



Lake Michigan Volunteer AMBLE

Avian Monitoring for Botulism Lakeshore Events

**Information for Volunteers,
Beach Monitoring Protocol, &
Carcass Collecting Protocol**

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Section 1:

Lake Michigan Volunteer AMBLE – Avian Monitoring for Botulism Lakeshore Events

1a. Background

Avian botulism is a paralytic disease caused by the ingestion of a toxin produced by bacteria whose scientific name is *Clostridium botulinum*. These bacteria are natural and prevalent in the environment but are often in a dormant state called a spore; the bacteria are essentially hibernating. However, under certain environmental conditions, the spores come out of dormancy and their metabolism is activated. At this point, the bacteria produces toxin. There are 7 types of botulinum toxin referred to as types A through G. Type C toxin affects waterfowl in smaller lakes and marshes. It is type E toxin that we are currently finding in the Great Lakes. Type E toxin very rarely affects humans; types A and B toxins are sometimes present in improperly prepared or stored food and can cause food poisoning in humans.

The conditions necessary to induce vegetative growth and type E toxin production by bacteria in the Great Lakes are not fully understood but probably include higher temperatures, anoxic conditions (no oxygen), and external protein sources. While the toxin degrades in open water, invertebrates can take in the toxin and harbor it in their bodies. Therefore, fish or birds sometimes eat toxin-laden insects, mussels, or other invertebrates and become sick. Furthermore, intoxicated fish might act strangely, thus attracting the attention of fish-eating birds that often prey on more vulnerable food items. Avian botulism may perpetuate on beaches because bird carcasses on the beach become infested with maggots, which can act as carriers of the toxin and cause sickness in birds that eat these maggots. Because it is a neurotoxin, signs of botulism in birds include loss of muscle control, namely in the legs, wings, and neck. The toxin is fast-acting so it is not uncommon to see healthy, sick, and dead birds in the same area during a botulism mortality event.

Botulism type E was first documented in Lake Michigan in 1963 and there were die-offs of fish and birds in the 60s, mid-70s, and early 80s. Die-offs on the Great Lakes have been happening annually since the late 1990s. The pathways involved in transporting the toxin through the ecosystem are not fully understood. These are big lakes! The help of volunteer beach monitors will lead to better understanding of avian botulism trends.

Lake Michigan Volunteer AMBLE grew from the need to increase and coordinate surveillance along the Lake Michigan shoreline for sick or dead birds suspected to have avian botulism. Scientists trying to understand the dynamics of avian botulism on Lake Michigan are in need of more data on numbers and species of birds affected to unravel the pathways of the botulinum toxin, with the long-term aim to determine how to mitigate the effects of the toxin and protect wildlife. At the same time, many local citizens are passionate about the Lake Michigan ecosystem and are often aware of dead birds and poor beach conditions in their area. AMBLE was created to help facilitate the partnership of concerned citizens and wildlife disease experts by providing a way for citizens to gather and submit data and by communicating data summaries and scientific findings back to the volunteers. AMBLE is modeled after, and integrated with, the successful volunteer monitoring program run by the National Park Service at Sleeping Bear Dunes National Lakeshore in Michigan. The AMBLE focus area for 2011 was Door County, Wisconsin. In 2012, the AMBLE network expanded to include the southern and western shores of Green Bay.

1b. Program goals

The goal of AMBLE is to empower a network of concerned citizens to monitor bird health and beach conditions along miles of Lake Michigan shoreline, thus increasing knowledge of avian botulism trends.

More specifically, AMBLE aims to:

- Sustainably and efficiently monitor Lake Michigan shoreline via a volunteer network
- Determine how many and what species of live, sick, and dead birds are present along the shores
- Compare avian monitoring findings from different locations around Lake Michigan
- Facilitate the submission of bird carcasses to the USGS National Wildlife Health Center for botulism testing
- Decrease the spread of avian botulism by detecting an outbreak early and burying carcasses
- Engage citizens in environmental issues on the Great Lakes
- Encourage connection with nature and give individuals, friends, and families an excuse to be outside!

1c. Contact information

Jenny Chipault
AMBLE Coordinator
USGS National Wildlife Health Center
6006 Schroeder Rd
Madison, WI 53711

AMBLE@usgs.gov

608-270-2473

www.nwhc.usgs.gov/AMBLE/

Note: Email will probably arrive in your inbox looking like: GS-B-NWHC AMBLE. The acronyms at the beginning of this email address stand for Geological Survey, Biology, and National Wildlife Health Center.

