



GLQO Joins Forces to Host Mobile Boat Washes

By Anne Couture, GLQO President

Michigan's 2014 Aquatic Invasive Species (AIS) Awareness Week was kicked off by the inaugural AIS Landing Blitz on June 6th and 7th at 12 boating access sites around the state. The AIS Landing Blitz would not have been possible without the efforts of over 78 volunteers who contributed at least 347 hours to AIS education and outreach during the event. On June 6 and July 19, state agency staff from Michigan Departments of Environmental Quality (DEQ), Natural Resources (DNR), and Agriculture and Rural Development (MDARD) partnered with GLQO members and Prairieville Twp. Parks Commission staff to increase public awareness about AIS and assist boaters in taking preventative steps to avoid spreading these harmful species and comply with AIS-related laws.

Your Gull Lake Quality Organization hosted two day-long AIS education events at the Prairieville Township Park and Boat Launch. As an added attraction, we were one of the lucky locations to have hosted the MDEQ's new portable boat wash. The portable boat wash is an excellent tool to help educate boaters about current state law that requires all boaters to rinse, drain, and dry their boats after taking them out of a water body; ideally, before they leave a launch site. It is also important to



remove any visible weeds and other marine life (zebra

SUMMER 2014

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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. Lakes in the watershed, are identified on page 8.

GLQO Annual Meeting

You won't want to miss this year's annual meeting of the **Gull Lake Quality Organization**. It will be held on **Tuesday, August 12, 2014 at 7:00 p.m.** at the Richland Area Community Center.

This year's meeting features Kevin Walters, from the Michigan Department of Environmental Quality, talking about aquatic invasive species, Jeff White, from MSU Kellogg Biological Station, talking about zebra mussels and Professor Steve Hamilton, also from KBS, talking about phosphorus levels in Gull Lake.

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Mobile Boat Washes (continued)

mussels) that may be attached to the boat. These simple steps are extremely important in helping to prevent the spread of aquatic invasive species such as Eurasian watermilfoil, curlyleaf pondweed, quagga mussels, and zebra mussels.

One take-away from these events is the potential impact on the spread of AIS as a result of bass and other fishing tournaments. The tournament participants typically launch their boats in many lakes over a short period of time. A bass tournament came off the lake at the Township Park during both the June 6th and July 19th events. DEQ, DNR, MDARD and GLQO staff offered informational materials, as well as, a free boat wash – however, many of the bass fisherman indicated little to no interest in washing their boats or hearing about Michigan law. We observed many of the participants pulling their boats out very quickly and leaving Prairieville Park with boats dripping and no effort to inspect them for weeds and other aquatic species. We see this as a real opportunity to collaborate with Prairieville Twp. Parks Commission to consider requirements for fishing tournaments on Gull Lake. While the Parks Commission issues “permits” for tournaments, there is no fee and no particular requirements. Ideas and comments from members are welcome!

The presence of the portable boat wash inspired both GLQO Board Members and the Township to consider installation of a permanent boat wash at the Prairieville Township boat launch. If you are interested in helping to make this vision a reality, please don't hesitate to contact us!

Study: Time out of water endangers nests of bass

Excerpt reprinted with permission. Outdoor News/June 2014

Springfield, Ill. – Bass anglers have embraced catch-and-release fishing over the past two decades, a commitment to conservation that can pay off with future catches of bigger fish.

Researchers say that anglers concerned about bass populations in their favorite fishing holes should cut down on the time between the moment they catch a largemouth bass and the time they release it, especially during the early part of the fishing season. A recent University of Illinois study revealed that catch-and-release anglers who spend too much time admiring their catch of a male bass may give bass predators a window to invade a largemouth nest and eat young bass the adult male was protecting.

Fisheries biologists have long asserted that female largemouths abandon the nest immediately after laying eggs, leaving the male bass to defend the nests from predators.

In essence, time spent away from the nest during a catch-and-release event and the subsequent exhaustion it causes the male are critical to the survival of the embryos, particularly in lakes with high densities of brood predators, the study claims.

