

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.

LAKE TROUT ARE CONSUMING PLASTIC FISHING BAITS

By Brook Wilke, Fisheries Committee

Several years ago, my two young boys and I were practicing casting and sorting through fishing tackle in our back yard, which we quickly realized was a bad idea. Before long, one of our free-range chickens picked out a 10-inch plastic worm from our collection and was racing off to safety in an effort to consume the apparent morsel. Luckily, we could retrieve the worm before it made its way into the chicken's digestive system.

As it turns out, lake trout appear to have a similar appetite for imitation plastic baits. A quick search on the internet turns up information about anglers reporting plastic fishing bodies inside the stomachs of lake trout. Further discussion with local anglers and regional DNR biologists confirms that lake trout caught from Gull Lake are often found to have these plastic baits within their digestive tracts. Most reports identify one, or a few of these baits, within fish that appear otherwise healthy. It is less common to find these plastic baits in the stomachs of other predatory fish (such as northern pike) in Gull Lake. However, during my own fishing experiences, I found one plastic tube bait in a pike caught in another local lake in 2017.

Also, astonishingly, one fish (pictured to the right) was caught through the Gull Lake ice in 2018, and had a total of 14 plastic fishing baits in its stomach! While the fish was nearly 30 inches long, it was quite thin and appeared to be in poor health. After fileting the fish, the angler decided not to consume it because the flesh was a different color and texture than normal.

While it's possible that lake trout are stealing these baits directly off angler's hooks, it's more likely that they are consuming the baits off the bottom of the lake.

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WINTER 2018

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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.



LAKE TROUT ARE CONSUMING PLASTIC FISHING BAITS *Continued*

Of the 14 baits in the pictured fish, only one of the baits had a hook still attached. Occasionally, these baits can be pulled from the hook during the act of fishing, but it's also a possibility that anglers are disposing of used plastic baits by throwing them overboard from the boat instead of bringing them to a garbage receptacle after fishing.

Nearly 30,000 lake trout have been added to Gull Lake by the Michigan Department of Natural Resources since 2010 (<http://www.michigandnr.com/fishstock/>), including 170 fish in the fall of 2017 ranging from 9-17" in length. Anglers have reported regular catches of these fish in the recent past and expect to continue catching them in the future.

In order to reduce the effects of these fish consuming plastic baits and harming these fish, we encourage you to consider adopting the practices below. Thank you in advance for working to enhance the health of the lake trout in Gull Lake.

- Avoid discarding used plastic baits into the water
- Replace worn plastic baits during fishing to avoid the baits being stripped from the hook
- Consider purchasing (or making) biodegradable plastic baits. Several manufacturers claim that certain baits of theirs are biodegradable (e.g. Berkley Gulp, Fishbites Extreme).



INVASIVE WEEDS - - PAST AND PRESENT

By Mike Gallagher, Water Quality Chairperson

Way back in 1941, researchers Perry and Brown (1942) observed that Gull Lake was "well supplied with submergent vegetation from the edge of the sand and gravel shoals to depths as great as 40 feet." They identified 24 aquatic plant species.

In 1991, James L. Dexter, Jr. of the Michigan Department of Natural Resources wrote in his Status of Fishery Resource Report that he "would rank the overall aquatic plant community as "sparse" rather than "well-supplied," but have not examined it closely."

More recently, in the summer of 2013, the GLQO performed an aquatic vegetation survey with training and assistance by Dr. Jo Latimore of Michigan State University through the Cooperative Lakes Monitoring Program. That survey showed a variety of 26 plant species and no evidence of harmful aquatic invasive species.

Things began to change in 2015 when an observant resident of Gull Lake, Ed Ihling, noticed an unusual weed at the end of his dock. Upon closer inspection, the plant was identified as starry stonewort, an aquatic invasive species that has wreaked havoc on many Michigan lakes since 1995. Dr. Steve Hamilton, of the Kellogg Biological Station and a frequent advisor to the efforts of the GLQO, further surveyed the area surrounding Ed's dock. A small patch of starry stonewort was found in one other area about a quarter mile from Ed's dock. That left us with the question, could there be more?

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Life in the Slow Lane – What do Turtles do in Winter?

