/Yellow Dot, USFWS #938-446-76\*  
**Cause of Death:** Unknown\*\*  
**Addition information:** The bird was washed up on shore. It appeared very thin.

\* The silver band is missing in the photo.

\*\* A necropsy later revealed this bird may have died of Type C Botulism.