

AVIAN BOTULISM MONITORING

The Tip of the Mitt Watershed Council coordinates volunteer monitoring of avian botulism outbreaks on Great Lakes' shorelines in the Northern Lower Peninsula. Avian botulism is a paralytic condition affecting primarily migratory waterfowl (and fish) that is brought on by ingestion of a toxin produced by naturally occurring bacteria. Although there have been outbreaks in the past, the current outbreaks have taken a heavy toll with thousands of dead or sick birds have been appearing on the northern shorelines of Lake Michigan since 2006.

The Watershed Council has taken the initiative to educate the public and coordinate monitoring activities in order to better understand the extent and gravity of the recent outbreaks. Volunteers from the [Emmet County Lake Association](#), the [Petoskey Regional Audubon Society](#), other organizations, and the general public are now assisting the Watershed Council to track the number and types of birds and fish dying from botulism. Efforts are primarily focused on the Lake Michigan shoreline in Emmet County, with much of the 74 miles of shoreline monitored by volunteers.

What does a Beach Ranger (i.e., avian botulism monitor) do?

1. Surveys/walks a given section of shoreline on a weekly basis during the months of September, October, and November.
2. Records the number and types of dead or sick birds and fish found during the weekly survey on a monitoring form ([LINK TO FORM](#)).
3. Disposes of bird carcasses by using protective gloves to place them in a garbage bag and put in household trash or bury far as possible from the shoreline and at least 2' deep.
4. If not feasible to dispose of or bury dead birds, volunteers mark the beak and head with paint to avoid double counting during subsequent monitoring.
5. Any freshly dead or sick birds are reported immediately to the Watershed Council to make arrangements with the Michigan Department of Natural Resources (MDNR) necropsy laboratory in Lansing to determine cause of death.
6. Any dead lake sturgeon (a state-listed threatened species) are reported immediately to the Watershed Council or to the MDNR.
7. At the end of the season, volunteer monitors send a copy of their monitoring form to the Watershed Council office for inclusion in the avian botulism database.

What is needed to monitor avian botulism outbreaks?

To report and safely dispose of dead birds, the following list of materials are necessary or helpful for volunteers (i.e., Beach Rangers) or anyone else involved in monitoring avian botulism outbreaks.

- ✓ Reporting form and clipboard
- ✓ Pencil or waterproof pen
- ✓ Camera
- ✓ GPS
- ✓ Protective gloves
- ✓ Plastic garbage bags
- ✓ Duct tape
- ✓ Spray paint
- ✓ Small shovel (optional)
- ✓ Sled for hauling carcasses (optional)

Safety and other considerations?

DISPOSING OF CARCASSES. If you find a bird carcass...

- Bird carcasses should not be handled with bare hands. Wear gloves or use a garbage bag over your hand to collect bird carcasses.
- Use a small piece of duct tape to wrap the bird's sharp bill. This will prevent the bag from tearing open once it's placed inside.
- Bird carcasses should be placed in garbage bags. The number of birds per bag will depend on the size of the birds and the quality of the garbage bags.
- Carcasses can be disposed of in your household trash.
- Birds can also be disposed of by burying them. If you bury carcasses, do so as far as possible from the shoreline and bury them at least two feet deep (do not bury inside of garbage bags). Burying them to this depth will discourage other animals from unearthing them. Do not place them in compost.
- You can remove and bury animal carcasses on your property only unless you receive permission from the property owners to remove and/or bury carcasses from their land.
- Once you finish handling the carcasses, you should dispose of your gloves in a garbage bag and place them in trash that is going to a landfill.

FOR YOUR PROTECTION (and that of your pets), there are a few simple precautions that should be taken. Botulism E poisoning is caused by a toxin, not a disease, and therefore, personal protection is based on not ingesting any toxin. Although no Type E botulism illnesses have been associated with swimming along the lakeshore where fish

and bird die-offs have occurred, pets and humans could become sick if they ingest the botulism toxin by eating contaminated birds or fish.

- ✓ Always wear protective gloves when handling carcasses.
- ✓ Stand upwind when moving or bagging carcasses to make sure that no fluids or contaminated sand can blow into your face.
- ✓ Wash your hands after handling carcasses.
- ✓ Make sure pets do not come in contact with wildlife carcasses (keep on a leash in areas with dead birds or fish).

If you find a bird with one or more bands or a fish with tags:

- ✓ Record the band numbers (and colors if present).
- ✓ Note which leg each band is on (for birds).
- ✓ Remove the band(s) or tag(s) and bring back if possible (needle-nosed pliers work for this).
- ✓ If you can't remove them, make a note of it, and report to the Watershed Council and/or MDNR (800-292-7800).
- ✓ Contact the Watershed Council or MDNR to make arrangements for returning bands or tags.

Please return monitoring forms to:

MAIL: Tip of the Mitt Watershed Council

Attn: Kevin Cronk

426 Bay Street

Petoskey, MI 49770

FAX: (231) 347-5928

EMAIL: kevin@watershedcouncil.org

THANK YOU FOR YOUR PARTICIPATION!

For additional information, please contact Kevin Cronk at (231) 347-1181, ext.109 or e-mail kevin@watershedcouncil.org.