

# THE GLQO WATERSHED JOURNAL



*The Gull Lake Watershed includes Gull Lake, Little Long Lake, Grassy Lake, Little Gull Lake, Miller Lake, Bullhead Lake, Duck Lake, Backus Lake, Dake Lake, Elliston Lake, Mud Lake, Wintergreen Lake, and Prairieville Creek.*

## WHY THE SMELT DIE-OFF?

*By Bryan J. Beck, Fisheries Committee*

Over the weekend of June 11<sup>th</sup> and 12<sup>th</sup>, residents and visitors may have noticed an extraordinarily large number of dead smelt in Gull Lake. Based upon our conversations with local anglers and with the DNR, we understand that the most likely cause of the smelt die-off was thermal stress as Saturday, June 11<sup>th</sup> was one of the hottest days of early summer. The appearance of the dead fish supports this conclusion due to the absence of hemorrhages or other signs of disease. Most of the smelt were similar in size and presumably were schooling together in the same type of habitat. While much of Gull Lake, especially the deeper water, remained cool, schools of smelt may have been trapped in bays or other localized patches of warm water. Smelt are less tolerant of increases in water temperature than bass or bluegills, which explains the preponderance of smelt in the kill.



We understand that a DNR technician visited Gull Lake and collected some dead smelt, however, there was no plan to send them to the laboratory. Given the condition of the fish it would only be possible to test for viruses. It is necessary for a diseased fish to be alive to definitively identify bacterial pathogens. There are not any well-known bacteria or viruses that only infect smelt. Our understanding is that the smelt die-off is not indicative of any water quality problem in Gull Lake and even if the fish kill was caused by a bacteria or virus (which seems unlikely), the organisms that infect fish are not a safety risk to humans.

## SUMMER 2016

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*The Gull Lake Quality Organization is an All-Volunteer Organization. Our mission is to address concerns and provide education regarding the use of natural resources of the Gull Lake Watershed.*

## GLQO ANNUAL MEETING

Please plan to join members and friends of the Gull Lake Quality Organization for its annual meeting on Tuesday, August 2<sup>nd</sup> in the Terrace Room at Kellogg Manor.

A social time\* begins at 6:30 pm with the meeting beginning promptly at 7:30 pm.

*\*Light hors d'oeuvres and cash bar.*

*Continued on Page 2*

## ***SMELT DIE-OFF (continued)***

### ***The following is a summary of the DNR's Findings:***

- 1) There was a rapid change of temperature - The key data point is not necessarily how hot the air temperature got, but rather how quickly the air temperature went from cold to hot. The fish need time to adjust. For example the temperature on Thursday, June 9<sup>th</sup> was 45 degrees Fahrenheit in the morning and then by midday on Friday, June 10<sup>th</sup>, the temperature was 90 degrees Fahrenheit.
- 2) There were very few other species of dead fish - Though some other species may have also been impacted by the thermal stress, it is not a coincidence that the bulk of the kill was smelt as they have a lower tolerance to increases in water temperature.
- 3) The smelt were all the same size/age - After birth, schools of smelt stay together for an extended period of time, therefore, there were likely only a handful of schools that were all together in the same location and experiencing the same detrimental thermal conditions in the water.
- 4) The dead smelt showed no signs of any disease or hemorrhaging - There was no visual evidence of bacteria or virus.

From the DNR's standpoint, the evidence of thermal stress was so compelling; they did not do any additional testing on the smelt.



## ***SWIMMER'S ITCH AND HOW TO AVOID IT***

*By Gary Mittelbach*

Fortunately, there seem to be few reported cases of swimmer's itch in Gull Lake these days, but I remember well when our sons were little how they would occasionally get it when swimming at the pagoda at the Biological Station. Swimmer's itch is a problem in many Michigan lakes in the summer and it is definitely painful (but not dangerous). As the picture to the right shows, swimmer's itch appears as a series of red welts that itch like mosquito bites. Often the welts appear in a line near the waistband or straps on your bathing suit and there's a good reason for that.

To understand why, you need to know a little bit about what causes swimmer's itch. Those red welts are caused by the larvae of a flatworm parasite whose adult stage lives in ducks and other waterfowl (the parasite does not live in people, so don't