1d. Partners

We thank our partners for their help in establishing and expanding the AMBLE program!



Oconto's Promise

Section 2: Becoming a Beach Monitor and/or Carcass Collector

Thank you for your interest in the AMBLE program! The amount of shoreline covered, and what we will learn about avian botulism, is increased due to your participation. We hope you find this to be a rewarding experience. Please let us know if you have any comments or suggestions.

The following documents that enable AMBLE-ing can be found on the AMBLE website (www.nwhc.usgs.gov/AMBLE/) and/or will be handed out at AMBLE training sessions.

- 2a. Position description** – describes qualifications and benefits of being an AMBLE volunteer.
- 2b. Choosing a beach** – you get to designate your own stretch of beach to monitor by providing information asked for on the Beach Description Form. Beaches must be at least a quarter mile long.
- 2c. Volunteer contract** – at AMBLE training sessions, USGS volunteers will be required to fill out a “Volunteer Services Agreement for Natural Resources Agencies” form to enroll in the AMBLE program.
- 2d. Equipment loan form** – this form assigns monitoring equipment such as GPS units, clipboards, bird ID books, etc. to volunteers for a season. This form will be provided at training, at the time the equipment is given to you.

**Section 3:
Protocol – Beach Monitoring**

3a. Equipment

Needed:	Optional:
Data sheet	Great Lakes Birds pamphlet
Pencil (and sharpener or backup)	Peterson's Field Guide to Birds
Clipboard	Beached Bird Guide & Guide to Aging Loons
Binoculars	Birds and Fish of Lake Michigan's Shore
GPS	Camera (or other picture-taking device)
Extra batteries	Needle-nose pliers
AMBLE business cards	Garbage bag for trash
Disposable gloves	Protocols
Shovel and/or non-toxic spray paint	Sunscreen, sunglasses, sunhat
Carcass bags	USGS Volunteer hat or t-shirt
Carcass tags	Sled
Tape, twist ties, and/or zip ties	
Water	
Hand sanitizer	
Copy of USFWS Permit & cover letter	

3b. Beach monitoring

Walk your section of beach, as defined by your Beach Description Form, from one end to the other every 7-10 days. Walk slowly enough to look for carcasses that might be hidden in vegetation or beach debris. On most beaches, this will mean zigzagging your way along the beach. Scan the air, water, and beach ahead with your binoculars as you go to find live birds.

Only count birds that are observed within your segment of beach as you imagine two parallel lines stretching out from the start and end points of your beach segment (Figure 1). If you see birds outside of this area that you want to record, put them in the "Notes" section of the data sheet. The goal is to have the length of water monitored correspond with the length of beach. For example, if your segment of beach is $\frac{3}{4}$ of a mile long, then you should also be surveying a $\frac{3}{4}$ mile stretch of water and air. This keeps our birds observed per mile numbers more accurate.

We are mostly interested in waterbirds, nearshore birds, and birds of prey (see "Great Lakes Birds: An Introduction to Familiar Species" for examples of birds in each category). If you would like to record live perching birds, feel free, but it is not required. If you observe sick or dead animals of any kind (perching birds, mammals, fish), please record those. Please do not guess the species of bird; use "unknown duck" or "unknown gull" or even "unknown bird" if you are unable to identify the bird with the resources at hand. See Patuxent Bird Identification InfoCenter for more help with bird identification: www.mbr-pwrc.usgs.gov/

Please don't record live birds observed on your way BACK to your car or home; only record live birds on the first pass of your beach. It is hard to avoid re-counting live birds that fly around as you AMBLE and only counting live birds once reduces the probability of re-counts. However, if you see a carcass on the way back to your home or car that you did NOT see as you walked out, please add it to your data sheet and follow instructions in Section 3c.

Monitor from June to November. Miserable cold or snow might hit in October; feel free to stop monitoring at that point. However, we do tend to see higher bird mortality in late summer into fall so the longer we can keep monitoring, the more complete our dataset will be.

Please try to walk the whole section of beach in one session. If you absolutely cannot complete your entire designated section of beach due to the onset of inclement weather or other emergency, please note where you stopped by recording a GPS point at your end location for that day in the "Notes" section of the data sheet. If you are able to AMBLE the entire section of beach within a couple of days of the partial coverage, you need only submit data for the complete AMBLE. If you know ahead of time that you will not be able to cover your beach during a certain week, please try to find a trained substitute. Also, the AMBLE coordinator can contact other volunteers to try to find a substitute if your beach is not privately owned.

