

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.

Fish Tails: “Shy” and “Bold” Bluegill and Bass

By Gary Mittelbach

Animals, like people, can have personalities. We readily see personalities in our pets because we live with them day to day. “Fido” might be a lazy, lout and his companion “Clipper” a cheerful, peach of a fellow. Even squirrels on the bird feeder seem to have different behaviors – some are “aggressive”, some “playful”, some “shy”. Is there any truth to such observations? Do animals have “personalities”? The answer is yes. Scientists have shown that even the lowliest of animals (frogs, insects, snails (!)) can have consistent individual differences in behavior that can be viewed as personalities. Fish too have personalities - there are “shy” and “bold” fish.

Research on a variety of fish species has shown that individuals differ in their willingness to explore novel situations or to risk exposure to a predator to get food. These behaviors can be readily measured in the lab and different combinations of behaviors have been found to map onto general categories of “shy” and “bold”. What intrigues biologists is why such differences in “personalities” exist (that is, why don’t all individuals adopt a behavior that leads to the best growth, survivorship and reproduction). The answer seems to be that there are tradeoffs. Two recent Ph.D. students at MSU’s Kellogg Biological Station on Gull Lake (Melissa Kjelvik and Nick Ballew) showed that bluegill and largemouth bass have personalities that affect their growth and survival. Juvenile bluegill that were bold grew faster than their shyer counterparts; however, bold juvenile bluegill (and bass)



“Bold” Bluegill is first catch for three-year old angler.

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WINTER 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.

Beach/Neighborhood Annual Meetings

Many lakefront neighborhoods and beaches have associations that meet annually to discuss issues related to their neighborhood. If you would like an update on the quality of the lake and the activities of the GLQO we can do that for you. **Let us know when you are having your meeting and we will be there to give a brief and interesting report and to answer any questions neighbors have about the GLQO activities.** To schedule, please call Mike Gallagher at 269-209-1566.

Score The Shore

By Mike Gallagher

The lakes with the best water quality generally have a quality shoreline. Of the variables that affect the quality of a lake, the shoreline has the greatest impact. Unlike lake depth, weather, location, surroundings, and population density, the quality of the shoreline is often changed and improved by the lakefront owner.



This summer, the GLQO will participate in a project run by Michigan Clean Water Corps (MiCorps) called “Score the Shore”. The shores around Gull Lake will be divided into 1000-foot sections and will be visually surveyed by a team of trained volunteers who will enjoy many boat rides this summer. Scores will be calculated by collecting shoreline data such as number of homes and buildings, number and size of docks, shoreline erosion, percent of emergent/floating vegetation, percent of submerged vegetation, amount of downed trees/woody debris, percent of maintained lawn, shoreline erosion control practices and much more.

The information gathered during this assessment will allow our lake community to identify high quality areas that can be protected, as well as opportunities for improvement. 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.

According to MiCorps’ website, “It is important to understand that Score the Shore is a descriptive process for assessing shoreline quality on Michigan’s inland lakes. It is also a valuable educational tool. Score the Shore is not a regulatory program, nor is it intended to tell people what they can and cannot do on their property. The Michigan Department of Environmental



Quality’s Inland Lakes and Streams Program has responsibility for shoreline protection on public lakes. To learn about their shoreline protection program, including construction permitting and recommendations for shoreline management, visit www.mi.gov/deqinlandlakes.”

DNA Analysis Proves Starry Stonewort In Shallow Waters of Gull Lake

Last fall, GLQO sent samples of unidentified aquatic species to the New York Botanical Garden for DNA analysis. Dr. Kenneth A. Karol, associate curator of NYBG and an expert in the systematics of algae, recently reported the results of that analysis. The DNA confirmed that *Nitellopsis obtusa*, commonly known as starry stonewort, was only collected from the shallow water in the bay just north of the country club. Starry stonewort was not found in any specimens collected from depths of 25-35 feet. Other aquatic species positively identified were *Chara globularis* and *Nitella furcata*. Neither species are harmful to the lake quality. One other specimen collected is closely related to *Nitella Montana*. GLQO will collect additional samples this summer to send to Dr. Karol for positive identification. *Nitella Montana* also is not considered a harmful aquatic invasive species.