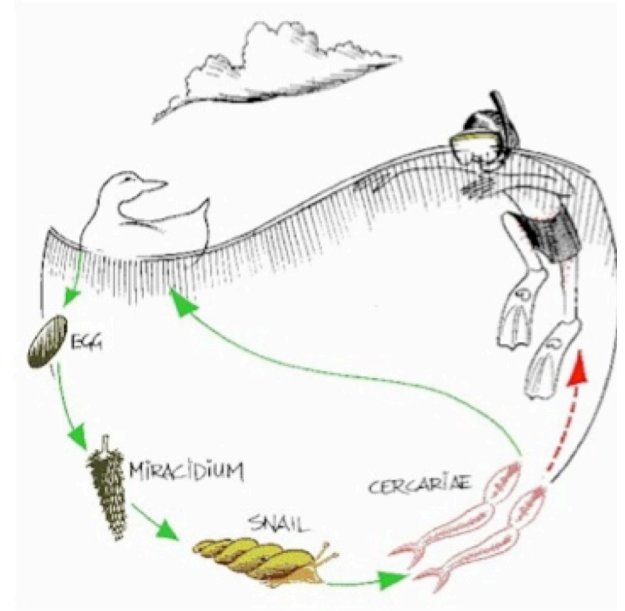
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## ***SWIMMER'S ITCH (continued)***

worry about that). As the diagram to the right shows, the life cycle of this flatworm is complex (like most parasites), with an intermediate and final host. The parasite matures in a bird (its final host), which then sheds the parasite's eggs into the water (you can guess how that happens). The first larval stage (miracidium) infects a snail, where it then matures into a second larval stage that seeks to infect a bird (or occasionally a rodent).

Here's where the problem for people comes in. If you are swimming in an area where snails are shedding the parasite's "cercaria" (pronounced SIR-CARE-E-AH), these tiny cercariae can get on you. Fortunately, they can't infect you (humans aren't a "competent" host). But, they may try to burrow into your skin and when they die (I know, YUCK!), they can produce a nasty welt, depending on how your body reacts. These welts can be confused with mosquito or chigger bites, but as mentioned above, they often occur along a line at the border of your swimming suit. That's because the parasite doesn't really want to infect you, but as your skin is drying they've got to go somewhere and the last spot of wet skin is at the edge of your bathing suit.

So, a good way to avoid getting a bad case of swimmer's itch is to **always towel off well and quickly when you get out of the lake** (be sure to dry underneath waistbands and around leg openings of swimming suits). If you do come down with "the itch", don't panic. The bumps will disappear in a few days and applying an antihistamine cream like you would to treat poison ivy or mosquito bites will help relieve the itch. Swimmer's itch isn't contagious, so you can't spread it to others or to other places on yourself. But, scratching till you bleed is never a good idea. There's no effective way for people to eliminate swimmer's itch on their beach, but one thing that certainly helps is **don't feed the ducks**. New occurrences of swimmer's itch seem to be strongly associated with people feeding and attracting ducks to shallow waters. Enjoy the summer, the lake, and the beach. Swimmer's itch is rarely a problem in Gull Lake. But, if you do encounter it..... well, now you know a little more about it.





## SCORE THE SHORE

By Mike Gallagher

Have you seen our team of volunteers slowly cruising along the shore of Gull Lake? Those volunteers have participated in the training for Michigan's Score the Shore Program. Score the Shore data, combined with educational resources describing the value of healthy shorelines and how to restore and maintain them, can be incorporated into lake management planning and used for educating lakefront property owners.

The team hopes to finish the project by the end of July. Once completed, we'll post the scores on [glqo.net](http://glqo.net). The study will be repeated every few years to gauge overall improvement to the shoreline.

Visit the Michigan Natural Shoreline Partnership website at [mishorelinepartnership.org](http://mishorelinepartnership.org) for a wide variety of information and resources to help you maintain a healthy, natural shoreline and ultimately preserve the quality of Gull Lake.



### More about Shorelines . . .

#### Did you know?

According to the Michigan Shoreline Stewards' website, "The biggest threat to Michigan's inland lakes is the loss of near shore habitat. The National Lake Assessment results indicate that forty percent (40%) of Michigan's inland lakes were rated as poor with another 20% rated as fair for lakeshore habitat. It is clear that high impact development such as removing native plants on the land and in the water, excessive impervious surfaces (buildings, driveways etc.) and seawalls are causing problems for inland lakes."

Is your shoreline beautiful *AND* helping the quality of the lake? If so, we'd like you to be recognized. The Shoreline Stewards Program was developed by the Michigan Natural Shoreline Partnership to provide recognition for lakefront property owners who are protecting inland lakes through best management practices. Their website provides a free on-line survey for property owners to assess their shoreline. Three different levels can be achieved, Gold, Silver or Bronze. If you're not "Gold," suggestions will be provided for how you can improve your shoreline habitat. Learn more at [mishorelandstewards.org](http://mishorelandstewards.org).







Thanks to all who joined us for the “Summer Party.” We watched the mobile boat wash in action and learned about its effectiveness in stopping the spread of invasive species. Thanks to MSU’s Dr. Jo Latimore, PhD for sharing information about boat washes, Score the Shore Program, natural shorelines and the Cooperative Lake Monitoring Programs.



Boat wash volunteers with Mike Gallagher and Dr. Jo Latimore



(left)  
GLQO  
recognizes  
Rita Light,  
one of its  
original  
members.