Taking time to answer questions from intrigued members of the public interested in what you are doing can help educate your community and encourage the involvement of more volunteer beach monitors. If you don't have time to chat please feel free to give them a business card so that they can go to the AMBLE website for more information. Wearing your USGS volunteer hat or t-shirt while monitoring is encouraged.

AMBLE-ing with your dog(s) is fine, but keep dogs away from carcasses as dead wildlife can contain harmful bacteria and toxins. Also, please record that you brought your dog(s) in the "Notes" section of the data sheet as this may affect the number of live birds observed.

You may also want to consider bringing a garbage bag and picking up trash as you AMBLE.

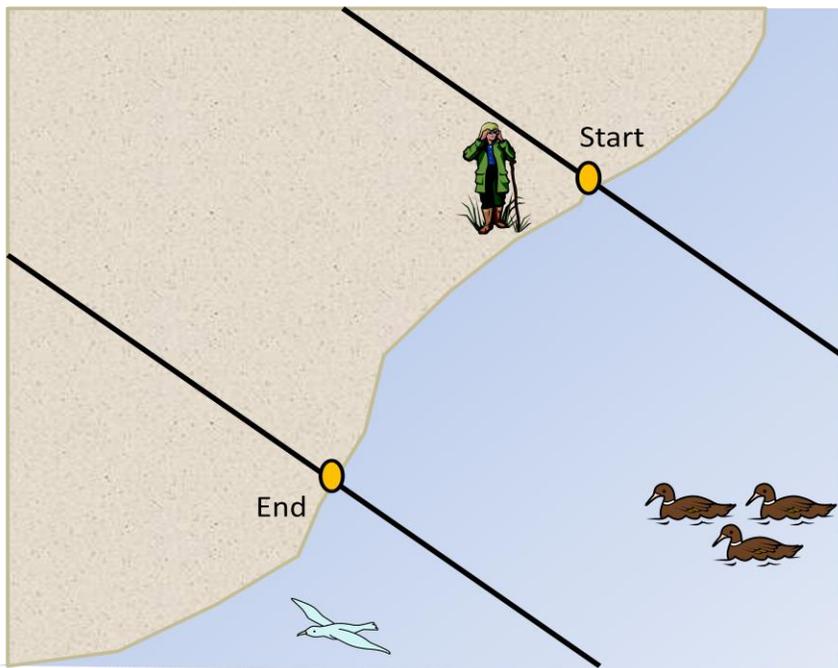


Figure 1. Schematic of imaginary parallel lines marking edges of beach segment monitored. The 3 ducks would be counted as "healthy in water." The gull could be recorded in the Notes section of the data sheet or not recorded at all because it is not within the monitored beach segment.

3c. What to do if you find sick birds or carcasses

If you observe sick bird(s) -

- Record the species and number of sick on the front of your AMBLE data sheet and give details for each individual and describe the symptoms in the notes section on the back of the data sheet. See Section 3d on How to use the GPS unit; however, don't worry about collecting a GPS point for sick bird(s) if doing so will stress the bird(s).

If you find carcass(es) -

- Wear disposable gloves and stand upwind when handling carcasses to make sure that no fluids or contaminated sand can blow into your face. See Section 3f on Safety.
- Remember to fill in information on both the front and the back of the AMBLE data sheet. See Section 3d on How to use the GPS unit.
- Use the Beached Bird Guide created by Common Coast Research and Conservation and/or Birds and Fish of Lake Michigan's Shore by Sleeping Bear Dunes National Lakeshore staff Alice Van Zoeren to help you identify species of carcasses. It is best to ID the bird in the field while you have the specimen in front of you so you can look at it from different angles. If you are still unsure of the species of the bird, but are able to take pictures (either with a digital camera or with a phone or other device), feel free to submit pictures when you submit your data, or email pictures to AMBLE@usgs.gov prior to submitting data. If you find a Common Loon carcass and are able to determine the age of the dead loon using the Guide to Aging Loons, please note the age on your data sheet so that researchers at Common Coast have that information.
- Look for bands or tags on legs, wing, or neck and note their numbers and/or colors and on which side of the bird's body they were placed. Remove from carcasses if possible (needle-nose pliers often work for this). Wash pliers in the lake after use.
- Bury carcasses roughly 2 feet deep, away from the water, but in an area without fragile or rare beach plants (for information and pictures see <http://dnr.wi.gov/org/land/er/biodiversity/>). Wash shovel in the lake after use.
- If your beach is rocky and you cannot bury the carcasses, mark them with non-toxic spray paint to avoid recounting these carcasses in future AMBLEs on your beach.
- Note: The USGS National Wildlife Health Center does not advise the collection of carcasses to be put into home trash cans and sent to landfills. This may just spread the toxin, or other infectious agents. Trash cans can be raided by opossums and raccoons and landfills are frequented by gulls, eagles, and other birds and mammals, all of which could potentially be negatively affected by infectious agents.
- If you find a fresh dead specimen (no smell, no maggots, feathers don't pull out easily), make the decision whether to collect the specimen based on the condition of the carcass and your time availability (see Appendix I for details on how to collect carcasses). If it is a very fresh carcass and/or a rare species, it