By Gary Mittelbach, Vice President

Michigan is home to ten species of turtles, many of which spend their lives in lakes and ponds. Did you ever wonder what happens to turtles when the lakes and ponds freeze? Unlike you and I, they can't book a flight to Cancun or drive to Florida. Somehow, they tough it out until spring returns. How do they do it? It's all about how their body responds to temperature. Turtles are cold-blooded (ectothermic), which means that they do not produce their own body heat. That is why we often see them basking in the sun (like the painted turtles in the picture on the right).



Doing so raises their body temperature, allowing them to be more active, to catch and digest their food easier, and to grow faster. Just the opposite happens when temperatures drop. When a turtle's body temperature reaches 40 degrees or so in the late fall, they become sluggish, stop eating, and they seek hiding places to get through the winter. Most freshwater turtles burrow into the mud at the bottom of the lake where it is cold but the water doesn't freeze. Here, their metabolic rate drops to about 5% of normal and they go into a state of hibernation, allowing them to use very little oxygen and to survive for months without eating. They get the oxygen they need from the water or sometimes putting their head up through a hole in the ice.

Interestingly, while the adults are spending the winter buried in the bottom of the lake, baby turtles often spend the winter buried underground on land. Female turtles lay their eggs in the spring, traveling away from the pond to lay their eggs underground on land. In many turtle species, the eggs hatch in the fall but the hatchlings remain underground in the nest (on land) for the winter, emerging above ground in the spring. This is known as overwintering in the nest. Want to know something even stranger about the effect of temperature on turtles? For most turtles, the sex of the hatchling (male or female) is determined by the temperature the eggs experience in the nest. Warmer temperatures typically produce females and cooler temperatures produce males (You may have read recently; how rising temperatures are causing more sea turtles to hatch as females).

Turtles live life in the slow lane. So, don't feel sorry for them spending the winter buried in the bottom of the lake in suspended animation. They have time. Turtles can easily live 50, 80, even 100 years and some Michigan turtles take up to 20 years to mature. As adults, they have few predators and face few dangers, except of course from cars and people. Watch out for turtles crossing roads in spring to go lay their eggs. And remember, if you stop to help a turtle cross a road (only do this if it's safe), always move it in the direction it was heading.

Looking for Summer Fun in the Sun?

GLQO invites you to consider an opportunity to apply to work at the boat wash at Prairieville Township Park. You will help to protect our lakes and make money too. It's a flexible schedule, but the position does include weekends and holidays. Please email Linda at linda@gulllakemi.com for an application.

GLQO Board Notes and Updates

Boating Safety Review:

This past year, the Marine Patrol logged in 1253 hours of patrol time. This is down from 2016, when the marine patrol hours were 1722 hours. Statistics provided by the Kalamazoo County Sheriff Department are:

- Careless Operation Warnings (168)
- Careless Operation Citations (6)
- Personal Flotation Device "PFD" Warnings (53)
 - "PFD" Citations (5)
 - Navigational Warnings (28)
 - Registration Warnings (83)
 - Registration Citations (6)
 - Vessel Safety Checks (17)

GLQO thanks all involved with the Kalamazoo Marine Division and those contributors to the marine patrol. Your financial support helps Gull Lake to be a safer and more enjoyable experience for all boaters and lake enthusiasts.

Membership Committee Update:

This past December, GLQO launched its annual membership drive. The theme is **"YOU and One Other."** With nearly 1000 riparians in the watershed, we need **YOU and One Other** to join in support of the important work of the Gull Lake Quality Organization.

Check out the list of members (on pages 6 & 7) who joined as a part of the 2018 membership drive. Talk with your neighbors, folks down the beach, anyone who has an interest in preserving property values and all the lakes within our watershed. GLQO relies on voluntary membership dues to support its work.

Need Some Reasons To Join? This year, GLQO:

- ✓ Constructed and staffed the "Boat Wash" at Prairieville Township Park. Most of the funding (nearly \$70,000...Thanks to our supporters!) was provided by GLQO. We spoke with hundreds of boaters to educate them about the Clean Boats, Clean Waters Project.
- ✓ Celebrated the Welcome to Summer Party where we released the individual and cumulative results of the "Score the Shore" Program.
- ✓ Assisted Kellogg Biological Station/MSU Extension with the Lake and Stream Leaders Institute and Michigan Shoreline Partnership's "Protecting Your Shoreline" Workshop.
- ✓ Completed our 9th year of the Cooperative Lakes Monitoring Program on Gull and Little Long Lakes. By measuring clarity, phosphorous, chlorophyll, dissolved oxygen and temperature every year; we identify trends that help us to manage the lake quality.
- ✓ Coordinated the treatment of starry stonewort by garnering support from affected riparians and providing partial funding.
- ✓ Initiated discussion about developing potential long-term streams of funding for treatment of aquatic invasive species.
- ✓ Hosted the GLQO annual meeting where guests learned more information about our responsibility to develop healthy shorelines and raingardens to improve lake quality.
- ✓ Helped to facilitate fish stocking by the DNR; 170 Lake Trout were added this fall.
- ✓ Maintained communication with supporters through our newsletter, GLQO website and Facebook.

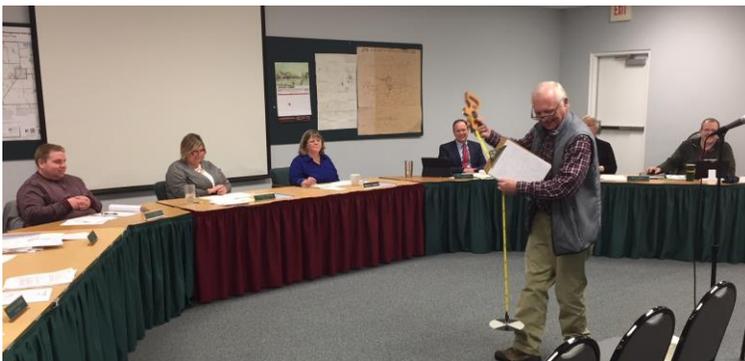
INVASIVE WEEDS - - PAST AND PRESENT *Continued*

Later that summer, a complete aquatic vegetation survey of the entire lake was undertaken by Dr. Douglas Pullman in conjunction with Kieser & Associates Environmental Science and Engineering of Kalamazoo. Their findings were a relief to the GLQO, as no other locations of starry stonewort were located in Gull Lake. Upon their recommendation, the two small areas of starry stonewort were immediately managed with herbicides and no further spread of the plant was noticed until 2017. Last summer, it was apparent that the small areas of growth of starry stonewort had definitely spread over about a five-acre area. Just under thirty residents and the country club own or use property along that lakeshore area and all agreed to have the starry stonewort immediately treated. PLM Lake & Land Management Corp. was hired and applied two applications of herbicides in hopes of managing the aquatic invasive species spread. Contributions from the residents and the GLQO paid for the treatment.

This summer, the GLQO has hired Progressive AE to do another complete aquatic vegetation survey of Gull Lake. For nearly three decades, their water resources specialists have collaborated with communities across Michigan on lake and watershed management projects. Our objective is to find aquatic invasive species that pose a risk to the quality of the lake and to develop a management plan if needed. Our hope is that the survey will find no additional areas of the lake requiring weed management. Yet, ultimately, we expect to find a need for a management plan that will address the aquatic invasive species problem and develop a way for residents to share in the cost of that treatment with assistance from area townships.

So far Gull and Long Lakes have been lucky. The majority of lakes in our area, and most in Michigan, already have been invaded by weeds and other invasive species that have severely affected the quality of the lakes. Lake residents are the sole funders of weed management services. The GLQO hopes that early detection and rapid response to the invaders of Gull Lake will keep the costs to a minimum and management more effective. It's a never-ending battle and one that is just starting here.

GLQO. . . Staying Connected in our Communities



The Gull Lake Watershed falls within four townships and two counties. GLQO makes it a priority to keep them informed. At left, Mike Gallagher displays the use of the Secchi Disk during his presentation updating the Richland Township board on GLQO efforts. Thanks to board members, Jim Collier, John Etcorn and Pete Hawk who have joined Mike for these presentations to the townships.