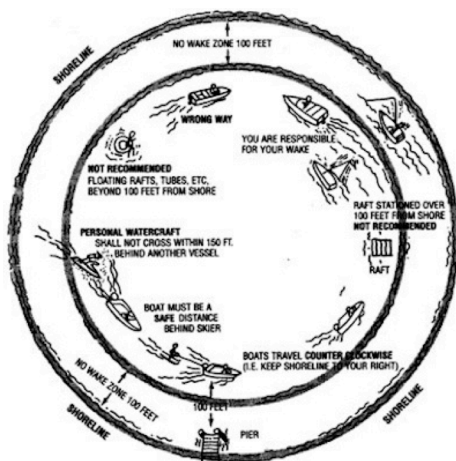


Mike talks about the “Score the Shore” Program

## Boater Safety Update

By Pete Hawk, Boater Safety Committee

We want to remind boaters of two Michigan regulations: the 100-foot rule and counterclockwise operation of your boat. The counterclockwise graphic below is provided by Michigan Lake & Stream Associations. Also, remember to remain 100 feet from docks and rafts, swimming areas or anchored or floating vessels.



Wakeboating in the middle of the lake minimizes the negative environmental and ecological impact caused by wakeboats' wave height and frequency.



***We thank the 2016  
GLQO Corporate Members***

Boris Realtors  
Gull Lake Marine  
Gull Lake Ministries

Hawks Hollow Builders  
Ice House, LLC  
Kalamazoo Insurance

Kalamazoo Mortgage  
Mac's Garage  
Serafino's

GLQO gratefully acknowledges the  
Gull Lake Marine Center, Gull Lake Ministries, Prairieville Township, Richland Township and Ross Township  
for their support for the marine patrol to ensure boaters' safety and provide quick response.

***We thank the 2016 GLQO Individual and Family Members***

Anonymous (23)  
Scott and Holly Allen  
Mike and Lou Ann Ambro  
Bob and Janice Baker  
Bud and Judi Baldwin  
Bryan and Courtney Beck  
Michael Beeman  
Mac and Susan Behnke  
Lynn and Tom Belco  
Margie and Bob Berres  
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Sue Markus and Rick King  
Rolf and Judy Kletzien  
Susan Kolb  
Dave and Kay Koldyke  
Tim Kool  
Shirley Kruger

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JB and Alba McKay	Martin and Carol Ranly	June Spelman	David and Cindy Wiedemer
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Gary Mittelbach	Rollin and Crystal Richman	David and Carol Ticknor	Marsha and Bob Zick

### ***Not Yet A Member? Join GLQO on-line at GLQO.NET***

Every effort is being made to report members' names as you have requested.  
Some members have requested to remain anonymous. If you see an error, please e-mail [info@glqo.net](mailto:info@glqo.net).

*GLQO gratefully acknowledges the Richland Area Community  
Center for inviting us to hold our regular board meetings there!*





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## The Gull Lake Quality Organization

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P.O. Box 34 / Hickory Corners, Michigan / 49060  
Website: [glqo.net](http://glqo.net)  
Contact: [info@glqo.net](mailto:info@glqo.net)



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### Upcoming Events

**Tuesday, August 2<sup>nd</sup> at 6:30 pm**  
**GLQO Annual Meeting**  
**Terrace Room at Kellogg Manor**

**Sunday, August 7<sup>th</sup> at 3:00 pm**  
**Lakeside Concert with the**  
**Cereal City Concert Band**  
**W.K. Kellogg Manor House**

**Tuesday, September 13<sup>th</sup> at 7:00 pm**  
**GLQO Board Meeting**  
**Richland Area Community Center**

**Tuesday, November 1<sup>st</sup> at 7:00 pm**  
**GLQO Board Meeting**  
**Richland Area Community Center**

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### 2016-2017 Board of Directors

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Vicki Gesmundo Marcinek **(17-1)**  
**Vice-President**  
Jane Bruns **(17-2)**  
**Secretary**  
Chip Garside **(17-2)**  
**Treasurer**  
Bryan Beck **(18-1)**  
Kai Free **(18-1)**  
Kathy Gallagher **(17-1)**  
Mike Gallagher **(17-1)**  
David Halley **(16-2)**  
Pete Hawk **(16-1)**  
Ed McCarty **(17-2)**  
Gary Mittelbach **(16-2)**  
Don Paulson **(17-1)**  
Tim Richardson **(16-1)**  
Drew Worgess **(17-2)**

*GLQO by-laws allow volunteers to serve as directors for two consecutive three-year terms. After each Director's name are two numbers: the **year** their current term expires, and the **number** of the current term.*

*We welcome you to volunteer for committee work (of your choice) and to participate in our board meetings.*

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