is of more interest. Do not collect eagles. If you don't have the time to collect and transport the carcass to an AMBLE freezer (Appendix II), that's ok. Also, consider the open hours of the facility with the nearest AMBLE freezer. If you're able to call your nearest AMBLE freezer location before making the drive to the freezer, that would be good. If you know of another freezer available for AMBLE use, please let us know. Do NOT put carcasses in your personal home freezers. Feel free to call the AMBLE coordinator 608-270-2473 with questions.

- If you decide to collect fresh dead specimens, please follow the adapted USGS National Wildlife Health Center (NWHC) protocol for "Collection and Shipment of Avian and Mammalian Carcasses" included in this document in Appendix I. Depending on the type of beach you monitor, a sled might be a convenient way to transport bagged carcasses from where they are found on the beach to your car. Wash sled after use. Drop bagged and tagged carcasses off at your nearest AMBLE freezer as soon as possible (do not keep a carcass for more than 24 hours). Bagged carcasses in warm temperatures will decay quickly. A carcass shipper will gather up specimens from area freezers and ship them to NWHC in Madison for botulism testing.
- If you don't want to collect carcasses, that's fine as well. Just fill in the back of the data sheet and, especially if you saw 5 or more sick or fresh dead birds, please give us a call (608-270-2473) or email (AMBLE@usgs.gov) after your AMBLE so we can decide if we want to send a carcass collector to your beach to pick up specimens if they are not already buried.
- In general, if you see 5 or more sick or fresh dead (no smell, no maggots, feathers don't pull out easily) carcasses on one walk, please give us a call (608-270-2473) or email (AMBLE@usgs.gov) as soon as possible.

3d. How to use the GPS unit

For our purposes, we need a GPS unit (or a phone) to display the coordinates for a point so that locations can be written down on the Beach Description Form and AMBLE data sheet. We use decimal latitude and longitude format and WGS 84 datum and report numbers to 5 decimal places. Example: 44.75551, -87.33112.

To display coordinates for a point using the Garmin Legend H:

1. Turn the unit on by pressing and briefly holding the power button on the lower right side of the unit as it faces you.
2. The unit will automatically start acquiring connections with satellites. To check the accuracy of your GPS unit at your position, push the button on the upper right side of the unit until you reach the "Main Menu" and then push in the rocker button on the front of the GPS unit to select "Satellite." The accuracy will be displayed as "Location ±" and a number in the upper left hand side of the "Satellite" screen. Wait until you have a location accuracy of at least 20 m. The more accurate the better.
3. Once you are satisfied with your accuracy, push the button on the upper right side until you reach the "Main Menu" again.

4. Use the rocker button on the front of the GPS unit to toggle down to “Mark” and then push the rocker button in to select “Mark.”
5. The coordinates are displayed on the “Mark Waypoint” screen under “Location” – write these coordinates down on your data sheet.

In general, pushing the rocker button on the front of the GPS unit is like hitting the “enter” button on your computer keyboard, you select something with this button. Pushing the button on the upper right side of the GPS unit is like the “escape” button on your computer keyboard, it allows you to backup or undo.

If you want to have your GPS locations internally logged in your GPS unit, you can use the rocker button to toggle up to the box by the flag at the top of the “Mark Waypoint” screen. When the box by the flag is highlighted, push the rocker button in and then select the letters or numbers you want to use to label that location. Select “OK” within the pop-up keyboard when you are done naming the location. Then toggle down to “OK” on the bottom right of the “Mark Waypoint” screen and select “OK”.

You can find and go to logged waypoints by selecting “Find” from the “Main Menu,” then selecting “Waypoints,” then highlighting the waypoint you want to go to and select it by pushing the rocker button. Hit the rocker button again to select the “Go To” box that is highlighted at the bottom of the “Waypoint” screen. Your GPS will now take you to the waypoint you selected. If you hit the button on the upper right side of the GPS unit, you can get to a screen that shows a compass and tells you how far away you are from your selected waypoint. If you are not very familiar with your beach, you might want to mark the start and end points of your beach segment (as defined on your “Beach Description Form”) as waypoints in your GPS and then you can use the GPS to “Go To” your start point as you get ready to AMBLE and, after arriving at the start location, then use the GPS to “Go To” your end point so you know when to stop monitoring. You can enter waypoints from your GPS unit into Google Earth, or visualize the locations on a map with this website:
<http://dnrm.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer>.