We thank the 2018 GLQO Individual and Family Members

Donald and Becky Adamski	Bruce and Donna Cohen	David and Michelle Halley	Christopher Light
Ann and Gregg Agens	Jim Collier and Stuart Verseman	Stephen Hamilton	Howard D. Linders
Scott and Holly Allen	Berry Collier	Pamela Harrington	Ron and Karen Logan
Steve Allen	Bob and Paula Cook	Fred and Nan Harrison	Eric and Charlene Longman
Mike and Lou Ann Ambro	Sally and Randy Crockett	Jeff Price and Sue Harrison	Joe and Madison Lukeman
Anonymous (13)	Jerry and Sharon Cross	Henry B. Hawk	Judy Maier
Bud and Judi Baldwin	Jim Dancy	Pete and Jo Hawk	Laura and Chris Maloney
Barbara Brundage and Bill Barton, Jr.	Ken and Teri Davis	Jim and Marsha Heath	Tom and Pam Mansager
David and Margaret Battjes	Philip and Terri Dawson	Rick and Shirley Hebert	Vicki and Mike Marcinek
Bryan and Courtney Beck	Jim and Barb DeKruyter	James and Patricia Heilenbach	Linda Markham
Mac and Susan Behnke	Maxine DeVrou	Mal and Pat Hickok	Ed and Nancy McCarty
Lynn and Tom Belco	Pam Dewey	Margaret A. Hogan	Tom and Valli McDougale
Dr. Kevin and Mary Beyer	Laurel and Mark Disney	Fred Holt	Russ and Connie McFee
Karl and Pamela Beysiegel	John and Susan Doster	Robert Hughes	JB and Alba McKay
Charles Bininger	Donald and Jeree Drake	Bruce Hutchinson	Amy and James Melvin
Margaret Black	Lisa J. Duffy	Robert and Amy Isom	Bob Millard
Garry Harris and Leigh Blackport	Dr. David Dvorak	Phil and Carey Isom	Kevin and Elizabeth Miller
Dick and Debbie Boris	Claire and Kris Eager	Fred James	Kay Gross and Gary Mittelbach
Deb Ball and Rod Borton	Ron Elenbaas	John and Judith Jereck	Ron and Joan Molitor
Kappy Boudeman	John and Janis Etcorn	Steve and Peggy Johnson	Mike and Susan Murphy
Sherwood and Sharon Boudeman	Carol L. Fetterolf	Randy Johnson	Stephen and Christine Murray
David and Heide Boutell	Wendy Field	Dorothy Jones	Brady/Barb Nitchman
Jon and Susan Bowers	Alice Fish	Darrell and Kim Junkins	Markley Noel
Robert and Dolores Boyle	Michael and Karen Fisher	Bob and Val Karam	Nancy L. Nordlie
Brenda Brenner	Ed and Nancy Fitzgerald	Mike Kasten	Paul and Sonia Norman
Bob and Susan Britigan	Rick and Pam Foster	John and Kathy Keagle	Kim and Valerie Nuyen
Joseph and Kelly Brock	Kai Free	Richard Keilen	Robert and Kay O'Boyle
Joe and Jane Brogger	Tom and Mary Jo Gallagher	Steve Keith	Sean and Nicol O'Brien
Nancy L. Brookins	Pat and Deb Gallagher	Brad and Lauren Keller	Amy and Jeff O'Brien
Cleve and Sue Brown	Mike and Kathy Gallagher	John E. Kelly	Tom and Charlene O'Neill
John and Judi Brown	Joni and Roger Ganger	Mark Kemple	Jerry and Max Orum
Michael and Sara Brundage	Jay Garside	Loretta Kerman	Edward Overbeck
Nick and Jane Bruns	Chip and Miranda Garside	Todd and Betsy Kingma	Christine McCarthy and Bob Paksi
Roger Buddig	John and Sharon Garside	Fred and Pat Kinney	Don and Ann Parfet
Keith Buell	Judy and Jamie Geary	Dean and Fran Kirk	William and Barbara Parfet
Rob and Amy Bulszewicz	Dawn Gershinzon	Rolf Kletzien	Preston and Barbara Parish
Randy and Karen Byrd	Jack S. Gesmundo	Garry and Claire Krouse	Donald and Sue Paulson
Jane Carpenter	Shahriar Ghoddousi	Shirley Kruger	Michael and Frances Peikert
John and Teresa Carr	Steve and Elaine Ginsberg	John and Martha Kuch	Karol Peterson
Janet and John Carrig	Don and Janet Gladstone	Denise and Mark Lancaster	Kim Ziel and Robert Phillips
Richard and Joanne Chamberlin	Bjorn and Lori Green	Richard L. Laninga	Laura and Gregg Pierce
David and Kathy Christ	Susan Grimm	Stephanie Larsen	Rene Poch
Gary Cirulli	Jim and Bonnie Grooters	Jim and Linda Lass	Martin and Carol Ranly
Donne Clark	Francis Grubelich	Phyllis Lavene	Alison Thor and Gerald Rapp
Wanda G. Clawson	Frank and Diane Guarisco	Patricia Lawrence	Robert and Margo Rebar
	William Guzy	Joanne and John Lawrence	Eric and Martha Reid
		Barbara and Rafael Ledesma	