The number of fish that feed on young largemouths – primarily bluegills, pumpkinseeds, or rock bass – in a lake plays a big part in the equation.

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Bass nests (continued)

"One of the main conclusions was that in a lake where there are very few brood predators, when you angle a male away from his nest and then immediately release him, the chance of a negative impact is less, but if the nest is located in a part of a lake where there is a high density of brood predators, once the male is removed, predators get into the nest very quickly," said Jeff Stein, a senior research scientist with the Illinois State Natural History Survey and an adjunct professor at the University of Illinois.

"On average, the time it took brood predators to begin eating bass young was less than five minutes in cases where the nest was located near schools of brood predators," Stein noted. In the U of I study, 70 nests were located within nine lakes with natural largemouth bass populations. The numbers of known brood predators in each lake varied. Stein snorkeled in shallow water and observed the nests. He assigned scores representing the number of brood predators and the quality of parental care demonstrated by the largemouth bass males.

As part of the study, nesting males were captured and held in a livewell for 15 minutes, then released. According to Stein's records, it took an average of 30 minutes for the male bass to return to their nests.

"Casual recreational anglers may be afraid they're going to lose the catch and so they may play it a little more, which exhausts the fish more. After the fish is caught, it might accidentally flop around on the floor of the boat for a while. They may put it in a livewell if they're thinking of keeping it or until they get the camera out. Five minutes or more elapse."

When finally released, male bass are disoriented, "so they go to the bottom to sit and recover for a while and get their heart rate back to stasis," Stein said. "The fish is saying, 'OK, I lived through whatever that was. Now where is my nest?' and by the time it actually gets back to the nest it has been gone from it 30 minutes." (Please read the full story on *Outdoor News/June 2014*)

Did You Know?

There were many zebra mussels that died in Gull Lake during 2012-2013. Jeff White, Kellogg Biological Station, has extensively researched zebra mussels. His research continues. He talks about this recent change at the Gull Lake Quality Organization Annual Meeting. Be sure to join us to learn more... Tuesday, August 12th at 7:00 p.m. at the Richland Area Community Center.

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Fish Consumption Guidelines on Gull Lake - Eat Lower on the Foodchain

By Gary Mittelbach

Did you know that there are three fish species from Gull Lake which the Michigan DNR recommends **eating only one serving a month or less**? The three species are **largemouth bass, smallmouth bass, and northern pike**. The MDNR's recently released "Eat Safe Fish Guide" notes that these three species contain enough mercury to be of concern (mercury affects human brain development). Serving sizes vary depending on a person's weight and are listed as:

<u>Weight of Person</u>	<u>Serving size of fish</u>
45 lbs	2 oz per month
90 lbs	4 oz per month
180 lbs	8 oz per month

These recommendations apply to all individuals and **are not** specific to certain groups (such as pregnant women). They also apply to all sizes of bass and pike from Gull Lake. The full "Eat Safe Fish Guide" for all lakes in Michigan can be found on the web at:

http://www.michigan.gov/documents/mdch/MDCH_EAT_SAFE_FISH_GUIDE_-_SOUTHWEST_MI_WEB_455360_7.pdf

Why are largemouth and smallmouth bass and pike contaminated with mercury and how could this be happening in Gull Lake? The answers to these questions are straightforward, but troublesome.

First, the source of the mercury is not local. Rather, most of the mercury that gets into fish in Michigan lakes now comes from emissions from coal-burning power plants. (In the past garbage incinerators were also a major source.) Mercury enters the atmosphere from these coal-fired power plants and then enters our lakes through rain and snow. Prevailing westerly winds carry significant amounts of mercury from power plants in Illinois and the Chicago area, but in total there are over 140 coal-fired power plants in the eight states around the Great Lakes, including MI. So, coal-burning power plants are the main culprits for the mercury that enters our lakes.