The GPS units we hand out should already be set to report coordinates in decimals, but if you are using your personal GPS unit, or borrowing one from elsewhere, please check to be sure you are in decimal latitude and longitude format and WGS 84 datum. On Garmin units, you do this by selecting “Setup” from the “Main Menu” and toggling down to “Units”. “Position Format” should be set to the first option in the drop-down menu (“hddd.ddddd°”). “Map Datum” should be set to “WGS 84”.

There are more instructions at http://www8.garmin.com/manuals/eTrexLegendH_OwnersManual.pdf if you want to learn more.

Note: These GPS units go through batteries pretty fast so make sure to turn it off when you’re not using it and carry extra batteries with you while you AMBLE. Please keep GPS units in plastic bags when not in use to protect them from the elements.

3e. Data sheet and data submission

See Appendix III for an example of a completed AMBLE data sheet.

Notes about filling in the data sheet:

- Fill in this data sheet as completely as possible.

- Even if you don't see any birds (live or dead) please submit the data because the absence of birds is also informative.
- Please do not guess the species of bird; use "unknown duck" or "unknown gull" or even "unknown bird" if you are unable to identify the bird with the resources at hand.
- We know some of this information is subjective. Don't lose sleep over whether you should have selected "Couple Clumps" or "Isolated Spots." These subjective categories refer to the conditions observed over the entire length of your beach so pick the category that best summarizes your whole beach.
- See Figures 2, 3, and 4 for pictures of gobies, algae, and mussels.
- As a general guideline, only report a dead bird if at least 75% of the bird skeleton is present. Don't count a few feathers as a dead bird, nor a single wing. If you find multiple pieces that seem to have all come from the same bird, and when compiled they make up at least 75% of the bird, then count those pieces as one dead individual. The goal is to prevent double counting carcasses that might be spread over multiple beach segments. You can record pieces of birds in the notes section.
- If you find a sturgeon on your beach (see Figure 5), immediately contact Wisconsin DNR biologist Scott Hansen, 920.746.2864, Scott.Hansen@Wisconsin.gov, 110 S. Neenah Ave, Sturgeon Bay. Scott will likely send a fisheries biologist to your beach to take measurements and check for a microchip that would identify that unique sturgeon. Please also alert the AMBLE coordinator (608.270.2473, AMBLE@usgs.gov) that a sturgeon has been found, and note whether or not it has already been reported to Scott Hansen.



Figure 2. Round gobies. Photo credit: John Tracey

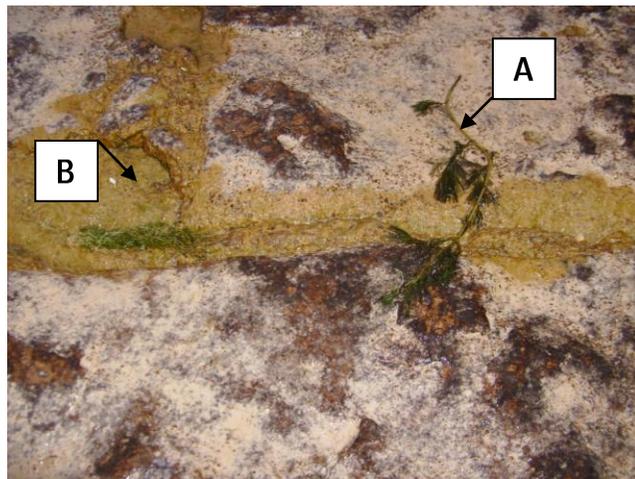


Figure 3. *Chara* (A - darker green and branched) and *Cladophora* (B - lighter green and slimy) algae. Photo credit: Jenny Chipault



Figure 4. Mussel shells and *Cladophora*.
Photo credit: Jenny Chipault



Figure 5. Sturgeon. Photo credit: Alice Van Zoeren

Please submit your data within one week of AMBLE-ing. Follow instructions at the bottom of the data sheet to submit data. You can mail a hard copy of your data sheet (USGS National Wildlife Health Center, ATTN: AMBLE, 6006 Schroeder Rd, Madison, WI 53705), email a completed data sheet to AMBLE@usgs.gov, or enter your data through the online data entry portal on www.nwhc.usgs.gov/AMBLE/. Online data entry through the website is the most efficient so we encourage that mode of data submission if you are comfortable with computers.