Nitella furcata sample

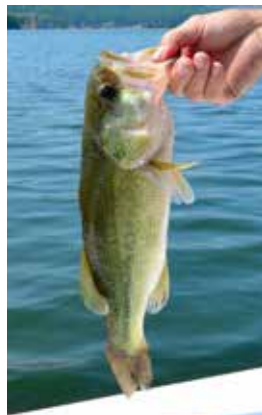
Why A Boat Wash? What's The Cost?

- According to the Michigan Inland Lakes Partnership website, the “University of Notre Dame’s Center for Aquatic Conservation recently estimated that the loss of ecosystem services directly attributed to aquatic invasive species is costing the Great Lakes region more than \$200 million per year.”
- Today, there are 12 AIS out there that have not yet invaded any lakes in Michigan.
- Every lake around Gull Lake with a public launch has at least one AIS and spends tens of thousands of dollars each year to manage those AIS.
- According to Prairieville Township Parks Department, over 3,500 boats are launched in Gull Lake, annually.
- Up to 98% of AIS can be cleaned off boats and trailers by proper boat washing.
- GLQO research of Michigan boat wash stations indicate that they range of cost from \$12,000 (mobile stations) to \$70,000 (permanent stations).
- Organizations that oversee launch sites (in Michigan) currently offering boat washes highly recommend that the boat wash be staffed. The annual staffing cost ranges between \$16,000 to \$25,000.

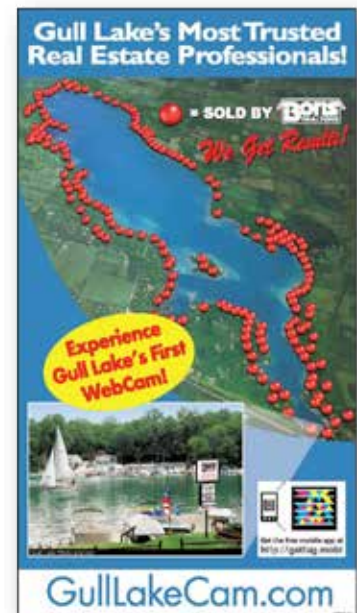


Fish Tails (continued)

had lower survivorship in the presence of predators. Being bold may benefit young fish by allowing them to find more food and grow faster, but carries the cost of increasing the risk of being eaten by other fish. Such tradeoffs are found in adult fish too. Nick Ballew showed that adult male bass that are bolder and more aggressive in guarding their nests are more successful in courting females and receive more eggs in the nest. But, boldness has a cost to adult bass, as bolder males that aggressively defend their nests are more likely to be caught by anglers. Even under “catch and release” there can be a mortality cost to boldness in bass, as nest predators (e.g., small fish, crayfish, turtles) can eat all the eggs and fry in the nest while the adult male is out of the water.



Surprising as it may seem, fish (like people) live in a world where personality matters and both “bold” and “shy” fish occur in our lakes.



GLQO Board Notes and Updates

GLQO 2016 Priority: To mobilize community leaders, riparians and boaters around the initiative to install a boat wash at the Prairieville Township Launch Site by spring of 2017.

There are five standing committees represented on the Gull Lake Quality Organization. They are the Boater Safety Committee, Communications Committee, Fisheries Committee, Membership Committee, and the Water Quality Committee. Look for updates from one (or more) of our committees in each newsletter or at www.glqo.net. For a complete listing of committee members, please visit [glqo.net](http://www.glqo.net).

Boater Safety: Pete Hawk, Chairperson

2016 Goal: Increase lines of communication and engagement with the Marine Patrol.

Communications: Tim Richardson and Kathy Gallagher, Co-chairpersons

2016 Goal: Website redevelopment and special communiqués with an emphasis on benefits of boat washing to prevent the spread of aquatic invasive species.

Fisheries: Bryan Beck, Chairperson

2016 Goal: Strengthen lines of communication and engagement with DNR and with local fisherman; circulate educational material related to the lake's fish populations and fishing the lake.

Membership: Jim Collier, Chairperson

2016 Goal: Streamline renewal process to encourage retention and continued growth in membership.

Water Quality: Mike Gallagher, Chairperson

2016 Goal: Education of township officials, community leaders, riparians and boaters regarding the dangers and costs of aquatic invasive species.

