

BOTULISM NETWORK FOR NORTHERN LAKE MICHIGAN

Annual Report

2008

WHO WE ARE

In February 2008, Mark Breederland of Michigan Sea Grant convened a BotE Coordination Meeting in Roscommon, MI. As a result of this meeting, a group of concerned citizens who care about the Great Lakes and are concerned about significant die-offs of waterbirds associated with Botulism E outbreaks formed an organization called the Botulism Network for Northern Lake Michigan (BOTNET).

BOTNET consists of representatives from the following groups: The Watershed Center- Grand Traverse Bay, Inland Seas Education Association, Michigan Sea Grant, and Tip of the Mitt Watershed Council, Sleeping Bear Dunes National Lakeshore, Common Coast Research & Conservation, Michigan Loon Preservation Association, and White Pine Associates.

CONTACT

The Watershed Center Grand Traverse Bay
13272 West Bay Shore Drive
Traverse City, MI 49684

Andy Knott, Executive Director
Phone: 231.935.1514.

WHAT WE DO

Working with the Michigan Department of Natural Resources, Common Coast Research & Conservation, and The Watershed Center- Grand Traverse Bay, the Network monitored beaches along Grand Traverse Bay and Northern Lake Michigan and responded to calls from local citizens.

BOTNET Service Area

Northern Lake Michigan Shoreline: 450 miles

Number of Counties Served: 13

Counties served: Alpena, Antrim, Benzie, Charlevoix, Cheboygan, Delta, Emmet, Grand Traverse, Leelanau, Mackinac, Menominee, Presque Isle, and Schoolcraft

BOTNET engaged in education and outreach activities. We developed a Beach Ranger Training Manual and Survey Form, trained more than 60 volunteer Beach Rangers, and spoke to more than 1600 people about botulism in the Great Lakes. A

press kit was distributed to area media, which resulted in good coverage of the issue throughout the year.

UNSOLVED MYSTERY

Compared to 2007, this was a very quiet year for botulism in Lake Michigan. Fewer than 200 birds were reported for the Northern Lake Michigan Beach Survey. Scientists are speculating about the causes of the decline in the number of dead birds.

Ken Hyde, National Park Service, conducted research with an ROV (remote operating vehicle). Videos from this research show extensive quagga mussel beds in Lake Michigan. Aerial photographs show expanding cladophora beds, too. The actual mechanism for the spread of botulism is still under study.

Hans Van Sumeren, NMC Water Studies Institute, reported data from the mid-lake buoy indicate that the lake level of Lake Michigan is rising, and water temperature increased more gradually in 2008, because it stayed colder longer in the spring. These conditions may have influenced the decreased die-offs.

BEACH RANGERS

If you want to serve as a volunteer for 2009, then please keep your handbook. You will receive an e-mail alert when it is time to begin monitoring.

If you are not interested in monitoring this summer and fall, then please return your handbook: The Watershed Center

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U.S.EPA UPDATE

A Great lakes Botulism Coordination Network is being formed. BOTNET will become part of this basin-wide effort to monitor and study botulism. They have begun developing a manual and we have shared ours with them. We'll keep you informed as changes develop.

Again, thank you for your willingness to help with this all volunteer effort to monitor the beaches of Northern Lake Michigan. If you have questions, please call The Watershed Center: 231.935.1514.

Let's hope for another cool SPRING!

BEACH SURVEY RESULTS

According to Tom Cooley, MDNR Wildlife Research Laboratory in Lansing, confirmed that 3 birds were positive for Type E botulism from Oceana, Mason and

Emmet counties. No dead loons were reported. No other birds were observed, and no other reports were submitted after these birds were collected.

Ken Hyde, Sleeping Bear Dunes National Lakeshore, reported 99 dead birds in Leelanau and Benzie counties, including 12 common loons. Ten specimens were sent to the USGS National Wildlife Health Center in Wisconsin, and all were confirmed with Type E botulism.

Damon McCormick, Common Coast Research reported 83 bird carcasses in Schoolcraft and Mackinac counties: 16 double-crested cormorants, 11- red-necked grebes, 11-horned grebes, 9- ring-billed gulls, 7- common loons, 4- herring gulls, 4- white-winged scoters, 1- mallard, 13- unidentifiable waterbirds and 7- unidentifiable gulls. Three carcasses were collected and have been submitted for necropsy. No results are available at this time.

Mark Breederland, Michigan Sea Grant, reported only 2 carcasses, but neither was collected.

BOT NET ACCOMPLISHMENTS

Educational Materials

Developed 75 BOT NET Beach Ranger Training Manuals- The Watershed Center Grand Traverse Bay

Assembled 50 BOT NET Response Kits- Tip of the Mitt Watershed Council
Developed 15 Press Kits- The Watershed Center Grand Traverse Bay

Beach Rangers Training

Number of County Coordinators Recruited: 5

Number of Beach Ranger Training Workshops: 4

Elk Rapids, Antrim County (9/13/08)

Petoskey, Emmet County (9/15/08)

Suttons Bay, Leelanau County (

Traverse City, Grand Traverse County (8/18/08)

Number of Beach Rangers Trained: 61

Antrim County- 21

Charlevoix/Emmet Counties- 1

Grand Traverse County- 20

Leelanau County- 20

Community Outreach

Number of public presentations: 23

Breederland (MSUE)-13

Ken Hyde (NPS)-3

Joe Kaplan (CCRC)-3

Keren Tischler-5

Number of people reached: 1632
Breederland (MSUE)-772
Ken Hyde (NPS)-470
Joe Kaplan (CCRC)-240
Keren Tischler-150

Media Outreach

Established working relationship with area newspapers: Sheri McWhirter-
Traverse City Record Eagle, Tom Vranich- Elk Rapids Review,
Linda Gallagher- Bellaire Review
Interview with Kevin Cronk on the Merlin Show- WTCM Radio
Interview with Mark Breederland on Points North Show- WIAA Public Radio
Interview with Andy Knott on the Ron Jolly Show- WTCM Radio
Published articles in newsletters: Three lakes Association and Michigan Lakes
and Streams Association
Submitted 3 press releases to area newspapers

Public Presentations

Beaver Island Association/CMU Biological Station- Beaver Island
Burt Lake residents- Burt Lake
Calvin College Biology Seminar Series- Grand Rapids
Emmet County Board of Commissioners- Petoskey
Emmet County Lakeshore Association- Harbor Springs
Fort Wilkins State Park- Copper Harbor
Inland Seas Education Association- Great Lakes Issues Seminar Series- Suttons
Bay
International Migratory Bird Festival- Copper Harbor
Isle Royal National Park- Houghton
Lake Erie Millenium Network Conference- Windsor, Ontario
Lake Michigan Monitoring Coordination Council- webcast
Laughing Whitefish Audubon Chapter Meeting- Marquette
Michigan Audubon Society Regional Meeting- Marquette
Michigan Bird Conservation Initiative- Petoskey
Michigan BotE Coordination Meeting- Roscommon
Michigan DNR Fishery Assistant Training- Higgins Lake
Michigan Fish Producers Association- Traverse City
Michigan Sea Grant Regional Sport Fishery Meeting- Ludington
MSUE Benzie County Meeting- Frankfort
Petoskey Region Audubon Society Meeting- Petoskey
State of the Great Lakes Ecosystem Conference- Niagara Falls, Canada
Three Lakes Association, GRNA, Friends of Clam Lake- Bellaire
Tip of the Mitt Watershed Council- Petoskey
U.S. EPA Botulism Research Meeting- Detroit