If you email your data sheet or enter your data through the online portal, you do not need to mail us a hard copy of your data sheet. However, we encourage you to keep the hard copy, at least until the end of the monitoring season, in case there is need for clarification.

3f. Safety

- Do not AMBLE during a thunderstorm or other extreme weather
- Let someone know when you leave to AMBLE your beach and when you plan to return
- Wear appropriate shoes and clothing to prevent ankle twists, bug bites, etc.
- Wear sunscreen and sunglasses to protect against UV damage to your skin and eyes
- Stay hydrated – bring water
- AMBLE-ing with your dog(s) is fine, but keep dogs away from carcasses. Also, please record that you brought your dog(s) in the “Notes” section of the data sheet as this may affect the number of live birds observed.
- If you bag carcasses, be careful of sharp beaks and feet. If the carcass is not too stiff, punctures to the bag can be mitigated by taping the feet together and then pulling the beak and feet toward each other and taping them together.
- There is always a risk that dead wildlife contain harmful bacteria or toxins and therefore it is important to use practical safety procedures including:
 - WEAR GLOVES WHEN HANDLING CARCASSES SO AS TO NOT GET TOXIN ON YOUR HANDS
 - CAREFULLY REMOVE GLOVES BY PULLING THEM OFF INSIDE OUT
 - STAND UPWIND WHEN MOVING OR BAGGING CARCASSES TO MAKE SURE THAT NO FLUIDS OR CONTAMINATED SAND CAN BLOW INTO YOUR FACE
 - WASH ANY EQUIPMENT THAT CAME IN CONTACT WITH CARCASSES
 - WASH YOUR HANDS WITH SANITIZER ON THE BEACH AFTER BURYING OR BAGGING A CARCASS
 - WASH YOUR HANDS WITH SOAP AND WATER BEFORE EATING OR TOUCHING YOUR FACE
- Call the USGS National Wildlife Health Center promptly to report any injuries
 - AMBLE line: 608-270-2473
 - Main NWHC line: 608-270-2400

**Section 4:
Protocol – Carcass Shipping**

4a. Equipment

Needed:
Disposable gloves
Cooler
Ice packs (FROZEN)
Large garbage bag
Packing tape
Absorbent material (paper towels, newspapers, etc.)
Extra carcass bags
Extra carcass tags
Twist ties or zip ties
Pen
Specimen History Form
FedEx shipping document (airbill)
Hand sanitizer
Protocols
Copy of USFWS Permit & cover letter

4b. Shipment of carcasses

After a few carcasses have been collected from area beaches, we will ask a volunteer carcass shipper to round up carcasses from various AMBLE freezers (Appendix II) and ship them to NWHC in Madison for botulism testing. At that time, the AMBLE Coordinator will provide a list of what carcasses are in what freezers so the proper specimens are gathered. Please only ship carcasses associated with the AMBLE program to NWHC. Only ship Monday through Wednesday to guarantee the arrival of the cooler at NWHC before the weekend.

A Specimen History Form must be filled out and placed into the cooler, as well as faxed (608-270-2415) or emailed prior to arrival of the cooler at NWHC. Safety guidelines prevent lab staff at NWHC from opening a cooler without a Specimen History Form.

See Appendix IV for more information about shipping carcasses.

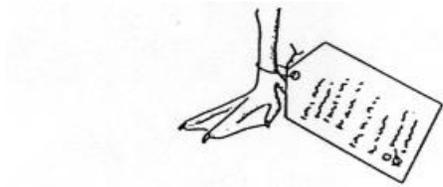
4c. Safety

- There is always a risk that dead wildlife contain harmful bacteria or toxins and therefore it is important to use practical safety procedures including:
 - WEAR GLOVES WHEN HANDLING CARCASSES SO AS TO NOT GET TOXIN ON YOUR HANDS
 - CAREFULLY REMOVE GLOVES BY PULLING THEM OFF INSIDE OUT
 - STAND UPWIND WHEN MOVING BAGGED CARCASSES TO MAKE SURE THAT NO FLUIDS OR CONTAMINATED SAND CAN BLOW INTO YOUR FACE
 - WASH ANY EQUIPMENT THAT CAME IN CONTACT WITH CARCASSES
 - WASH YOUR HANDS WITH SANITIZER AFTER GETTING CARCASSES INTO THE COOLER
 - WASH YOUR HANDS WITH SOAP AND WATER BEFORE EATING OR TOUCHING YOUR FACE
- Be careful of sharp beaks and feet poking through bags – apply tape where necessary
- Call the USGS National Wildlife Health Center promptly to report any injuries
 - AMBLE line: 608-270-2473
 - Main NWHC line: 608-270-2400