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|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Dave and Michelle Reis | Esther M. Shaw | William D. Johnston | Bo and Mel Van Peenan |
| Robert D. and Mary Jo Rial | Jennalie and Joel Shepherd | and Ronda E. Stryker | Michelle and |
| Brian Rice | Shepherd Family, LLC | Carol Tedrow | Peter Van Wormer |
| Mark and Marymarie Rice | Richard and Johanna Shields | Gary and Karen Theisen | Dan Vander Meulen |
| Crystal and Rollin Richman | Linda Shierlaw | Ron and Edna Thompson | John and Cathryn VanderSalm |
| Robert and Mary L. Ringemann | Bruce and Kathy Shurtz | David and Carol Ticknor | Dan and Carol Vogt |
| Dean Rock | Bob and Marilyn Simon | Bill and Carolyn Ticknor | Jay and Stephanie Walbridge |
| Rob and Lori Rowe | Greg Smith and | Michelle and Chris Tracy | Donna and Dan Weaver |
| Bill and Jane Ryan | Michele Smith | Kevin Trayer | Weckler-Farwell |
| Brad and Rene Saar | Pete and Diane Czuk Smith | Jerry and | Karen and Mark Weishaar |
| Julia B. Sanger | Doug and Deidre Smith | Margaret Trepanier | James Westcott |
| Tom and Judy Schau | Don and Joyce Snow | Jim Turley | David and Cindy Wiedemer |
| Dick and Jean Schmitt | Margaret Spencer | Gail Turluck | Brook and Emily Wilke |
| Greg and Charlene Schofield | Carl and Cherie Spinden | Roger and Jeanne Turner | Bruce and Jeannie Williams |
| Robert Schuder | James Stahl | George and Gail Turner, Jr. | David Wilson |
| Jim and Deb Scott | Carole Stevens | Christopher Uggen | Brian and Teri Winne |
| Sam and Susan Sefton | Spencer and Carolyn Stiles | Brad Vandenberg and | Chris and Carie Wolters |
| Charles and Mary Shaw | Charles Stoddard | Amy Upjohn | Doug and Jackie Wunderly |
| Julie Shaw | Harry and Tineke Stolt | Sieto Van Dillen | |

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.

*We thank the
2018 GLQO
Corporate Members*

- Abigail Hayden Interior Design, LLC
 Boris Realtors
 Gull Lake Country Club
 Hawks Hollow Builders
 Mac's Garage, LLC
 Serafino's



GLQO gratefully acknowledges Gull Lake Ministries for inviting us to hold our regular board meetings at their facilities!

The Gull Lake Quality Organization

P.O. Box 144 / Richland, Michigan / 49083

Website: glqo.net

Contact: info@glqo.net



Upcoming Events

Tuesday, March 6, 2018 at 7:00 p.m.

GLQO Board Meeting

Kellogg Biological Station

Michigan Lake and Stream Associations

Annual Conference

Crystal Mountain Resort

April 20 & 21, 2018

Welcome to Summer Party

Sunday, June 3, 2018 at 5:30 p.m.

Gull Lake Country Club

GLQO Annual Meeting

Tuesday, August 7, 2018

Social: 6:30 p.m. Meeting 7:30 p.m.

Kellogg Manor House

2017-2018 Board of Directors

Vicki Gesmundo Marcinek (20-2)

President

Gary Mittelbach (20-1)

Vice President

Jim Collier (19-2)

Secretary

Don Paulson (20-2)

Treasurer

Bryan Beck (18-1)

John Etzcorn (19-1)

Kai Free (18-1)

Kathy Gallagher (20-2)

Mike Gallagher (20-2)

Tom Gallagher (20-1)

Pete Hawk (19-2)

Joe Lukeman (20-1)

Steve Keith (20-1)

Robert Phillips (19-1)

Gregg Pierce (20-1)

Linda Shierlaw (19-1)

Brook Wilke (20-1)

*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.

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.