Gull Lake Water Levels Drop 8 Feet!

By David Halley

Do I have your attention?

Have you ever stopped to wonder what would happen if there was a major breach in the dam on Gull Creek that we so often take for granted?

When Michelle and I moved to our home on the lake in 2003, the previous homeowners (Bill and Betsi English) were gracious enough to give us an orientation to the mechanics and upgrades they had made to the home. I received two full folders of owners manuals and the names of various service providers they trusted. They also introduced us to the Gull Lake Quality Organization (GLQO) and the Gull Lake Association (GLA). The Englishes were and continue to be passionate about stewarding this grand resource, Gull Lake.

Bill has been president of the GLA since 2004. I was able to catch up with him recently and learn a little more of about the association.



Gull Lake Water Levels (continued)

The sole purpose of the GLA is to own, maintain and operate the dam that controls the water levels on Gull Lake. Membership is open to all lakefront property owners. Voting shares and modest annual assessments are determined based on lake frontage.

The Gull Lake Association was formed in 1921 to purchase the mortgage for the property and dam after the mill owned by the Price Cereal Food Co. failed. The dam had been used to power the mill from the late 1800s until 1906. By 1921 the dam was in need of repairs and the lake was at risk. The mills foundation is still visible from E De Ave, just east of the dam.

Ever since 1921, the GLA has regulated the water levels. Each fall, the level is dropped 8-12 inches to lessen potential ice damage to the shoreline. Each spring levels are brought back up. Throughout the summer adjustments are made to the gate of the primary spillway to adjust for precipitation. Volunteers monitor lake levels using several fixed reference points. One inch of rain in the community may translate to a three inch rise in the lake over a few days.



Gull Lake Dam after a ten-inch rainfall in 2008

The dam has a secondary spillway adjacent to and just east of the primary spillway. The secondary gate measures 12 inches high and is much wider than the primary. The level of the concrete for the secondary spillway is at the normal low water level. The gate is 12 inches high for a purpose. If water levels were to get over 12 inches high, water would automatically spill over the top of the gate on the secondary spillway. This 12 inch window of operation for Gull Lake water levels is the result of a court order issued in 1935. Prior to 1935, water levels were more variable. This disgruntled certain folks who grew tired of R Class sail boats running aground at the mouth of the bay.

GLA is run by volunteers. They are looking for additional volunteers to assist in the routine operations and clerical work. Annual assessments are used to fund regular state required dam inspections, tree and shrub removal from the earthen portion of the dam, routine concrete and gate maintenance and periodic repairs like replacing the rusty old secondary gate with a new stainless steel version. The largest expenditure goes to cover insurance at a cost of approximately \$5,000 annually.

How does your participation contribute? Whether it is hands-on work or helping fund the upkeep of the dam, many hands make light work and the GLA deserves every riparians participation. If you are already a member, thank you for your participation. If not, please consider joining close to 300 of your neighbors in guarding our wonderful resource.

A link to the GLA membership form can be found on their website, www.gulllakedam.com. For more information please contact: info@glassn.org.

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



I Just Love Gull Lake...*Centenarian, Betty McCarty Looks Back*



Elizabeth McCarty has spent almost 100 summers at Gull Lake. Recently, we had the opportunity to visit with Mrs. McCarty, who shared her love for the lake and her family's long history with Gull Lake.

Arriving in early summer and departing after Labor Day, the lure of Gull Lake created a lifetime of fond memories for this Highland Park resident and centenarian. It is the clear waters of Gull Lake for which Mrs. McCarty attributes her healthy longevity.

A Willys-Knight Touring Car was home for the annual, week-long drive from Tulsa, Oklahoma to Highland Park on Gull Lake. This yearly trek began shortly after she was born in 1915. Some years, the 1000-mile journey was prolonged by the rocky roads in Missouri or mud in Illinois. Camping out along the way, her parents slept in a tent attached to the car while Betty and her brother each got a car bench seat. Meals were prepared on the portable cook stove. Just like many generations, she couldn't sit still for the long ride on 32nd street from her grandfather's farm until she could park at the cottage and run down to the lake.