APPENDIX I: Collection of Avian Carcasses

(adapted from NWHC "Collection and Shipment of Avian and Mammalian Carcasses")

- Immediately attach a leg tag to each animal with the following information in pencil or waterproof ink:
 - Date collected
 - Species
 - Location (specific site, town, county, state)
 - "Found dead"
 - Collector (name, address, phone)



- Place each animal in a plastic bag, close, and seal the bag. Cover zipper bag closure with strapping or duct tape after sealing zipper. Twist non-zipper bags closed, zip tie, fold over on itself, and secure with package strapping or duct tape.
- Place 1st bag inside a 2nd bag, close and seal. More than one individually bagged animal can be placed in the 2nd bag. This prevents cross-contamination of individual specimens and leaking shipping containers.



- Tag the outside of 2nd bag and indicate the number of animals and type, date collected, location, and name of collector. Reminder order: TAG, BAG, BAG, TAG. Additionally, clearly label the carcasses with "USGS AMBLE program" so that park staff can easily distinguish AMBLE carcasses from other carcasses.
- Drop off bagged and tagged carcasses at your nearest AMBLE freezer (see Appendix II).

APPENDIX II: AMBLE Freezer Information

Door County*

Newport State Park
475 County Highway NP
Ellison Bay, WI 54210
(920) 854-2500
Contact: Michelle Hefty

Peninsula State Park
9462 Shore Road
Fish Creek, WI 54212
(920) 868-3258
Contact: Kathleen Harris

Whitefish Dunes State Park
3275 Clark Lane Rd
Sturgeon Bay, WI 54235
(920) 823-2400
Contact: Carolyn Rock

Potawatomi State Park
(by boat launch)
3740 County PD
Sturgeon Bay, WI 54235
(920) 746-2890
Contact: Don McKinnon

Green Bay

DNR Service Center
2984 Shawano Ave
Green Bay, WI 54313
(920) 662-5100
Mon-Fri, 8:30a-4:00p
Contact: James Harbaugh

Bay Beach Wildlife Sanctuary
Observation Building
1660 East Shore Drive
Green Bay, WI 54302
(920) 391-3683
Mon-Fri, 8:00a-12:00p, 1:00p-4:30p
Contact: Lori Bankson

Oconto/Marinette

DNR Service Center
101 N. Ogden Rd, Suite A
Peshtigo, WI 54157
(715) 582-5000
Mon-Fri, 11:00a-2:00p
Contact: John Huff

*State park hours vary depending on time of year

Lake Michigan Volunteer AMBLE

Avian Monitoring for Botulism Lakeshore Events

TRANSECT INFORMATION

Location: *Europe Bay, Newport*
Date: *8/20/2011*

Observer/Group: *The Smiths*
Start Time: *8:15*
AM PM

Number in Group: *2*
End Time: *8:50*
AM PM

Email/Phone: *smith@aol.com*

Temperature (°F): *60*

Sky: Clear Partly Cloudy Overcast

Precipitation: None Fog Sprinkles Showers Snow

Wind Speed: None Felt on Skin Small Trees Swaying Sand Blowing

Wind Coming From: N NE E SE S SW W NW

Waves: Still Gentle Waves Waves 5-10 ft up Beach Waves > 10 ft up Beach

Cladophora: Shore – None Couple Clumps Isolated Spots Scattered Continuous Thick Mat

(limp, slimy) **Water** – None Couple Clumps Isolated Tufts Scattered Continuous on Lake Bottom Thick, Soupy, Solid

Chara: Shore – None Couple Clumps Isolated Spots Scattered Continuous Thick Mat

(stiff, branched) **Water** – None Couple Clumps Isolated Tufts Scattered Continuous on Lake Bottom Thick, Soupy, Solid

Round Gobies on Shore: None 1-30 > 30

Zebra/Quagga Mussels on Shore: None Couple Clumps Isolated Spots Scattered Continuous Thick Mat

Species	# Healthy shore/water	# Healthy fly-by	# Sick	# Fresh Dead (< 24 hrs*)	# Fresh Dead (24 - 48 hrs*)	# Decomposed (> 48 hrs*)
Ring-billed Gull		13		1		
Herring Gull						
Cormorant	4					1
Common Loon	1					
Horned Grebe						
Red-necked Grebe						
Long-tailed Duck						
White-winged Scoter						
Common Tern						
Caspian Tern						
Common Merganser						
Red-breasted Merg.						
Canada Goose						
<i>Unknown Duck</i>		8				

*See **Bird Condition** descriptions on back.