Second, mercury accumulates in fish that are "high" in the food chain, such as bass and pike. Simple biology sets this in motion. At the base of the food chain are the phytoplankton (algae) that get their energy from sunlight and their nutrients from the water. These algae also absorb elements, such as mercury. Tiny algae are in turn eaten by zooplankton, which are in turn eaten by small fish (minnows and the like), which are in turn eaten by predatory fish (such as bass and pike). With each step up the food chain, the concentration of mercury in the tissues of animals increases, a process known as biomagnification. Bass and pike, being at the top of the food chain in Gull Lake, accumulate the highest concentrations of mercury. Further, unlike some contaminants such as PCBs, mercury accumulates in muscle, not fat. Therefore, it **can't** be removed from fish by trimming out the fatty parts before eating them. It's also important to note that Gull Lake isn't really that "special" in the concern over mercury in fish. Statewide guidelines for **any Michigan lake** recommend eating no more than two servings per month for bass under 18 inches (pike under 30 inches) and only one serving per month for bass over 18 inches (pike over 30 inches).

Fish Consumption Guidelines (continued)

What can you and I do about mercury in Gull Lake fish? First, know that new U.S. EPA rules to cut mercury emissions from coal-fired power plants were scheduled to go into effect this summer (2014). However, the U.S. House of Representatives and a number of state attorney generals (including Michigan Attorney General Bill Schuette) have fought these new regulations, requesting that the EPA delay implementing regulations on mercury reduction for 1-5 years. If you favor reduced mercury emissions from coal-fired power plants, then let your representatives know and also ask them to support cleaner alternatives for producing electricity (wind, natural gas). Finally, for your own good and the good of fishes, practice catch and release fishing for top predators such as bass and northern pike. **Eat fish that are lower on the food chain**, such as bluegill and perch, which don't contain high levels of mercury.

Your Actions (and reactions) Save Our Lakes, Our Birds, Our Fish...

By Jane Bruns

It is a beautiful Summer here in Michigan! A wonderful time to enjoy our lakes and outdoor living at its finest. As stewards of our lakes and streams, we must help to avoid the litter that can be unsightly and detrimental to wildlife and the overall health of our lakes.

Cigarette butts, snack wrappers, take-out food containers, beverage bottles and cans, plastic bags...these are items we find floating on the water and washing up on our beaches. Fish, birds and other aquatic life often mistake litter for food. The plastic takes up space in their stomachs so that they are unable to get the nourishment needed for survival. Many dead fish, mammals and birds have been found in our lakes with bottle caps, cigarette butts and other debris inside.

When you picnic or enjoy a day of boating on the lake, be sure to STASH YOUR TRASH. Plastic ice bags and grocery bags easily blow around in the wind. If you are boating, take a net along and pick up floating trash. It is amazing what you may find floating after a busy day on the lake...life vests, tubes, fenders, fishing bobbers, buckets, beach balls, paddles. It is nice to place them on your dock in hopes of someone claiming them, but more often than not, you become the proud owner!

Picking up trash that is not yours helps to maintain a clean, healthy lake and promotes lake stewardship for future generations. Remember, your actions (and reactions) save our lakes!



Lake Weeds. Good or Bad?

By Mike Gallagher

We have over 21 different plants that grow in Gull Lake and the watershed. Take a look below to see some of the more common plants present as you boat, swim, fish and enjoy your lake.



Northern Watermilfoil Abundant in Gull Lake in 4-20 feet. It is not harmful, but it can be a nuisance in swimming areas. Fish love it. You often see it floating after being cut by boat props or people. Floating fragments grow into a new plant. **Don't cut them!!!**



Chara Algae This is the most abundant aquatic plant that we found in Gull Lake but it is not a plant. It is an algae. It is found in 1-6 foot depths and is most noticeable starting late June. It feels like mush when you walk in it and it crunches if you squeeze it in your hand. It also has a fowl, musky odor. Look for it at calm shorelines such as Wildwood but not in wavy areas such as Willow Beach. The diving ducks love to eat it. It can be raked up and thrown away if it is a nuisance.