Their first home was a log cabin in Highland Park, which they built in the late 1920's. The logs were cut from her grandfather's farm near Vicksburg. Betty especially recalls the fireplace built from rocks hauled from her grandfather's farm. As a teenager, she helped unload the wagon and carry the rocks inside. Although now covered in white siding, the log home still sits on its original foundation. A garage built at the same time was converted into a card room for "the men" a few years later.



Thoughts of the Highland Park livery, streetcars, steamboat rides, wood boats, fishing along with the LaBelle Dance Hall and wooden slide are great memories. Today, it's hard to imagine night-time sailing to LaBelle and back to dance as a teenager! She most fondly recalls summers spent almost exclusively swimming in the beautiful crystal clear water. Each year, as they prepared to head home, her mother would scoop a quart of lake water to be used once back home in Tulsa. It would cure all ailments, keep their hair shiny and perhaps, be a reminder for them of summers to come.

Betty sold the house during WWII but years later rented back the "card room" each summer for her family of six to continue the Gull Lake tradition. Memories of the huge spread of shrimp cocktail at Gull Harbor Inn, bring a smile to Mrs. McCarty's face. It wasn't until 1960 that her family finally got a boat of their own. A slightly used, \$900, 1959 Turquoise Starcraft was just the ticket to haul from southern Illinois to Michigan every summer. She finally bought her current home in 1975, just a stone's throw from her original cottage.

Betty has instilled a multi-generational love for the lake as she shares the neighborhood and Gull Lake with her daughters, sons and their families. She still takes the wheel of her pontoon boat once in awhile and any boat ride above 20 MPH gets her hands in the air and a loud "WAHOO!" shout every time!

*We thank the 2016
GLQO Corporate Members*

Boris Realtors
Gull Lake Ministries

Gull Lake Marine
Hawks Hollow Builders

We thank the 2016 GLQO Individual and Family Members

Mike and Lou Ann Ambro	John and Janis Etzcorn	Richard Laninga	Tom and Judy Schau
Anonymous (16)	James A. Fish	Stephanie Larsen	Dick and Jean Schmitt
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Bud and Judi Baldwin	Ron and Judy Flachs	Charles and Phyllis Lavene	Tim and Judy Shank
Bryan and Courtney Beck	Jack and Patti Fleming	Jack and Camille Lawrence	Charles and Mary Shaw
Margie and Bob Berres	Rick and Pam Foster	Patricia L. Lawrence	Shepherd Family, LLC
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Dick and Debbie Boris	Mike and Kathy Gallagher	Barbara and Rafael Ledesma	Peter C. Smith & Diane M. Czuk Smith
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Sherwood & Kathryn Boudeman	Joni and Roger Ganger	Christopher Light	Joe and Lindsey Splendorio
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Cleve Brown	Shahriar Ghoddousi	Vicki and Mike Marcinek	William and Carolyn Ticknor
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Hunter Collier	Jay Hoorn	Christine McCarthy and Bob Paksi	Don Walbridge
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Ron Elenbaas	John Kelly	Tim Richardson	Drew and Rachel Worgess
James Elsener	Rolf and Judy Kletzien	Rollin and Crystal Richman	Doug and Jackie Wunderly
George Elsener Family	Shirley Kruger	Jim and Julie Richter	Harold Zeigler
Tom English	John and Martha Kuch	Bill Ryan	Marilyn Zheutlin
	Paul Kuchenbuch	Brad and Rene Saar	

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.

The Gull Lake Quality Organization

P.O. Box 34 / Hickory Corners, Michigan / 49060
Website: glqo.net
Contact: info@glqo.net

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Upcoming Events

March 6th – 9th
**Midwest Aquatic Plant Management Society
Annual Conference**
Amway Grand Rapids

Tuesday, March 8th at 7:00 p.m.
GLQO Board Meeting
Richland Area Community Center

April 28th – 30th
Michigan Inland Lakes Convention
Boyne Mountain Resort

Sunday, May 29th
Welcome to Summer Party
Gull Lake Country Club

Tuesday, March 8th at 7:00 p.m.
GLQO Board Meeting
Richland Area Community Center

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)**
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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.

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.