Notes (Dead fish? Recent storms?):

Thunderstorm two days ago with strong wind from north. We brought our dog with us to walk the beach. Saw terns flying north of our beach.

BONUS! Number of Trash Items Picked Up: 4

Date:

Location:

SICK BIRD OR CARCASS INFORMATION

Species (Sick/Dead Birds Only)	Time	Latitude (example: 44.75551)	Longitude (example: -87.33112)	Bird Condition*	Banded? (Yes/No)	Collected (Yes/No)	Buried (Yes/No)
<i>Ring-billed gull</i>	8:22	N 45.26424	W -86.98437	1	No	Yes	No
<i>Cormorant</i>	8:40	N 45.25527	W -86.98429	3	No	No	Yes
		N	W				
		N	W				
		N	W				
		N	W				
		N	W				
		N	W				
		N	W				
		N	W				
		N	W				
		N	W				

*Bird Condition: 0 = sick, 1 = died in last 24 hours (eyes clear, no smell, no maggots, feathers don't pull out easily), 2 = died between 24 and 48 hours ago (eyes cloudy, no smell, no maggots, feathers don't pull out easily), 3 = died longer than 48 hours ago (eyes cloudy/gone, smells bad, maggots, feathers pull out easily)

IF YOU FIND 5 OR MORE FRESH DEAD OR SICK BIRDS (Codes 0 – 2) ON ONE TRANSECT IN ONE DAY, CONTACT AMBLE COORDINATOR at (608) 270-2473 or AMBLE@usgs.gov

Notes (describe individual carcasses – colors of and/or numbers on leg bands or wing tags and side of body they were on, age of loons, etc.):

Ring-billed gull carcass was dropped off at Newport State Park freezer.

To submit this form, go to www.nwhc.usgs.gov/AMBLE/
OR send completed form as email attachment to AMBLE@usgs.gov
OR send completed form in hard copy to USGS National Wildlife Health Center, ATTN: AMBLE, 6006 Schroeder Rd., Madison, WI 53711

APPENDIX IV: Shipment of Avian Carcasses

(adapted from NWHC "Collection and Shipment of Avian and Mammalian Carcasses")

- Use a hard-sided cooler in good condition for shipment. Close the drain plug of cooler and tape over inside. Line cooler with a thick bag (1 mil thickness, 3rd layer of bags for the carcasses).
- Place absorbent material in the 3rd plastic bag to absorb any liquids that might leak during shipping. Use super absorbent packet or pads, cellulose wadding, paper towels, cotton batting, cotton balls, or newspapers. Do not use packing peanuts or shredded paper.
- Pack the individually bagged animal(s) that are contained within the 2nd sealed bag into the 3rd bag with enough FROZEN BLUE ICE PACKS or similar coolant to keep carcasses cold. Use enough coolant to keep samples chilled if there is a delay in delivery.
 - Blue ice (unfrozen) can be obtained at hardware, sporting goods, or grocery stores.
 - Wet ice can be used if frozen in a sealed plastic container (i.e., soda or water bottle).
 - DO NOT USE DRY ICE.
- Carcasses in freezers should already be double-bagged and labeled, but check this before shipping carcasses to be sure all carcasses will be triple bagged after they are put into the large garbage bag.
- Seal the 3rd bag closed with zip tie and/or tape.
- Place the completed Specimen History Form in the provided plastic sleeve and tape to the inside lid of the cooler. A Specimen History Form must also be faxed (608-270-2415) or emailed prior to arrival of the cooler at NWHC. Lab staff at NWHC will not open a cooler without a Specimen History Form.
- Using packing or duct tape, tape the cooler shut around the perimeter of the lid and at each end using a continuous wrap around the cooler.
- Fill in your address as the sender and the weight of the cooler (when packed) on the FedEx shipping document (airbill).
- Attach the FedEx shipping document to the handle of the cooler in a re-sealable pouch using a zip tie and tape the supplementary label to the outside of the cooler.
- Drop the cooler off at the nearest FedEx location (1331 Waube Lane, Green Bay) or call 1-800-GoFedEx to schedule a pick up. Only ship Monday through Wednesday to guarantee the arrival of the cooler at NWHC before the weekend. Note the tracking number in case the package is delayed.