Eurasian Watermilfoil This aquatic plant has caused havoc for most lakes in Michigan. It is very invasive, grows quickly and can be a huge nuisance to boats and swimmers. It easily reproduces from cut and floating fragments. Some lakes have it so severe that they harvest it several times a summer. Other lakes successfully chemically treat it every 3-4 years and spot treat it every year. Residents on Little Crooked Lake, which is near Delton, spend about \$25,000/year in treatment. It was found in Gull Lake last summer in the bay. You will see it if you look off the end of the Bayview Market dock. It

is growing right next to Northern Watermilfoil. **Don't cut it!!!**

Variable-Leaf Watermilfoil This is another invasive plant that appears to be more common in Gull Lake than originally thought. The different varieties of milfoil are difficult to identify but a DNA analysis done last summer by Grand Valley State University confirmed that this plant is in Gull Lake in a number of areas. It grows just like Eurasian Watermilfoil and is treated in the same manner. **Don't cut it!!!** Clean it off your boats so you don't trailer it to other lakes!



Nitella This plant was found at 25-30' in almost every area when we dropped our retrieval rake last summer. It is not harmful or a nuisance at that depth. This summer it started to grow again in mid June and it will be thick on your anchor if you swim off your boat between Idlewild and Highland Park. Chara and Nitella look very similar. They differ in the depths which they are found.

American Pondweed and Illinois Pondweed Both of these plants grow in Gull Lake and were noticed two summers ago by many residents when their buds grew above the surface. They tended to be seen in 6-15' waters. With a very warm and early spring in 2012 they grew taller than ever. Both plants are native to Michigan and beneficial to the habitat of the lake.



Frequently Asked Questions About GLQO Dues

- **Dues apply to the calendar year (January 1 to December 31)**
- **An asterisk next to your name on any of our mailings means you're a paid 2014 member**
- **Want to receive newsletters via email only? Send an email to email_only@glqo.net or make note below (this saves us money in printing and postage!)**
- **Only current, paid members receive our Summer and Fall newsletters**

Your dues help fund the GLQO's numerous initiatives, including—but not limited to—Water Quality and Marine Patrol efforts

**Gull Lake Quality Organization
2014 Dues / Donation Request**

You can help to support the mission of the Gull Lake Quality Organization to address concerns and provide education regarding the use of natural resources of the Gull Lake Watershed.

Name: _____

Street: _____

City: _____ **State:** _____ **Zip:** _____

Street: _____

City: _____ **State:** _____ **Zip:** _____

Phone: _____ **Mobile Phone:** _____

I do not wish to have my name published on the GLQO website

I wish to receive the GLQO newsletter via email **Address:** _____

I wish to have my donation level kept confidential

Member Information

<u>Individual/Family Membership</u>			<u>Corporate Membership</u>		
___ Regular (\$35)	\$ _____		___ Silver (\$50)	\$ _____	
___ Supporting (\$50 to \$100)	\$ _____		___ Gold (\$100 to \$200)	\$ _____	
___ Sponsor (\$125 & Over)	\$ _____		___ Platinum (\$250 & Over)	\$ _____	
___ General Donation \$ _____			___ General Donation \$ _____		
___ Sheriff's Patrol \$ _____			___ Sheriff's Patrol \$ _____		
___ Water Quality Testing \$ _____			___ Water Quality Testing \$ _____		
Total \$ _____			Total \$ _____		

Basic Memberships

Additional Donations

Please mail this form and your check to: GLQO, P.O. Box 34, Hickory Corners, MI 49060

THE GULL LAKE QUALITY ORGANIZATION

P.O. Box 34 / Hickory Corners, Michigan / 49060
<http://www.glqo.net>
info@glqo.net



Upcoming Events

Tuesday, August 12th at 7:00 p.m.
GLQO Annual Meeting
Richland Area Community Center

Sunday, August 24th at 3:00 p.m.
Free Lakeside Concert
Kellogg Biological Station

Tuesday, September 23rd at 7:00 p.m.
GLQO Board Meeting
Richland Area Community Center

Tuesday, November 18th at 7:00 p.m.
GLQO Board Meeting
Richland Area Community Center

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*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.*